

**GOKHALE INSTITUTE MIMEOGRAPH SERIES NO. 8**

216

**UTILIZATION OF LONG-TERM FINANCE  
FOR NEW WELLS**

---

---

**D. B. KADAM**

---

**GOKHALE INSTITUTE OF POLITICS AND ECONOMICS,  
POONA 4 (INDIA)**

---

PRICE Rs. 12

*Gokhale Institute Mimeograph Series No. 8*

**UTILIZATION OF LONG-TERM FINANCE FOR NEW WELLS**

**UTILIZATION OF LONG-TERM FINANCE FOR  
NEW WELLS**

**D. B. Kadam**

**GOKHALE INSTITUTE OF POLITICS AND ECONOMICS,  
POONA 4 (INDIA)**

FOREWORD

The present study is a study of the financing of irrigation wells by the Land Development Banks. The problems are illustrated by the operations of the Ahmednagar District Land Development Bank in Maharashtra State in an area which has a low and uncertain rainfall, has no other irrigation facilities and which therefore is liable to frequent drought conditions. The study examines the problems of proper utilization of the loans, the problems arising out of failure to strike water, costs and returns where the investment has been successful and, in the light of experience, examines the terms and conditions under which finance is provided. We hope that the results will be found to be of general interest.

Gokhale Institute of  
Politics and Economics,  
Poona-4.

September, 1968.

V.M. Dandekar  
Director



## PREFACE

Utilization of long-term finance is a new problem in Maharashtra or other parts of India. The problem has, at present, acquired added significance in view of the paradoxical situation facing the country, under which, on the one hand, considerable long-term finance from land development banks is being made in the sinking of irrigational wells for securing the much-needed increase in agricultural production, but on the other hand, no adequate finance was issued by the land development banks for sinking of irrigational wells and also no proper use of the finance made available was made by the farmers. Public interest in the problem of non-full utilization of long-term finance has, unfortunately, not yet manifested itself in a systematic effort to study the various aspects of the utilization of long-term finance by the farmers.

In this work I have made a modest effort to fill this vacuum by conducting a study on the economic problems associated with the utilization of long-term finance issued by the Land Development Bank in the district of Ahmednagar, particularly in the famine-stricken talukas, in Maharashtra State. The study is based on the data collected by me from the owners of 277 selected wells.

The present study was conducted under the guidance of Professor V.M. Dandekar, Director, Gokhale Institute of Politics and Economics, Poona-4. I take this opportunity of recording my deep sense of gratitude for making valuable suggestions. To work under him was, indeed, a privilege.

Gokhale Institute of  
Politics and Economics,  
Poona-4.

September, 1968.

D.B. Kadam

## CONTENTS

	Foreword	v
	Preface	vii
	List of Tables	x
Chapter		Page
I	STATEMENT OF THE PROBLEM	1
II	GENERAL FEATURES OF AHMEDNAGAR DISTRICT	24
III	THE SURVEY - ITS DESIGN AND METHODOLOGY	35
IV	LONG-TERM FINANCE FOR SAMPLE WELLS	41
V	UTILIZATION OF LONG-TERM FINANCE FOR SAMPLE WELLS	65
VI	BENEFITS OF IRRIGATION	139
VII	ECONOMIC APPRAISAL OF THE PROGRAMME	155
APPENDICES		165
	GLOSSARY OF VERNACULAR TERMS	177
	SELECT BIBLIOGRAPHY	178

LIST OF TABLES

<u>Table No.</u>	<u>Title</u>	<u>Page</u>
1.1	Progress of States Cooperative Land Development Banks in respect of owned funds, fresh advances, recoveries, outstandings and overdues.	10
1.2	Purpose-wise classification of loans advanced by the States Cooperative Land Development Banks during 1963-64 to 1965-66	11
1.3	State-wise and year-wise total loans advanced and of which loans advanced for sinking of new wells and repairs to old wells during 1963-64 to 1965-66	13
1.4	Progress of the Maharashtra State Cooperative Land Development Bank in paid-up share capital, loan advanced, debentures floated, loans outstanding, total demand and recovery and net profit during 1960-61 to 1965-66	19
1.5	Purpose-wise classification of loans advanced by the Maharashtra State Cooperative Land Development Bank to Primary Cooperative Land Development Banks during 1960-61 to 1965-66	20
1.6	Primary Bank-wise total loans and of which loans for sinking of new wells in Maharashtra State for the year 1966-67	21
2.1	Variability of rainfall, 1865-1935 at Ahmednagar	25
2.2	Size of crop yields in Ahmednagar District, 1886-1938	26
2.3	Maximum, minimum and average rainfall in Ahmednagar District : Period 1931 to 1954	27
2.4	Progress of Ahmednagar District Cooperative Land Development Bank in membership, paid-up share capital, loan advanced, and loans outstanding during 1960-61 to 1965-66	31
2.5	Year-wise and Purpose-wise loans advanced by the Ahmednagar District Cooperative Land Development Bank during 1960-61 to 1965-66	32
2.6	Taluka-wise and year-wise loans advanced by the Ahmednagar District Cooperative Land Development Bank for new wells in Ahmednagar District during 1960-61 to 1965-66	34
3.1	Taluka-wise total number of wells, number of villages selected and the number of wells in such selected villages	40
3.2	Villages selected, number of wells from these villages and the amount of loan sanctioned and issued for them during 1960-61 to 1965-66	37

<u>Table No.</u>	<u>Title</u>	<u>Page</u>
4.1	Period required for sanction of loans (i.e. the period between the date of application and the date of actual receipt of the first instalment of loans) in respect of sample wells	54
4.2	Period taken by Block Development Office to recommend loan applications and by the Bank to sanction them in respect of sample wells	55
4.3	Period required to obtain second instalment of loan in respect of sample wells (i.e. period between two instalments of loan).	56
4.4	Year-wise sanction of loans for all sample wells during 1960-61 to 1965-66	58
4.5	Two-way classification of loans in respect of all sample wells	60
4.6	Purpose-wise deductions from the loans issued for sample wells	61
4.7	Number of sample wells and the amount of subsidy granted for them according to size of loan	64
5.1	Different ways of selecting the sites in respect of sample wells	66
5.2	Period required for the work of digging in respect of sample wells	68
5.3	Number of sample wells under each category according to size of loan-position during 1966-67	69
5.4	Expenditure on various items in respect of working wells according to size of loan	73
5.5	Sources of raising additional amount in respect of working wells according to size of holding	75
5.6	Cost of family labour employed for well-work and amount of loan consumed against it in respect of working wells, according to loan-size	76
5.7	Purpose-wise misutilization of loan in respect of working wells, according to loan-size	78
5.8	Demand, recovery and overdue position in respect of working wells as at 30-6-1966, according to size of loan	80
5.9	Demand, recovery and overdue position in respect of working wells, according to size of area brought under irrigation	81
5.10	Source-wise recovery of loan instalments in respect of working wells, according to size of holding	82

<u>Table No.</u>	<u>Title</u>	<u>Page</u>
5.11	Additional funds required for further deepening and construction in respect of working wells, according to size of loan	84
5.12	Rainfall in the selected five talukas of Ahmednagar District during 1962 to 1965.	85
5.13	Expenditure on various items in respect of wells that have gone dry or could not strike water, according to category of wells	86
5.14	Different sources of raising the additional amount in respect of wells that have gone dry or could not strike water, according to category of wells	88
5.15	Cost of family labour employed for the well-work and the amount of loan consumed against it in respect of wells that have gone dry or could not strike water, according to category of wells	90
5.16	Purpose-wise misutilization of loan in respect of wells that have gone dry or could not strike water, according to category of wells	91
5.17	Demand, recovery and overdue position in respect of wells that have gone dry or could not strike water as at 30-6-1966, according to category of wells	93
5.18	Source-wise recovery of loan instalments in respect of wells that have gone dry or could not strike water, according to category of wells	94
5.19	Additional funds, required for further deepening and for construction in respect of dry wells, according to size of loan	95
5.20	Expenditure on various items in respect of wells incomplete due to shortage of funds, according to size of loan	97
5.21	Different sources of raising the additional amount in respect of wells incomplete due to shortage of funds, according to size of holding	99
5.22	Cost of family labour and consumption of loan against it in respect of wells incomplete due to shortage of funds, according to size of loan	101
5.23	Purpose-wise misutilization of loan in respect of wells incomplete due to shortage of funds, according to size of loan	103
5.24	Demand, recovery and overdue position in respect of wells incomplete due to shortage of funds as at 30-6-1966, according to size of loan	104
5.25	Source-wise recovery of loan instalments in respect of wells incomplete due to shortage of funds, according to size of holding	106

<u>Table No.</u>	<u>Title</u>	<u>Page</u>
5.26	Additional funds required for further digging and for construction in respect of wells incomplete due to shortage of funds, according to size of loan	108
5.27	Expenditure on various items in respect of wells incomplete due to misutilization of loans, according to size of loan	109
5.28	Cost of family labour and consumption of loan against it in respect of wells incomplete due to misutilization of loan, according to size of loan	111
5.29	Purpose-wise misutilization of loan in respect of wells incomplete due to misutilization of loan, according to size of loan	112
5.30	Amounts misutilized according to percentage (of loan misutilized to net amount of loan received) groups of wells incomplete due to misutilization of loans, according to size of loan	114
5.31	Demand, recovery and overdue position in respect of wells incomplete due to misutilization of loan as at 30-6-1966, according to size of loan	116
5.32	Source-wise recovery of loan instalments in respect of wells incomplete due to misutilization of loan, according to size of holding	117
5.33	Item-wise expenditure in respect of wells whose work was in progress, according to size of loan	119
5.34	Cost of family labour and loan consumed against it in respect of wells whose work was in progress, according to size of loan	120
5.35	Purpose-wise misutilization of loan in respect of wells whose work was in progress, according to size of loan	122
5.36	Issue and disbursement of loans, costs of wells, additional amounts spent and loans utilized for other purposes in respect of all sample wells, according to category of wells	124
5.37	Sources of additional amount spent in respect of all sample wells according to category of wells	127
5.38	Cost of family labour and consumption of loan against it in respect of all sample wells, according to category of wells	129
5.39	Purpose-wise misutilization of loan in respect of all sample wells, according to category of wells	130
5.40	Demand, recovery and overdue position in respect of all sample wells, according to category of wells	133

<u>Table No.</u>	<u>Title</u>	<u>Page</u>
5.41	Demand, recovery and overdue position according to number of instalments due for recovery in respect of all sample wells during 1961-62 to 1965-66	134
5.42	Source-wise recovery of loan instalments in respect of all sample wells, according to category of wells	136
5.43	Additional funds required for the work of further digging and construction of wells and for associated items in respect of all sample wells, according to category of wells	137
6.1	Cropping pattern before and after irrigation in respect of working wells	140
6.2	Gross farm receipts before and after irrigation in respect of working wells	143
6.3	Gross farm receipts per cropped acre before and after irrigation in respect of working wells	146
6.4	Values of aggregate gross production before and after irrigation, aggregate gross additional farm receipts, percent aggregate gross additional farm receipts and average gross additional farm receipts per net acre sown during 1964-65 to 1966-67, in respect of working wells	149
6.5	Additional current farm expenses (excluding family labour) arising out of irrigation in respect of working wells	150
6.6	Net additional farm receipts in 1964-65, 1965-66 and 1966-67 in respect of working wells	153
6.7	Net return on investment on working wells for 1964-65, 1965-66 and 1966-67	154
7.1	Average loan issued and average loan requirements per well, according to category of wells	157

## CHAPTER I

### STATEMENT OF THE PROBLEM

The object of this introductory chapter is to state the problem attempted to be tackled in this work and provide the appropriate background information. The topics discussed in this chapter include the need for irrigation, place of wells in Indian agriculture, need for long-term finance for wells, genesis of Land Development Banks, progress of long-term finance for wells in India and Maharashtra State, object and significance of the present study.

#### 1.1 Need for Irrigation

In a country like India, with several pockets of low and precarious rainfall, the need for irrigation is obvious. Although the area under irrigation expanded greatly since the Irrigation Commission of 1901-03 reported, there are still numerous tracts in which the agriculturists' greatest need is an assured water supply, and in which water is the most potent agent for increasing the yield of crops. <sup>1/</sup> Although India has large acreage under irrigation, the proportion of irrigated to cropped area was 24 percent in undivided India; while in the post-partition India, the corresponding figure was only 19 percent. <sup>2/</sup> The unequal distribution of irrigation facilities and allocation of some food surplus areas to Pakistan aggravated the food shortage which India had been experiencing for some years prior to the Partition. <sup>3/</sup> At present irrigation is required in India not only for rendering agriculture in vast areas secure against frequent droughts but also for generating a surplus in the agricultural sector for financing plans of economic development. <sup>4/</sup> The irrigation policy of the first three Five Year Plans was, accordingly, oriented at a cost of Rs. 511 crores in the First Five Year Plan, Rs. 515 crores in the Second Five Year Plan and Rs. 827 crores in the Third Five Year Plan. <sup>5/</sup> The Draft Fourth Plan also envisaged an outlay of Rs. 1369 crores for the development of irrigation. <sup>6/</sup> Out of Rs. 827 crores in the Third Five Year Plan, Rs. 177 crores were proposed for minor irrigation and of Rs. 1369 crores in the Fourth Five Year Plan, Rs. 520 crores were meant for minor irrigation. Targets for the acreage that would be brought under irrigation in the Third and Fourth Five Year Plans were 25.60 million acres (of which 50% under minor irrigation) and 26.00 million acres (of which 17.00 million acres under minor irrigation)

---

<sup>1</sup> The Famine Inquiry Commission, Final Report, 1945, p. 129.

<sup>2</sup> Report of the Grow More Food Enquiry Committee, Government of India, Ministry of Food and Agriculture, 1952, p. 5.

<sup>3</sup> Ibid.

<sup>4</sup> The First Five Year Plan, Government of India, Planning Commission, New Delhi, 1953, p. 44.

<sup>5</sup> The Third Five Year Plan, Government of India, Planning Commission, New Delhi, 1961, pp. 59 and 85.

<sup>6</sup> The Fourth Five Year Plan - A Draft Outline, Government of India, Planning Commission, New Delhi, 1966, pp. 48 and 72.



respectively. <sup>7/</sup> The problem of achieving full utilization of facilities generated by minor irrigation works assumes importance, because minor works have been assigned a special role in the Five Year Plans in view of the capacity of such works to yield quicker and diffused results. <sup>8/</sup> Never before, in the history of development of irrigation in the Country, has Government's attention been so much focussed on the construction and improvement of minor irrigation works as it is today. <sup>9/</sup> Increased food production through a large-scale intensive agricultural programme has become crucial and irrigation occupies the most important place in the programme. <sup>10/</sup>

## 1.2 Place of Wells in Indian Agriculture

The dependence on well irrigation (which is a part of minor irrigation) in the Country will ever continue to remain for various factors. The Indian Irrigation Commission of 1901-03 observed in regard to irrigation from wells: "It has been shown that well-irrigation varies in extent to an extraordinary degree in the different provinces and the variation is presumably due to immutable differences of physical conditions. It is, however, certain that there is no single province in which this form of irrigation might not be very largely extended with advantage. Wells are so essential to successful cultivation, and to the maintenance of a dense population, that endeavours to multiply them should be maintained and sustained until the very maximum numbers have been reached which can profitably be employed. There are also tracts in which water lies so close to the surface that canal irrigation may be not only unnecessary but actually harmful, but in which, nevertheless, irrigation of some kind is urgently required in order to get full production in ordinary years and to save the crops in times of drought. For such tracts wells are a necessity. In other tracts .... wells are of immense service in supplementing deficiencies in supply. In all such places the construction of wells should be liberally encouraged." <sup>11/</sup>

The Famine Inquiry Commission of 1945 has also observed that "Wells are a most important source of irrigation and if the area under irrigation is to expand to the full extent, a large increase in the numbers of wells is imperative." <sup>12/</sup>

---

<sup>7</sup> Ibid., p. 185. (The figure for minor irrigation for the Fourth Plan includes 12.0 million acres of newly irrigated area besides area under drainage, flood control, etc.)

<sup>8</sup> Ibid., p. 185. (The importance of the minor irrigation works is also clear from the fact that more than fifty percent of the area proposed to be brought under irrigation, is expected to be irrigated under minor works.)

<sup>9</sup> Manual for Minor Irrigation Works, Community Projects Administration, Government of India, 1956, p. 1.

<sup>10</sup> Ibid.

<sup>11</sup> The Indian Irrigation Commission of 1901-03, Report, p. 52.

<sup>12</sup> The Famine Inquiry Commission of 1945, Final Report, p. 135.

### 1.3 Need for Long Term Finance for Wells

The construction of a well involves considerable capital outlay <sup>13/</sup> and there is little chance of an appreciable acceleration in the rate of construction of wells, unless funds in the way of loans and grants are provided by Government. <sup>14/</sup> The irrigation Commission of 1901-03 expressed the opinion that the chief way in which Government can assist in extending well irrigation, is by liberal advances (takavi loans) under the Land Improvement Loans Act (XIX of 1883). The Famine Inquiry Commission has also endorsed this view and also suggested an alternative procedure for advances to be made by Land Mortgage Banks. <sup>15/</sup>

In view of an urgent and important need of irrigational wells in Indian agriculture, as a result of realization at various levels the need for increased agricultural production to meet the Country's growing requirements of food products, long-term credit for new wells by Land Development Banks in the Country has gained momentum in recent years. <sup>16/</sup> While the Nation expects that the cultivator should bring out as much produce as possible from his land, it also becomes the responsibility of the Nation as a whole to provide all the facilities including adequate and timely long-term credit <sup>17/</sup> for construction of new wells at cheaper rate of interest, the farming community requires. <sup>18/</sup> The economic conditions of the farmers are such that they are not in a position to make capital investment on land from out of their own resources. <sup>19/</sup> The primary need is, therefore, to provide long-term credit to the farmer in such a way as to make the capital, thus, provided available to him for a duration long enough to enable repayment out of the income earned over the years. <sup>20/</sup> If on the other hand he is compelled to repay the loan early, and if the time of repayment happens to coincide with the period in which little credit would be available, the cultivator will have to face the problem of getting the loan renewed again and again; and exorbitant rates of interest will be charged for this. <sup>21/</sup> Capital costs can, therefore, be recovered over a number of years.

<sup>13/</sup> Report on Minor Irrigation Works (Maharashtra State), Committee of Plan Projects (Irrigation Team), New Delhi, 1963, p. 39. (Cost of sinking of wells in the Deccan varies from Rs. 3000 to Rs. 5000, and normal total well is about 40 to 50 feet deep.

<sup>14/</sup> The Famine Inquiry Commission, Final Report, 1945, p. 136.

<sup>15/</sup> Ibid., p. 137.

<sup>16/</sup> The Government of Maharashtra has transferred the entire Taccavi business to Land Development Banks from 1962.

<sup>17/</sup> The Reserve Bank of India, Preliminary Report, 1936, p. 12. The pressing need of the farmer is the provision of long-term credit and the same is not readily available to the farmer in most of the underdeveloped countries. This has been very emphatically stated by the Reserve Bank of India as early as 1936, in their note known as the Preliminary Report. The note states: "The long-term credit is more important and if any steps are to be taken to make the agriculturists creditworthy, this is the first problem which is to be tackled."

<sup>18/</sup> Third Five Year Plan, Maharashtra State 1961, p.37.

Contd...

#### 1.4 Genesis of Land Development Banks

Finding credit for the farmer suffers from three basic difficulties. Firstly, the return on investment is neither so high nor quick as in commerce and industry; secondly, the repayment has to be over a long period, and thirdly, the security offered is legally complex and difficult to realise. Agriculture is, therefore, totally excluded from the normal financial facilities available to commerce and industry. Hence, the legendary stranglehold which the moneylender had over the peasant. Where the security is uncertain, resources meagre and repayment slow, credit becomes costly. Instead of being an instrument for the peasant's prosperity, it was the instrument of his ruin.

The cultivators were often at the mercy of moneylenders and suffered heavily under the impact of natural calamities, a fact which did not escape notice of the then Indian Rulers. This led to the system of Government advances as an ameliorative measure. In this connection, the Royal Commission on Agriculture observed: "In normal times, the village moneylender seems to have met the normal needs but in times of severe drought or widespread calamity, his resources proved unequal to the strain upon them and long before the British acquired control, the rulers of the day were accustomed to grant loans to the cultivators of the soil." 22/

The British Administrators continued the system of making advances to agriculturists. In 1793, various regulations were issued providing for advances by Government to cultivators for agricultural purposes. These regulations were followed by a series of enactments such as Northern India Taccavi Act, 1879 and Land Improvement Act, 1871, which was amended by the Act of 1876. Ultimately they were replaced by the Land Improvement Loans Act, 1883 and the Agriculturists' Loans Act, 1884. The Land Improvement Loans Act empowered local Governments to issue loans for the purpose of making any improvement on land, to any person having a right to make that improvement. The Agriculturists Loans Act empowered State Governments to make loans to owners and occupiers of arable land for the relief of distress, purchase of seed, cattle or any other purpose connected with agricultural objects but not specified in the Land Improvement Loans Act. Thus, local Governments were empowered by the two Acts to issue loans to cultivators for all purposes of agriculture and relief of distress.

---

It was proposed to finance 64,000 new wells at a cost of Rs. 359.40 lakhs under the State Plan Outlay and Rs. 847.00 lakhs outlay by Land Development Banks during the Third Five Year Plan.

19/ M.G.Mehkri, Deputy Governor, Reserve Bank of India, Land Mortgage Banks, 1951, p. 1.

20/ Louis M. Tardy, Report on the System of Agricultural Credit and Insurance, p. 35.

21/ Dr. S.N.Ghosal, Agricultural Financing in India, 1963, p. 15.

22/ The Royal Commission on Agriculture, 1928, p. 417.

"In spite of the rapid growth of commerce and improvements in communication, the Committee on Taccavi Loans and Cooperative Credit observed: "in the latter half of the 19th century, the economic conditions of the peasants did not improve. Their indebtedness increased, usury was still rampant, agricultural methods did not change and the old unsatisfactory features of the backward rural economy seemed destined to remain." <sup>23/</sup> A few years later the Madras Government thought of introducing Cooperative Movement in India as an effective measure to improve the conditions of agriculturists and deputed Sir Frederick Nicholson to study the Cooperative Movement in foreign countries, who in 1895 reported that the future of rural credit lies with those who being of the people, live among the people and yet by their intelligence, prescience and energy are above the people. <sup>24/</sup>

Following the inauguration of the Cooperative Movement in 1904, Credit Societies were encouraged to advance long-term loans along with short-term loans subject to certain limitations. It was, however, soon realised that this type of mixed business had landed the societies into difficulties on account of the special features of long-term loans as given below: <sup>25/</sup>

(1) The long-term loans are to be repaid over a period of more than five years. The deposits of cooperative societies and banks are for short periods. Thus, if the overdue instalments are accumulated for a number of years, the resources of the cooperative banks would be locked up. It is, therefore, unsound to utilize the short-term funds of such institutions for long-term needs. The period of repayment of such loans should necessarily be linked up with the period of borrowings of the bank.

(2) Long-term loans are advanced out of the funds raised by way of floating debentures for which Sinking Fund is required to be created unlike short or medium-term loans.

(3) Long-term loans are advanced against the landed property. It is quite essential that the ownership rights and title to the lands are proved by verification of the records of rights, etc. Such technical job has to be carried through technically trained staff.

(4) The inquiry into the processing of loan application viz. valuation of lands, arriving at the repaying capacity of the borrower, feasibility of the scheme of land improvement, etc. is a specialised job and has, therefore, to be entrusted to specially trained officers.

---

<sup>23/</sup> Report of the Committee on Taccavi Loans and Cooperative Credit, Ministry of Community Development and Cooperation, Government of India, 1962, p. 5.

<sup>24/</sup> F.A. Nicholson, Report regarding the possibility of introducing Land and Agricultural Banks into the Madras Presidency, Vol. I, 1895, p. 667.

<sup>25/</sup> The Bombay State Cooperative Land Mortgage Bank, Souvenir, 1965, pp. 4 and 5.

<u>Table No.</u>	<u>Title</u>	<u>Page</u>
5.41	Demand, recovery and overdue position according to number of instalments due for recovery in respect of all sample wells during 1961-62 to 1965-66	134
5.42	Source-wise recovery of loan instalments in respect of all sample wells, according to category of wells	136
5.43	Additional funds required for the work of further digging and construction of wells and for associated items in respect of all sample wells, according to category of wells	137
6.1	Cropping pattern before and after irrigation in respect of working wells	140
6.2	Gross farm receipts before and after irrigation in respect of working wells	143
6.3	Gross farm receipts per cropped acre before and after irrigation in respect of working wells	146
6.4	Values of aggregate gross production before and after irrigation, aggregate gross additional farm receipts, percent aggregate gross additional farm receipts and average gross additional farm receipts per net acre sown during 1964-65 to 1966-67, in respect of working wells	149
6.5	Additional current farm expenses (excluding family labour) arising out of irrigation in respect of working wells	150
6.6	Net additional farm receipts in 1964-65, 1965-66 and 1966-67 in respect of working wells	153
6.7	Net return on investment on working wells for 1964-65, 1965-66 and 1966-67	154
7.1	Average loan issued and average loan requirements per well, according to category of wells	157

## CHAPTER I

### STATEMENT OF THE PROBLEM

The object of this introductory chapter is to state the problem attempted to be tackled in this work and provide the appropriate background information. The topics discussed in this chapter include the need for irrigation, place of wells in Indian agriculture, need for long-term finance for wells, genesis of Land Development Banks, progress of long-term finance for wells in India and Maharashtra State, object and significance of the present study.

#### 1.1 Need for Irrigation

In a country like India, with several pockets of low and precarious rainfall, the need for irrigation is obvious. Although the area under irrigation expanded greatly since the Irrigation Commission of 1901-03 reported, there are still numerous tracts in which the agriculturists' greatest need is an assured water supply, and in which water is the most potent agent for increasing the yield of crops. <sup>1/</sup> Although India has large acreage under irrigation, the proportion of irrigated to cropped area was 24 percent in undivided India; while in the post-partition India, the corresponding figure was only 19 percent. <sup>2/</sup> The unequal distribution of irrigation facilities and allocation of some food surplus areas to Pakistan aggravated the food shortage which India had been experiencing for some years prior to the Partition. <sup>3/</sup> At present irrigation is required in India not only for rendering agriculture in vast areas secure against frequent droughts but also for generating a surplus in the agricultural sector for financing plans of economic development. <sup>4/</sup> The irrigation policy of the first three Five Year Plans was, accordingly, oriented at a cost of Rs. 511 crores in the First Five Year Plan, Rs. 515 crores in the Second Five Year Plan and Rs. 827 crores in the Third Five Year Plan. <sup>5/</sup> The Draft Fourth Plan also envisaged an outlay of Rs. 1369 crores for the development of irrigation. <sup>6/</sup> Out of Rs. 827 crores in the Third Five Year Plan, Rs. 177 crores were proposed for minor irrigation and of Rs. 1369 crores in the Fourth Five Year Plan, Rs. 520 crores were meant for minor irrigation. Targets for the acreage that would be brought under irrigation in the Third and Fourth Five Year Plans were 25.60 million acres (of which 50% under minor irrigation) and 26.00 million acres (of which 17.00 million acres under minor irrigation)

---

<sup>1</sup> The Famine Inquiry Commission, Final Report, 1945, p. 129.

<sup>2</sup> Report of the Grow More Food Enquiry Committee, Government of India, Ministry of Food and Agriculture, 1952, p. 5.

<sup>3</sup> Ibid.

<sup>4</sup> The First Five Year Plan, Government of India, Planning Commission, New Delhi, 1953, p. 44.

<sup>5</sup> The Third Five Year Plan, Government of India, Planning Commission, New Delhi, 1961, pp. 59 and 85.

<sup>6</sup> The Fourth Five Year Plan - A Draft Outline, Government of India, Planning Commission, New Delhi, 1966, pp. 48 and 72.

respectively. <sup>7/</sup> The problem of achieving full utilization of facilities generated by minor irrigation works assumes importance, because minor works have been assigned a special role in the Five Year Plans in view of the capacity of such works to yield quicker and diffused results. <sup>8/</sup> Never before, in the history of development of irrigation in the Country, has Government's attention been so much focussed on the construction and improvement of minor irrigation works as it is today. <sup>9/</sup> Increased food production through a large-scale intensive agricultural programme has become crucial and irrigation occupies the most important place in the programme. <sup>10/</sup>

## 1.2 Place of Wells in Indian Agriculture

The dependence on well irrigation (which is a part of minor irrigation) in the Country will ever continue to remain for various factors. The Indian Irrigation Commission of 1901-03 observed in regard to irrigation from wells: "It has been shown that well-irrigation varies in extent to an extraordinary degree in the different provinces and the variation is presumably due to immutable differences of physical conditions. It is, however, certain that there is no single province in which this form of irrigation might not be very largely extended with advantage. Wells are so essential to successful cultivation, and to the maintenance of a dense population, that endeavours to multiply them should be maintained and sustained until the very maximum numbers have been reached which can profitably be employed. There are also tracts in which water lies so close to the surface that canal irrigation may be not only unnecessary but actually harmful, but in which, nevertheless, irrigation of some kind is urgently required in order to get full production in ordinary years and to save the crops in times of drought. For such tracts wells are a necessity. In other tracts .... wells are of immense service in supplementing deficiencies in supply. In all such places the construction of wells should be liberally encouraged." <sup>11/</sup>

The Famine Inquiry Commission of 1945 has also observed that "Wells are a most important source of irrigation and if the area under irrigation is to expand to the full extent, a large increase in the numbers of wells is imperative." <sup>12/</sup>

---

<sup>7</sup> Ibid., p. 185. (The figure for minor irrigation for the Fourth Plan includes 12.0 million acres of newly irrigated area besides area under drainage, flood control, etc.)

<sup>8</sup> Ibid., p. 185. (The importance of the minor irrigation works is also clear from the fact that more than fifty percent of the area proposed to be brought under irrigation, is expected to be irrigated under minor works.)

<sup>9</sup> Manual for Minor Irrigation Works, Community Projects Administration, Government of India, 1956, p. 1.

<sup>10</sup> Ibid.

<sup>11</sup> The Indian Irrigation Commission of 1901-03, Report, p. 52.

<sup>12</sup> The Famine Inquiry Commission of 1945, Final Report, p. 135.

### 1.3 Need for Long Term Finance for Wells

The construction of a well involves considerable capital outlay <sup>13/</sup> and there is little chance of an appreciable acceleration in the rate of construction of wells, unless funds in the way of loans and grants are provided by Government. <sup>14/</sup> The irrigation Commission of 1901-03 expressed the opinion that the chief way in which Government can assist in extending well irrigation, is by liberal advances (takavi loans) under the Land Improvement Loans Act (XIX of 1883). The Famine Inquiry Commission has also endorsed this view and also suggested an alternative procedure for advances to be made by Land Mortgage Banks. <sup>15/</sup>

In view of an urgent and important need of irrigational wells in Indian agriculture, as a result of realization at various levels the need for increased agricultural production to meet the Country's growing requirements of food products, long-term credit for new wells by Land Development Banks in the Country has gained momentum in recent years. <sup>16/</sup> While the Nation expects that the cultivator should bring out as much produce as possible from his land, it also becomes the responsibility of the Nation as a whole to provide all the facilities including adequate and timely long-term credit <sup>17/</sup> for construction of new wells at cheaper rate of interest, the farming community requires. <sup>18/</sup> The economic conditions of the farmers are such that they are not in a position to make capital investment on land from out of their own resources. <sup>19/</sup> The primary need is, therefore, to provide long-term credit to the farmer in such a way as to make the capital, thus, provided available to him for a duration long enough to enable repayment out of the income earned over the years. <sup>20/</sup> If on the other hand he is compelled to repay the loan early, and if the time of repayment happens to coincide with the period in which little credit would be available, the cultivator will have to face the problem of getting the loan renewed again and again; and exorbitant rates of interest will be charged for this. <sup>21/</sup> Capital costs can, therefore, be recovered over a number of years.

<sup>13/</sup> Report on Minor Irrigation Works (Maharashtra State), Committee of Plan Projects (Irrigation Team), New Delhi, 1963, p. 39. (Cost of sinking of wells in the Deccan varies from Rs. 3000 to Rs. 5000, and normal total well is about 40 to 50 feet deep.

<sup>14/</sup> The Famine Inquiry Commission, Final Report, 1945, p. 136.

<sup>15/</sup> Ibid., p. 137.

<sup>16/</sup> The Government of Maharashtra has transferred the entire Taccavi business to Land Development Banks from 1962.

<sup>17/</sup> The Reserve Bank of India, Preliminary Report, 1936, p. 12. The pressing need of the farmer is the provision of long-term credit and the same is not readily available to the farmer in most of the underdeveloped countries. This has been very emphatically stated by the Reserve Bank of India as early as 1936, in their note known as the Preliminary Report. The note states: "The long-term credit is more important and if any steps are to be taken to make the agriculturists creditworthy, this is the first problem which is to be tackled."

<sup>18/</sup> Third Five Year Plan, Maharashtra State 1961, p.37.

Contd...



#### 1.4 Genesis of Land Development Banks

Finding credit for the farmer suffers from three basic difficulties. Firstly, the return on investment is neither so high nor quick as in commerce and industry; secondly, the repayment has to be over a long period, and thirdly, the security offered is legally complex and difficult to realise. Agriculture is, therefore, totally excluded from the normal financial facilities available to commerce and industry. Hence, the legendary stranglehold which the moneylender had over the peasant. Where the security is uncertain, resources meagre and repayment slow, credit becomes costly. Instead of being an instrument for the peasant's prosperity, it was the instrument of his ruin.

The cultivators were often at the mercy of moneylenders and suffered heavily under the impact of natural calamities, a fact which did not escape notice of the then Indian Rulers. This led to the system of Government advances as an ameliorative measure. In this connection, the Royal Commission on Agriculture observed: "In normal times, the village moneylender seems to have met the normal needs but in times of severe drought or widespread calamity, his resources proved unequal to the strain upon them and long before the British acquired control, the rulers of the day were accustomed to grant loans to the cultivators of the soil." 22/

The British Administrators continued the system of making advances to agriculturists. In 1793, various regulations were issued providing for advances by Government to cultivators for agricultural purposes. These regulations were followed by a series of enactments such as Northern India Taccavi Act, 1879 and Land Improvement Act, 1871, which was amended by the Act of 1876. Ultimately they were replaced by the Land Improvement Loans Act, 1883 and the Agriculturists' Loans Act, 1884. The Land Improvement Loans Act empowered local Governments to issue loans for the purpose of making any improvement on land, to any person having a right to make that improvement. The Agriculturists Loans Act empowered State Governments to make loans to owners and occupiers of arable land for the relief of distress, purchase of seed, cattle or any other purpose connected with agricultural objects but not specified in the Land Improvement Loans Act. Thus, local Governments were empowered by the two Acts to issue loans to cultivators for all purposes of agriculture and relief of distress.

---

It was proposed to finance 64,000 new wells at a cost of Rs. 359.40 lakhs under the State Plan Outlay and Rs. 847.00 lakhs outlay by Land Development Banks during the Third Five Year Plan.

19/ M.G.Mehkri, Deputy Governor, Reserve Bank of India, Land Mortgage Banks, 1951, p. 1.

20/ Louis M. Tardy, Report on the System of Agricultural Credit and Insurance, p. 35.

21/ Dr. S.N.Ghosal, Agricultural Financing in India, 1963, p. 15.

22/ The Royal Commission on Agriculture, 1928, p. 417.

"In spite of the rapid growth of commerce and improvements in communication, the Committee on Taccavi Loans and Cooperative Credit observed: "in the latter half of the 19th century, the economic conditions of the peasants did not improve. Their indebtedness increased, usury was still rampant, agricultural methods did not change and the old unsatisfactory features of the backward rural economy seemed destined to remain." <sup>23/</sup> A few years later the Madras Government thought of introducing Cooperative Movement in India as an effective measure to improve the conditions of agriculturists and deputed Sir Frederick Nicholson to study the Cooperative Movement in foreign countries, who in 1895 reported that the future of rural credit lies with those who being of the people, live among the people and yet by their intelligence, prescience and energy are above the people. <sup>24/</sup>

Following the inauguration of the Cooperative Movement in 1904, Credit Societies were encouraged to advance long-term loans along with short-term loans subject to certain limitations. It was, however, soon realised that this type of mixed business had landed the societies into difficulties on account of the special features of long-term loans as given below: <sup>25/</sup>

(1) The long-term loans are to be repaid over a period of more than five years. The deposits of cooperative societies and banks are for short periods. Thus, if the overdue instalments are accumulated for a number of years, the resources of the cooperative banks would be locked up. It is, therefore, unsound to utilize the short-term funds of such institutions for long-term needs. The period of repayment of such loans should necessarily be linked up with the period of borrowings of the bank.

(2) Long-term loans are advanced out of the funds raised by way of floating debentures for which Sinking Fund is required to be created unlike short or medium-term loans.

(3) Long-term loans are advanced against the landed property. It is quite essential that the ownership rights and title to the lands are proved by verification of the records of rights, etc. Such technical job has to be carried through technically trained staff.

(4) The inquiry into the processing of loan application viz. valuation of lands, arriving at the repaying capacity of the borrower, feasibility of the scheme of land improvement, etc. is a specialised job and has, therefore, to be entrusted to specially trained officers.

---

<sup>23/</sup> Report of the Committee on Taccavi Loans and Cooperative Credit, Ministry of Community Development and Cooperation, Government of India, 1962, p. 5.

<sup>24/</sup> F.A. Nicholson, Report regarding the possibility of introducing Land and Agricultural Banks into the Madras Presidency, Vol. I, 1895, p. 667.

<sup>25/</sup> The Bombay State Cooperative Land Mortgage Bank, Souvenir, 1965, pp. 4 and 5.

(5) The execution of important documents such as mortgage deeds, rent notes, etc. and their maintenance together with title deeds of lands, etc. cannot be entrusted to the secretary of the ordinary society.

(6) When defaults occur in the repayment of mortgage loans, the assets of the financing agency are frozen and the obtaining and execution of decrees for the recovery of overdue loans becomes an extremely difficult operation.

The above features of long-term loans being of specialised and technical nature, the long-term loans should necessarily be channelised through a separate agency. The question was examined at high level during the thirties. The Royal Commission on Agriculture states that a distinction between a long and short-term credit is made in the Acts which regulate the grant of loans by the State and they hoped that, in future, the cooperative movement will be able to separate the two types into land mortgage banks and village society business. <sup>26/</sup> The Bihar and Orissa Banking Enquiry Committee (1931) later reiterated this view by observing that "It would be most unsafe for the existing Central Cooperative Banks to take up this business since it would mean locking up a large part of their working capital in a few transactions. Consequently, if the work is to be done at all, it will have to be done by a new agency. The raising of necessary funds and the management of the sinking fund could be adequately done by a central agency for the whole province, while the detailed work of examining applications for loans, testing the security offered and enforcing repayments require local knowledge." <sup>27/</sup> The Assam Banking Committee thought that "there would be a danger of mixing up long-term loans from the land mortgage banks with short-term loans from societies." <sup>28/</sup>

At the same time there was a school of thought in favour of mixed banking, which was of the opinion that by channelising long as well as short-term loans through one and the same institution, the management expenses are much reduced than those in a specialised one. The sponsors of the mixed banking further advocated that in mixed banking, a bank can work economically with a smaller area of operation, and that smaller the area of operation, the closer the supervision over utilization and recovery of loan instalments. Apparently, this system seemed to be more useful and economical. With this principle some State Cooperative Banks started financing long-term loans through the district central and primary land mortgage banks with a separate department at the apex level. Similarly, wherever it was not possible to open separate primary land mortgage banks, they started advancing of such loans through district central cooperative banks only. The State Co-operative Banks were empowered to float debentures for collecting funds for the

---

<sup>26/</sup> The Royal Commission on Agriculture, 1928, p. 463.

<sup>27/</sup> The Bihar and Orissa Banking Enquiry Committee, 1939, p.

<sup>28/</sup> The Assam Banking Committee, Report

purpose. It was, however, later on noticed that all the technicalities which are required to be observed while advancing long-term loans, were not seen. This was because they had no staff specially trained for the purpose. At times, they were tempted to advance long-term loans out of their surplus funds of short-term deposits. This endangered them owing to the locking up of their short-term resources as the overdues percentage rose too high. On account of the fact that many of the technical requirements were not seen, a huge amount of the loans was defaulted and frozen and was, therefore, required to be written off. The banks suffered heavy losses in these transactions. The very principle that mixed banking can work more efficiently and economically, proved a failure. 29/

The Bombay Provincial Cooperative Conference of 1914 was of the view that "immediate redemption of old debts on a large scale is impracticable. The need for starting separate land mortgage banks has become increasingly obvious in view of the special difficulties which confronted the agencies mainly handling short-term credit but simultaneously interested in making long-term loans." 30/ The initiative to start the first land mortgage bank was, however, taken by Punjab State and the first land mortgage bank was started at Jhang in 1920.

At the same time discussions were being held to organize an independent channel to advance long-term loans in Bombay State. The Gujarat Divisional Cooperative Conference held in 1923 also favoured the proposal. A Committee was, therefore, appointed under the Chairmanship of Diwan Bahadur Malji to examine this question, which recommended formation of a separate agency for long-term loans. The Registrars' Conference held in 1926 passed with the concurrence of non-officials, comprehensive resolution for organisation of land mortgage banks on cooperative principles. After the conference, Sir J.A.Madan, I.C.S., the then Registrar of Cooperative Societies, Bombay State submitted a scheme to Government for organisation of land mortgage banks and the same was approved in 1926 by Government and accordingly, three primary land mortgage banks were organised namely at Pachora, Broach and Dharwar in 1929 and the Bombay Provincial Cooperative Bank undertook financing them out of the funds raised by way of floating debentures guaranteed by Government. 31/ The primary land mortgage banks were organised as per the recommendations of the Royal Commission on Agriculture 32/ and the Central Banking Enquiry Committee as follows: 33/

(1) The Land Mortgage Banks should be organized on cooperative principles with a district as the area of operation.

---

29/ The Bombay State Cooperative Land Mortgage Bank, Ltd., Souvenir, 1965, p. 6.

30/ The Bombay Provincial Cooperative Conference, 1914.

31/ The Report of the Land Mortgage Committee, Bombay, 1934, p. 2.

32/ The Royal Commission on Agriculture, 1928, p. 462.

33/ The Central Banking Enquiry Committee, 1931, Vol. I, pp. 156 and 157.

(2) The loans shall be advanced for the purposes of  
 (a) redemption of old debt, (b) land improvements and  
 (c) purchase of land.

(3) Loans shall be granted by land mortgage banks upto an amount of 50% of the value of the land offered as security

(4) Only such loans should be granted as would be beneficial to the borrowers.

(5) The period of repayment of loans should be co-related to the repaying capacity and the purpose for which the loan is given.

(6) The maximum period should not be more than 20 years

(7) Debentures should be issued by the Central Land Mortgage Banks to be guaranteed by Government for both principal and interest.

(8) Government should provide management subsidy in the initial stages. Concessions viz. exemption from payment of stamp duty and registration fees should be granted.

(9) Powers for the closures and sale of lands without the intervention of the Court should be given to the primary banks.

(10) State Cooperative Banks should work as Central Land Mortgage Banks till separate Central Land Mortgage Banks are organised.

According to the then pattern in the Bombay State, the primary land mortgage banks were functioning without any profit margin in the rate of interest to be charged to the ultimate borrowers. The main source of their income was entrance fees, inquiry fees and interest earned on investments other than loan. They were allowed grants for meeting their deficits from the Bombay Provincial Cooperative Bank. The Primaries could, therefore, never realise the necessity of strengthening their business. The goal of reducing the indebtedness of agriculturists, could not, therefore, be reached. <sup>34/</sup> At the same time agricultural depression set in, which had the effect of increasing the burden of agricultural indebtedness very considerably. The question was, therefore, discussed in the Round Table Conference in 1933 and a Committee was appointed by the Government to examine the question of development of land mortgage banking in the State for relief of agricultural indebtedness. The Committee under the Chairmanship of Shri. K.L.Punjabi, Registrar, Cooperative Societies, Bombay State, observed that the burden of debt was becoming heavier due to high rate of interest on the one hand and low repaying capacity on the other hand. The Committee noticed that the Bombay Provincial Cooperative Bank would not be in a position to make available sufficient advances and unless and until such a machinery is established through which arrangements could be made to meet the long-term loans to be repaid in sizeable yearly instalments, the agriculturists would not be relieved

from their indebtedness. <sup>35/</sup> The Committee made several recommendations amongst which the formation of primary land mortgage banks in all compact areas of the Province with stable agricultural conditions and the establishment of a central land mortgage bank to finance the primary banks from the funds to be raised mainly by issue of long-term debentures guaranteed by Government both in respect of principal and interest were the most important. A number of primary land mortgage banks with a number of modifications in their constitution, management, etc. were formed and the Provincial Cooperative Land Mortgage Bank was registered on 7-12-1935.

The Madras and Mysore States Cooperative Land Development Banks were registered in 1929, followed by the Bombay and Orissa States Cooperative Land Development Banks in the thirties. During the forties no other State Cooperative Banks were organized due to decline in the land mortgage banking. In the fifties, the Gujarat, Kerala, Assam, Rajasthan, Punjab and West Bengal States' Cooperative Land Development Banks were registered, followed by the Bihar, Uttar Pradesh, Pondichery, Himachal Pradesh, Madhya Pradesh, Andhra Pradesh and Jammu and Kashmir States' Cooperative Land Development Banks during 1960 to 1962. At present, seventeen State Cooperative Land Development Banks are functioning in India. Table 1.1 reveals the progress made by the State Cooperative Land Development Banks since 1950-51.

The Owned Funds (Share Capital plus the Reserve Fund) of the State Cooperative Land Development Banks in India at the end of 1950-51 stood at Rs. 64.83 lakhs while the same at the end of 1965-66 stood at Rs. 1725.36 lakhs. The rise of Owned Funds was of the order of Rs. 1660.53 lakhs during the decade and a half. Debentures in circulation at the end of 1950-51, floated by the State Cooperative Land Development Banks, which stood at Rs. 674.76 lakhs increased to Rs. 13924.74 lakhs at the end of 1965-66. Fresh advances made in 1950-51 were only of the order of Rs. 132.92 lakhs while the same made in 1965-66 stood at Rs. 5582.12 lakhs, indicating a remarkable progress in respect of fresh advances of the State Cooperative Land Development Banks after one decade and a half. The outstanding loans of these Banks with the Primary Land Development Banks and the individuals, which stood at Rs. 597.77 lakhs at the end of 1950-51, increased to Rs. 16320.54 lakhs at the end of 1965-66. The rise in outstanding loans was of the order of Rs. 15,722.77 lakhs during the said period.

#### 1.5 Progress of Long-term Finance for New Wells in India

The long-term loans advanced by the State Cooperative Land Development Banks for various purposes during the three years from 1963-64 to 1965-66 could be viewed from Table 1.2.

It would be seen that 93 per cent of the loans advanced during 1965-66 were for productive purposes. Loans advanced for sinking of new wells and repairs to old wells were about one-third of the total loans advanced. They increased from Rs. 842.25 lakhs in 1963-64 to Rs. 1773.59 lakhs in 1965-66 i.e. more than doubled. The rise in the total loans advanced was of the order of Rs. 2477.26 lakhs in 1965-66 over those of 1963-64. Loans advanced for redemption of old debts were about 6.52 percent of the total loans in 1965-66 as against 12.13 percent in the preceding year.

<sup>35/</sup> Report of the Land Mortgage Committee, published by the Standing Committee of the Bombay Presidency Co-operative Conference, 1934, p. 13.

**Table 1.1:** Showing the progress of States Cooperative Land Development Banks in respect of Owned Funds, Fresh Advances, Recoveries, Outstandings and Overdues.

(Figures in Rs. lakhs)

Particulars	1950-51	1960-61	1965-66
No. of State Cooperative Land Development Banks	4	14	17
Owned Funds (Share Capital + Reserve Fund)	Rs. 64.83	497.88	1725.36
Debentures in Circulation at the end of the year	Rs. 674.76	3652.90	13924.74
Fresh advances during the year	Rs. 132.92	1162.09	5582.12
Recoveries during the year	Rs. 45.69	303.23	1601.62
Outstandings at the end of the year	Rs. 597.77	3661.22	16320.54
Overdues	Rs. 0.88	121.92	334.81

Source: Cooperative Maharashtra, 1963, Land Development Banking Number. Third Five Year Plan Resources of the Movement by G.S.Joshi, Principal, National Cooperative College and Research Centre, Poona. Figures for 1965-66 were supplied by the Bombay State Coop. Land Mortgage Bank.

**Table 1.2:** Showing purpose-wise classification of loans advanced by the State Cooperative Land Development Banks during 1963-64 to 1965-66  
(Figures in brackets indicate percentages to the total loans) (Rs. in lakhs)

Year	No. of State Cooperative Land Development Banks	Construction of new wells (including repairs to old wells) Rs.	Purchase of Agri. machinery, Tractors, pump-sets, oil engines etc. Rs.	Land Improvement purposes Rs.	Debt redemption Rs.	Purchase of land and tenancy rights Rs.	Total Rs.
1963-64	17	842.25 (30.32)	829.94 (29.87)	786.19 (28.30)	302.22 (10.88)	17.55 (0.63)	2778.15 (100.00)
1964-65	17	1155.34 (30.67)	1130.81 (30.01)	999.00 (26.52)	457.14 (12.13)	25.31 (0.67)	3767.60 (100.00)
1965-66	17	1773.59 (33.75)	1579.33 (30.05)	1532.81 (29.17)	342.48 (6.52)	27.20 (0.51)	5255.41 (100.00)

Source: Supplied by the All-India Central Land Development Banks' Cooperative Union, Ltd., Hyderabad, Andhra Pradesh.



The total loans advanced by the State Cooperative Land Development Banks and of which loans advanced for sinking of new wells and repairs to old wells \*/ during the years 1963-64, 1964-65 and 1965-66 are given in Table 1.3.

The total loans advanced by the Bombay (Maharashtra) State Cooperative Land Development Bank in 1963-64 and 1964-65 were more than one-third of the total loans advanced by all the State Cooperative Land Development Banks in India; while in 1965-66, they were less than one-third. The Bombay State and the Andhra Pradesh Cooperative Land Development Banks alone constituted about 50 per cent of the total loans in 1965-66. The Andhra Pradesh Central Cooperative Land Development Bank made a remarkable progress in advancing loans to the tune of Rs. 1,122 lakhs in 1965-66 as against Rs. 446 lakhs in the preceding year. The Uttar Pradesh Central Cooperative Land Development Bank also made a good progress whose advances increased to Rs. 461 lakhs in 1965-66 from Rs. 126 lakhs in 1965-65. The Gujarat State Cooperative Land Development Bank which was second to the Bombay State Cooperative Land Development Bank in respect of total advances in 1963-64 and 1964-65 stood third in 1965-66.

About 50 per cent of the total loans advanced by the Bombay State Cooperative Land Development Bank were for the sinking of new wells and repairs to old wells. Jammu and Kashmir State Cooperative Land Development Bank advanced loans for the sinking of new wells and repairs to old wells to the extent of 84 per cent of the total loans advanced. The Uttar Pradesh Cooperative Land Development Bank also made 77 per cent loans for wells in 1965-66.

Out of the total loans of Rs. 2,778 lakhs advanced by the State Cooperative Land Development Banks in 1963-64, Rs. 842 lakhs i.e. 30 per cent were for wells, and in 1965-66 out of Rs. 5,255 lakhs, Rs. 1,774 lakhs were advanced for wells i.e. one-third of the total advances.

#### 1.6 Progress of Long-Term Finance in Maharashtra State

In spite of the rise in the number of primary land mortgage banks in the State, which stood at 13 as on 30-6-1939, they could not meet the long-term requirements of agriculturists substantially. During the period of 10 years ending 1939, loans to the extent of Rs. 21.34 lakhs could only be advanced. These loans were advanced exclusively for redemption of debts. In this behalf, the Reserve Bank of India in its statutory report of 1937 observed: "Our investigations into the working of the land mortgage banks in India reveal that in liquidation of old debts to which they are, at present, devoting their almost exclusive attention, they are running the risk of falling into the same error which was committed by Cooperative Credit Societies in the past, and which is, to a large extent, responsible for the present plight of the movement, and that there is a danger of land mortgage banks finding themselves ultimately in the same position as some of the banks with their assets frozen. A cultivator who is habitually running into debt

---

\*/ The figures of loans advanced for sinking of new wells and for repairs to old wells were not separately available as they were classified under one head being identical purposes.

**Table 1.3:** Showing statewise and yearwise total loans advanced and of which loans advanced for sinking of new wells and repairs to old wells during 1963-64 to 1965-66

(Rs. in lakhs)

Name of the State Cooperative Land Development Bank	1963-64			1964-65			1965-66		
	1	2	3	1	2	3	1	2	3
Bombay *	984.44	474.61	48.21	1349.40	716.48	53.10	1520.36	766.01	50.38
Gujarat	559.70	219.89	39.29	711.15	215.84	30.35	851.38	235.14	27.62
Andhra Pradesh	403.16	83.50	20.71	445.73	73.16	16.41	1122.02	182.39	16.26
Madras	325.12	-	-	359.82	-	-	306.66	-	-
Mysore	91.20	9.94	10.90	266.40	18.16	6.82	213.95	25.04	11.70
Punjab	86.52	4.91	5.67	102.84	12.23	11.89	163.78	33.38	20.38
Madhya Pradesh	84.73	18.58	21.93	150.07	33.23	22.14	183.93	50.57	27.49
Uttar Pradesh	73.32	22.75	31.03	125.93	34.51	27.40	596.67	461.34	77.32
Kerala	57.57	-	-	80.80	-	-	90.84	-	-
Orissa	51.40	-	-	67.88	-	-	69.55	-	-
West Bengal	30.83	0.08	0.26	46.11	0.10	0.22	50.02	0.12	0.24
Rajasthan	10.01	3.49	34.87	22.09	5.28	23.90	37.89	16.08	42.44
Bihar	9.88	-	-	16.83	-	-	27.53	0.30	1.09
Jammu & Kashmir	5.23	4.49	85.85	7.68	6.35	82.68	3.82	3.22	84.29
Himachal Pradesh	3.68	-	-	5.36	-	-	8.63	-	-
Assam	1.09	-	-	1.50	-	-	2.54	-	-
Pondicherry	0.27	-	-	8.01	-	-	5.84	-	-
<b>Total of all Banks</b>	<b>2778.15</b>	<b>842.24</b>	<b>30.32</b>	<b>3767.60</b>	<b>1115.34</b>	<b>29.60</b>	<b>5255.41</b>	<b>1773.59</b>	<b>33.75</b>

Source: Supplied by the All-India Central Land Development Banks' Union, Ltd., Hyderabad, Andhra Pradesh.

\* Maharashtra State Cooperative Land Development Bank.

- 1 = Total loans advanced Rs.
- 2 = Of which for sinking of new wells and repairs to old wells Rs.
- 3 = Percent of total loans

cannot be saved merely by the grant of longer instalments with lower rates of interest. He must be trained and disciplined in the use of money and if he is living on a deficit economy, attempts must be made to increase his margin. Taking up debtors without any previous knowledge and looking only to the security offered by them, can hardly be said to have any cooperative element in it. The security of land, as has been demonstrated more than once, proves more an embarrassment than an asset when it has to be realised on a large-scale so that even a land mortgage bank must look more to the repaying capacity of the debtor than to the mere value of his assets." 36/

The process of debt relief through land mortgage banks was deemed to be inadequate as the agricultural depression which set in the early 'thirties' showed no signs of dying out. The Bombay Agricultural Debtors Relief Act was, therefore, enacted for providing relief to agriculturists who were carrying heavy debts. The Act provided compulsory scaling down and adjustment of debts of agriculturists, who were not free to alienate or mortgage their lands or crops until the adjusted debts were cleared. The immediate effect of this legislation was the considerable curtailment of the land mortgage banks' business which till 1958 consisted mainly of grant of loans for redemption of old debts. In 1942 the prices of all the commodities witnessed a sharp rise. With the increase in the prices of agricultural produce, there was also an increase in the value of lands and hence by sale of a portion of their lands, they could repay their entire debts. This led to the decline in the volume of business of land mortgage banks. The other reason which adversely affected the working of the land mortgage banks was that the Government started providing long-term loans for the purposes of land improvement in accordance with the 'Grow More Food' Campaign.

Ideas were taking shape to consider the undertaking of financing for land improvement purposes. The State Cooperative Land Mortgage Bank, therefore, appointed Land Improvement Loans Sub-Committee, on the recommendations of which the Bank submitted the scheme to Government to enable it to grant loans for land improvement purposes. While approving the scheme, Government also agreed to subsidise the Bank, for taking over financing of land improvement schemes, to the extent of the difference between the economic lending rate of the Bank and the rate of interest of Government on such loans. Under this scheme the Bank started advancing loans at 3-1/4 percent for wells and 5-1/2 percent for bunding and purchase of agricultural machinery.

The decade 1956-57 to 1965-66 is momentous in the history of the Land Mortgage Banking in the State as it witnessed a very bold step taken by the Bank in undertaking financing Taccavi loans. The Committee of Direction, appointed by the Reserve Bank of India to undertake Rural Credit Survey observed: "In practice, Taccavi is apt to be little else than the ill-performed disbursement of inadequate moneys by an ill-suited agency. It would not be far from truth to say that the record of Taccavi is the record of inadequacies. These may be considered in their different

---

36/ The Reserve Bank of India, Statutory Report of 1937, p. 14.

aspects which are (i) inadequacy of amount, inequality of distributions and inappropriateness of basis of security, (ii) inconvenience of timings, incidental delays and impositions of various kinds on the borrower and (iii) inefficiency of supervision and incompleteness of coordination." 37/ By this time, the Bank had already laid emphasis on advancing of loans for productive purposes. During 1957-58, about 65% of the total loans were advanced for productive purposes. Simultaneously Government was also thinking of channelling Taccavi finance through the Land Mortgage Banks. Government had sanctioned a scheme of construction of 35,000 new wells and 28,000 old wells during the remaining period of 3-1/2 years of the 2nd Five Year Plan and for this purpose allotted a target of Rs. 112.99 lakhs for undertaking construction of 1979 new wells and repairs to about 4,000 old wells during 1957-58. The response was so encouraging that the Government decided to continue and to implement the scheme through the Bombay State Cooperative Land Mortgage Bank. The scheme was approved by the Government of Bombay under their resolution No. WEL,1058-E dated 20-11-1958.

The salient features of the scheme were as under:

"The maximum limits which the Land Mortgage Banks may advance loans will be Rs. 2500/- (subsequently raised to Rs. 4000/-) in the case of new wells. The loan will be repayable in 10 annual instalments at the rate of interest of 4-1/2 percent. A subsidy at the rate of 25 percent of the total cost of the well subject to a maximum of Rs. 500/- per well and in the case of Backward Class cultivators 30 percent of the cost (subject to a maximum of Rs. 600/- per well) will be payable by way of remission on the usual condition that the well should be constructed within two working seasons from the payment of first instalment of the loan and that the borrower should grow food crops in at least 2/3 of the area under command of the well water for a period of three consecutive years. The lands offered as security shall be valued at 180 times of the assessment of the land. In addition to the valuation arrived at as stated above, full cost of the improvement should be added to such valuation if the assessment of the land offered as security is less than Rs. 1.50 per acre and half the cost of improvement should be added if the assessment is more than Rs.1.50 per acre. The amount of loan sanctioned shall not exceed fifty percent of the total valuation arrived at as above. The scheme was kept under the direct control of the Director of Agriculture, Government agreed to subsidise the Bank to the extent of the difference between the economic lending rate of the Bank i.e. 7-1/4 percent and the concessional lending rate of Government i.e. 4-1/2 percent."

By implementing this scheme, the Bank could disburse loans for sinking of new wells to the extent of about Rs. one crore during the Cooperative Year 1959-60.

With a view to implement the above scheme, Government also sanctioned the scheme of grant of subsidy to uneconomic branches of Land Mortgage Banks for expansion of agricultural credit. The scheme contemplated opening of new branches by Primary Land Mortgage Banks and also the Apex Land Mortgage Bank, under which Government proposed to sanction subsidy equal to 50 percent of the expenditure actually incurred on staff, establishment, and other expenses subject to a maximum of Rs. 3000/- per year to each branch for a period of three years.

With a view to achieving expeditious disposal of loan applications, the Primaries were delegated with powers of sanction of loans to agriculturists upto a financial limit of Rs. 4000/- in each case.

One of the chief drawbacks which accounted for the slow growth of the land mortgage banking movement in the State was the considerable delay in sanctioning loans. That was mainly because of the considerable time required for examining the titles of intending borrowers to the lands offered as security. Long-term loans are now required mainly for undertaking development works and it is essential that these loans are disbursed in time. If, therefore, the land mortgage banks, now called as land development banks, to emphasise their new creative role, are to play their role effectively as suppliers of long-term credit to the farmers, it is necessary both to eliminate procedural delay in their working and also to give maximum security for the loans advanced by them. With a view to achieving these objects, a separate chapter on land mortgage banks had been introduced in the Maharashtra Cooperative Societies Act, 1960. The specific provisions in the Act constitute an important landmark in the growth of land mortgage banking in the State. The old Bombay Cooperative Societies Act, 1925 did not contain any specific provisions in regard to the working of land mortgage banks except Section 59 B for recovery of defaulted instalments of land mortgage banks. The other features of their working were governed by their byelaws and the provisions in the Act relating to Cooperative Societies in general.

The Act has come into force from 26-1-1962. The Act made an important departure in the nomenclature of these banks by changing the name from land mortgage banks to land development banks. This emphasises the modern conception of their scope and activities and the role which they have to play in the development of the agricultural economy of the country as a whole. The land mortgage banks were started in the State with the main object of reducing the indebtedness of the agriculturists. Gradually, however, it was realized that they can play an important role in increasing agricultural production by granting loans for productive purposes. Such types of loans if, at all, they are to serve their purpose should be paid to the borrowers as and when required.

Now under the new Act the statutory inquiry (called Public Inquiry) provides for inviting objections from the parties interested in the lands which are proposed to be offered as security by the Public Inquiry Officer who has to conduct a summary inquiry into the objections if any, received to the loan and make an order in writing either upholding or rejecting the objections. The Rules further provide that if any interested party does not come forward with his objections before the Public Inquiry Officer on the fixed date, his claim if any on the land shall be postponed till after the loan granted to the borrower is paid in full. The Act has also prescribed a time limit of four months within which the loan applications should be disposed of.

The second important reason which used to cause delay in disbursement of loans was the execution of mortgage deed in the presence of the registering officer after which only loans were disbursed. Now, according to the new provisions of the Act, it is not necessary to register the mortgage

deed executed in favour of the land development bank by the borrowers. It is sufficient if a copy of the mortgage deed executed is sent to the registering officer for record.

The interests of the land development banks have also been protected in as much as Section 120 of the Act provides that a mortgage executed in favour of a land development bank, shall have priority over the claim of the Government in respect of any loan granted after the mortgage. Section 48 of the new Act has also been amended as to provide priority to the previous loans granted by the land development banks over the loans given by cooperative societies for production of crops.

The new Act further includes provisions for facilitating speedy recovery of the dues of the land development banks, amongst which mention can be made of sale of the mortgage property without the intervention of the court.

Thus, while the provisions of sections 118 and 122 have helped to cut down substantially the delay involved in scrutinising titles, encumbrances, etc. and in registration of mortgages, the provisions of the remaining sections have offered sufficient inducements to land development banks to adopt holder lending policies.

In 1958, Government allowed the Bank to undertake the financing of taccavi loans for construction of wells and purchase of oil engines, on the basis of the formula for valuation of lands stated earlier. In 1962, Government revised the formula in the light of the steep rise in the commodity prices and the prices of lands, under their resolution No. WEL-1961/33485-(iv)-F. dated 24-11-1962. According to the revised formula, the lands are, at present, valued at 300 times the assessment subject to a minimum of Rs. 300/- per acre. The full cost of the proposed improvement is added to the valuation so arrived at and loan can be sanctioned to the extent of 50 percent of the total valuation.

In the meanwhile the question of complete transfer of the function of financing under Taccavi schemes to the Bank was under active consideration of the Government of Maharashtra. Looking to the achievements of the Bank in advancing loans for wells and oil engines to the extent of Rs. 1.70 crores in 8721 cases during 1959-60 and Rs. 2.05 crores in 10,026 cases during 1960-61, the Government thought, the Bank (and its auxiliaries - primary land development banks) was the most suitable agency for channelizing Taccavi loans. Accordingly, Government accepted land development banks as the institutional agency for advancing long-term loans for productive purposes of construction of new wells, purchase of oil engines, etc. under Government Resolution No. WEL-1062/F dated 28-12-1962. While its other salient features remained the same as those of the previous scheme which was undertaken by the Bank in 1959; this scheme contained the detailed procedure for speedy disposal of loan applications as laid down in the Maharashtra Cooperative Societies Act, 1960. After introducing this scheme, Government of Maharashtra has completely stopped issuing Taccavi loans for land improvement purposes and are utilizing the land development banking organization as the sole agency for long-term credit with a great deal of success. The Bank could further attract sizeable business on account of the outstanding advantages of the scheme viz. concessional rate of interest at 4-1/2

percent, 25 percent subsidy in the loan amount itself, easy instalments, and relatively quick payment of loans. The Government of Maharashtra are subsidising the Bank to the extent of 3-1/2 percent being the difference between the concessional lending rate of 4-1/2 percent and the normal economic lending rate of the Bank. With these services, it has been possible for the Bank to make good progress in respect of advancing long-term loans in the State in recent years as could be seen from Table 1.4.

The paid-up share capital of the Apex Mortgage Bank has substantially increased from Rs. 50.80 lakhs in 1960-61 to Rs. 372.30 lakhs in 1965-66 i.e. more than seven times during the six years. There has also been remarkable increase in the loans advanced. Loans advanced to Primary Land Development Banks during 1965-66 stood at Rs.1520.36 lakhs as against Rs. 214.61 in 1960-61, showing the progress by more than seven times over a period of six years. Debentures floated to raise funds to meet the requirements of loaning programmes have also considerably increased i.e. from Rs. 536.31 lakhs in 1960-61 to Rs. 4996.12 lakhs (debentures in circulation) at the end of 1965-66. The percentage of recovery to demand (for recovery) from primary land mortgage banks shows an improving tendency till 1964-65 but in 1965-66, it has declined. There has also been a spectacular rise in the net profit of the Bank. Net profit that was Rs. 0.52 lakh in 1960-61 has gone upto Rs. 23.53 lakhs in 1965-66. Loans outstanding at the end of 1960-61, at Rs. 578.06 lakhs have risen to Rs. 4605.84 lakhs at the close of 1965-66. On the whole, the Apex Land Mortgage Bank's progress during the six years from 1960-61 onwards has been quite remarkable.

#### 1.7 Progress of Long-Term Finance for New Wells in Maharashtra State

Table 1.5 gives the purposewise classification of loans advanced by the Maharashtra State Cooperative Land Development Bank to the Primary Land Development Banks during the six years from 1960-61 to 1965-66.

It will be seen that the Maharashtra State Cooperative Land Development Bank has discontinued to advance loans for redemption of old debts since 1964-65; and those advanced for this purpose during 1960-61 to 1963-64 were negligible when compared to the total loan advances. The Bank has been advancing loans purely for productive purposes. The amount of loan advanced to the Primary Land Development Banks for sinking of new wells in 1965-66 stood at Rs.705.30 lakhs as against Rs. 102.80 lakhs in 1960-61, i.e. the loan advances for this purpose have increased to the extent of seven times in 1965-66 of those in 1960-61. The same case is in respect of oil engines and electric motors and there has also been substantial increase in respect of loans advanced for repairs to old wells, purchase of tractors, land improvement and purchase of lands.

Of the total advances made by the Maharashtra State Cooperative Land Development Bank to the primary land development banks in the state during the period of 6 years from 1960-61 to 1965-66, loans advanced for sinking of new wells accounted for 48.56 percent, and those for purchase of oil engines and electric motors constitute 39.52 percent, together they form 88.08 percent; while loans advanced for repairs to the old wells and for land improvement were 5 percent and 4.80 percent respectively. It is evident that

**Table 1.4:** Showing progress of the Maharashtra State Cooperative Land Development Bank in paid-up share capital, loans advanced, debentures floated, loans outstanding, total demand and recovery and net profit during 1960-61 to 1965-66

(Rs. in lakhs)

Year	Paid-up share capital Rs.	Loans advanced during the year Rs.	Loans outstanding at the end of the year Rs.	Debentures floated during the year Rs.	Debentures in circulation at the end of the year Rs.	Total demand for recovery Rs.	Total recovery Rs.	Percentage of demand to recovery	Net Profit Rs.
1960-61	50.80	214.61	578.06	250.00	536.31	81.96	58.15	70.95	0.52
1961-62	75.08	300.85	821.59	200.00	736.31	107.41	75.63	70.41	2.37
1962-63	116.73	865.10	1580.44	605.00	1365.15	162.07	131.70	81.26	4.59
1963-64	119.90	984.44	2395.97	1044.50	2382.55	271.77	221.88	81.44	12.08
1964-65	293.96	1349.40	3454.42	781.50	3160.81	421.99	368.98	87.44	23.80
1965-66	372.30	1520.36	4605.84	1848.00	4996.12	605.87	480.85	79.70	23.53

Source: Annual Reports of the Bombay (Maharashtra) State Cooperative Land Mortgage Bank.



Table 1.5: Showing purposewise classification of loans advanced by the Maharashtra State Cooperative Land Development Bank to Primary Cooperative Land Development Banks during 1960-61 to 1965-66

(Amounts in Rs. lakhs)

Year	Sinking of new wells Rs.	Repairs to old wells Rs.	Purchase of oil engines and electric motors Rs.	Purchase of tractors Rs.	Land Improvement Rs.	Purchase of land Rs.	Redemption of old debts Rs.	Total Rs.
1960-61	102.80	13.25	88.66	-	4.28	1.05	4.62	214.61
1961-62	175.63	8.31	104.61	-	9.51	0.90	1.89	300.85
1962-63	481.73	64.88	282.63	-	35.26	0.19	0.41	865.10
1963-64	423.98	50.63	442.48	5.06	61.98	0.29	0.02	984.44
1964-65	652.28	64.20	544.00	38.00	49.00	1.92	-	1349.40
1965-66	705.30	60.71	606.53	51.56	91.00	5.26	-	1520.36
Total	2541.72	261.98	2068.86	94.62	251.03	9.61	6.94	5234.76
Percent of the total	48.56	5.00	39.52	1.81	4.80	0.18	0.13	100.00

Source: Annual Reports of the Maharashtra State Cooperative Land Development Bank.

the loan advanced for sinking of new wells forms the major portion of the total loans advanced in the Maharashtra State.

Table 1.6 gives the total loans advanced by the primary cooperative land development banks in the Maharashtra State and of which loans advanced for sinking of new wells during the year 1966-67.

Table 1.6: Showing Primary Bank-wise total loans and of which loans for sinking of new wells in the Maharashtra State for the year 1966-67

(Rupees in lakhs)

Sr. No.	Name of the Primary Land Development Bank	Total loans advanced Rs.	Of which for sinking of new wells Rs.	Percent of total loans
1	Aurangabad	123.89	76.10	61.43
2	Ahmednagar	121.53	74.76	61.53
3	Sangli	100.59	39.59	39.36
4	Poona	98.23	62.04	63.16
5	Nasik	90.00	53.45	59.45
6	Sholapur	88.34	51.71	58.54
7	Jalgaon	86.89	50.01	57.55
8	Kolhapur	83.44	21.33	25.56
9	Satara	77.73	26.55	34.16
10	Dhulia	71.85	33.68	46.88
11	Akola	70.31	47.65	67.77
12	Amraoti	66.46	40.16	60.43
13	Yeotmal	52.72	32.66	61.95
14	Bhir	51.23	23.94	46.73
15	Nagpur	49.18	31.02	63.07
16	Wardha	33.25	20.35	61.20
17	Udgir*	31.63	22.71	71.80
18	Osmanabad	31.34	16.87	53.83
19	Parbhani	30.78	16.43	53.38
20	Chanda	24.05	18.03	74.97
21	Buldhana	21.64	8.22	37.99
22	Bhandara	20.58	12.81	62.24
23	Nanded	19.91	8.24	41.39
24	Kolaba	14.34	3.91	27.27
25	Thana	4.93	2.58	52.33
26	Ratnagiri	1.86	0.34	18.28
Total of all Banks		1466.70	795.16	54.21

Source: Supplied by the Maharashtra State Cooperative Land Development Bank, Bombay.

\* Udgir town is in the Osmanabad District.

The Aurangabad District Cooperative Land Development Bank advanced the largest quantum of loans i.e. Rs. 124 lakhs in 1966-67, closely followed by the Ahmednagar District Cooperative Land Development Bank i.e. Rs. 122 lakhs; the lowest quantum of loans was advanced by the Ratnagiri District Cooperative Land Development Bank i.e. Rs. 1.86 lakhs.

Out of the total loans advanced by the Aurangabad and the Ahmednagar District Cooperative Land Development Banks in 1966-67, loans advanced for sinking of new wells were of the order of Rs. 76 lakhs and 75 lakhs i.e. 61.43 percent and 61.53 percent respectively.

Out of 26 Primary Land Development Banks, 17 advanced loans for sinking of new wells more than 50 percent of their total loans advanced in 1966-67.

Out of the total loans of Rs. 1466.70 lakhs in 1966-67, an amount of Rs. 795.16 lakhs was advanced for sinking of new wells, working out to 54.21 percent.

### 1.8 Object of Present Study

The land mortgage banks, as they were then called, came into existence for fulfilling a social purpose. Their main objective from the very beginning was to promote the development of agriculture and, thus, bring about an increase in agricultural production.

The loaning operation pursued by the banks over a period of years and other favourable circumstances made a pronounced impact on the indebtedness of the agriculturists and they were gradually being freed from the burden of debts. After this initial hurdle was, thus, crossed, the land mortgage banks, now, called land development banks, have now addressed themselves to their real objective viz. development of agriculture and increase in agricultural production. The loans granted by them are now more and more for productive purposes such as sinking of wells, installation of pump-sets for lifting of water, purchase of tractors and other allied agricultural implement bunding, construction of farm houses, etc. The percentage of productive loans is as high as 98% in respect of some of the states. 38/

Land Development Banks are, thus, now playing a very significant role in the agricultural economy of the country by enabling the agriculturists to undertake capital investment on the land for increasing its productivity in the context of the present national food crisis. Because of this role which the banks are fulfilling, they are receiving great encouragement and substantial support from the State and Central Governments, Planning Commission, Reserve Bank of India and various institutional agencies.

In this context, it would be instructive to undertake evaluation of the loans which are being granted by them. With this objective in view, a problem on the "Utilization of long-term finance for new wells made by the Ahmednagar

---

<sup>38</sup> H.H.Trivedi, "Long-term Cooperative Credit and Higher Agricultural Production", the Journal of the All-India Central Land Mortgage Banks Cooperative Union, June, 1965, p. 8.

District Cooperative Land Development Bank, Ltd., Ahmednagar, in its famine liable Talukas, especially Ahmednagar, Parner, Shrigonda, Karjat and Jamkhed Talukas" is taken up for investigation for the thesis. The scope of inquiry is restricted only to the loans issued for new wells since the inception of the Bank in 1961 till June 1966, and only to the above referred to five famine liable talukas where there is an obvious need for wells to ensure the agricultural crops against the failure of monsoons.

The field of inquiry will cover the following main points:-

- (i) Adequacy of loans for new wells.
- (ii) Extent of utilization and misutilization of loans.
- (iii) The increased return to the cultivator from irrigation from additional income from farm products.
- (iv) Period of repayment of loan from the increased return.
- (v) Defects in the loaning policies and practices.

#### 1.9 Significance of Present Study

Evaluation of long-term finance for wells will serve important purposes. In the first place, it will be possible to have concrete facts and figures which will demonstrate the extent to which the land development banks are helping agricultural production. And, secondly, the loaning policies and practices being pursued, can be reviewed and made more effective in the light of observations. In view of these advantages, evaluation of loans granted, would prove to be very valuable. A project of such evaluation is, thus, valuable in the present circumstances.

## CHAPTER II

### GENERAL FEATURES OF AHMEDNAGAR DISTRICT.

This chapter is intended to provide a picture of the geographical and physical features of the Ahmednagar District, precarious character of the rainfall in the famine liable areas of the district, nature and effects of famines, famine relief works, necessity of wells in the famine liable areas and the progress of long-term finance for new wells in the district.

#### 2.1 Geographical Features of Ahmednagar District

Ahmednagar, lying between 18°20' and 19°59' north latitude and 73°40' and 75°43' east longitude, 1/ with an area of 6472 square miles, has 5.6% of the total area of the Maharashtra State, and with a population of 14,10,873 spread in 1332 villages. 2/ The district is very irregular in shape, somewhat resembling a slanting cross with a length of 120 and a breadth of 125 miles. It is bounded north-west and north by the Nasik District, on the north-east and east by the Aurangabad District, south-east by the Bhir District, on the south by the Sholapur district; on the south-west by the Poona District; and on the west by the Thana District.

For administrative purposes, the district is divided into four divisions, namely, (1) Ahmednagar Division in the south, which covers only Ahmednagar Taluka, (2) Parner Division in the south covering Parner, Shrigonda, Karjat and Jamkhed Talukas, (3) Rahuri Division in the centre and in the east covering four Talukas of Rahuri, Newasa, Shevgaon and Pathari and (4) Sangamner Division in the west and north, which covers Sangamner, Akola, Shrirampur and Kopergaon talukas.

#### 2.2 Physical Features of Ahmednagar District

The whole district lies on the elevated table land of the Deccan which has a general slope from the west to the east. The western subdivision of Akola, which abuts on the Sahyadris, is the highest part of the district and indeed of the Deccan, averaging 2500 feet above the sea-level. The plain of Shevgaon which lies to the extreme east of the district is not more than 1500 feet above the sea. 3/

The transition from the hilly to the open or Desh country is rapid; from the crest of the Sahyadris, where the rainfall varies from 150 to 200 inches, to the town of Akola where it averages 20 inches, is a distance of less than 20 miles. The open or Desh country of Ahmednagar presents an endless topographical variety. In the north,

---

1/ Bombay Gazetteer, Ahmednagar, Vol. XVII, 1884, p.1.

2/ Districts of Maharashtra, Ahmednagar, Government of Maharashtra, Bombay, p. 9 (1951 Census).

3/ Bombay Gazetteer, Ahmednagar, Vol. XVII, 1884, p.2.

centre and east are the fertile alluvial plains of Kopergaon, Rahuri, Newasa and Shevgaon lying in the valley of Godavari, in the extreme south are the alluvial but less fertile plains of Shrigonda and Karjat lying in the valley of Bhima. Between the Godavari and the Bhima valleys there is every combination of bare hill and cultivated dale specially in the talukas of Sangamner, Parner, Ahmednagar and Jamkhed.

The climate of the Ahmednagar District is on the whole extremely genial. The cold season lasts from November to February, followed by sultry oppressive weather till the middle of June. The south-west monsoon starts after the middle of June and the climate becomes temperate and pleasant. The south-west monsoon is considered to end early in October though violent local showers frequently fall till the end of October. In January or February slight rain is not unusual, but from February till May the sky as a rule is cloudless.

### 2.3 Precarious Character of Rainfall in Ahmednagar District

The most important factor affecting crops is the capricious rainfall. Though heavy near the Sahyadris in Akola and plentiful in the hilly parts of Sangamner, Rahuri, Shevgaon and Jamkhed, the rainfall is uncertain. In the plains the early rains are often scanty and the late rains capricious, so that droughts, especially in the Bhima basin, appear to form the rule and a good year the exception. 5/

The precariousness of rainfall in the Ahmednagar District is well brought out by Table 2.1 based on a study of rainfall from 1865 to 1938 by Mann.

Table No. 2.1: Variability of Rainfall, 1865-1935 at Ahmednagar.

(Rainfall in inches)

Item	
Mean annual rainfall	24.66
Standard deviation	8.84
Lowest rainfall in one year	8.46
Year of lowest rainfall	1876
Highest rainfall in one year	47.23
Year of highest rainfall	1916
Variability of the mean rainfall (%)	35.80

Source: Mann, Harold, H., Rainfall and Famine, pp. 3-5.

Ahmednagar is the most typical station in the famine belt of the Bombay Deccan. The district is one of extreme precariousness - highly prosperous in a good year but with very frequent years of failure or partial failure

of crops. It will be seen from the following figures supplied by Harold H. Mann, what such a failure means is well shown by the value of the produce from the Ahmednagar district, calculated to a constant price, in two successive years during the period of 70 years from 1869 to 1938. The first year (1917-18) was a good one: the following (1918-19) a year of famine. The value of the total production in each year was as follows:- <sup>6/</sup>

Production in 1917-18	...	Rs. 13,79,68,100
Production in 1918-19	...	Rs. 3,88,58,000

The value of the produce in the famine year was 3.55 times less than that in the good year. This is a remarkable difference, and shows what the precarious really means.

The capriciousness of rainfall in the Ahmednagar District, affecting crop yields is also clear from Table 2.2 also supplied by Mann, showing the correlation between different levels of yields and the percentage of years giving a certain level of yield over the period 1886 to 1938. There is an average return for the district of 57% of the produce of the best year of the period. Fifty-one percent of the years give this produce or more.

Table 2.2: Size of Crop Yields in Ahmednagar District 1886-1938

Extent of yield	No. of years	Percentage of years giving this yield
(a) 80% or over of the produce of the best year of the period	3	6
(b) 60-80% " "	22	41
(c) 40-60% " "	18	34
(d) 20-40% " "	7	13
(e) Under 20% " "	3	6

Source: Mann, Harold, H., Famine and Rainfall, 1955, p. 4

The tract more specially liable to severe famines is that where the annual rainfall averages between 15 to 60 inches. Of this, the areas with the annual rainfall of less than 30 inches or so, suffer the most because of the greater frequency of drought in them. <sup>7/</sup> Defining a dry year as one with 25 percent deficiency in annual rainfall and a year of severe drought as one with 40 percent deficiency, the Indian Irrigation Commission estimates for Ahmednagar, the frequency of dry years to be 11 in 50 and

<sup>6/</sup> Mann, Harold, H., Famine and Rainfall, 1955, p.4.

<sup>7/</sup> Statistical Atlas of India, 1895, p. 21.

that of severe droughts to be 6 in 50. <sup>8/</sup> These data underline the extremely insecure character of agriculture in the Ahmednagar District and strongly point to the need for irrigation to supplement the moisture from deficient or unseasonable rains: and so particularly in the famine liable talukas of Parner, Shrigonda, Karjat, Ahmednagar and Jamkhed where the average annual rainfall ranges from 22.2 to 26.66 inches, as could be seen from Table 2.3.

Table 2.3: Maximum, Minimum and Average Rainfall in the Ahmednagar District : Period 1931 to 1954

(Rainfall in inches)

Taluka	Year of maximum rainfall	Maximum rainfall	Year of minimum rainfall	Minimum rainfall	Average rainfall
Shevgaon	1934	45.80	1936	12.90	28.42
Newasa	1956	35.03	1941	14.12	26.98
Pathardi	1938	45.60	1936	12.63	26.84
Jamkhed	1938	37.79	1952	13.48	26.66
Ahmednagar	1938	43.94	1936	12.43	26.43
Karjat	1938	43.80	1945	12.83	24.82
Shrigonda	1933	41.27	1945	9.77	22.47
Parner	1956	33.69	1939	13.28	22.24
Sangamner	1933	35.58	1952	11.88	22.21
Rahuri	1943	37.96	1952	8.50	22.19
Kopergaon	1956	39.35	1952	6.19	22.02

Source: Districts of Maharashtra, Ahmednagar, Government of Maharashtra.

Kopergaon, Rahuri and Sangamner talukas have the lowest average rainfall. They have already been provided with irrigation from Pravara and Godavari Canals.

#### 2.4 Nature and Effects of Famine

In a country of tropical climate with its cultivated area for the most part unprotected by artificial irrigation, rainfall must play a crucial role in determining crop yields and supplies of food from land. That, indeed, is the case in India. The immediate cause of famine in this country is almost invariably traceable to drought or unseasonal rains. <sup>9/</sup> Between 1801 and 1908, 30 famines visited the Bombay Presidency. <sup>10/</sup>

Until about the close of the 19th century, the railways were not fully developed and the other means of transport were scanty and trade in grain limited, famine meant

<sup>8/</sup> The Indian Irrigation Commission of 1901-03, Part I, p. 4.

<sup>9/</sup> Famine Commission, 1880, Report, pp. 1-7.

<sup>10/</sup> B.M.Bhatia, Famines in India, 1963, Appendix A, p. 343.



extreme hunger faced by the population of a region as a result of the failure of the accustomed food supply caused by the climatic factor. The usual custom was for each village to store the grain of surplus years to be used in the scarcity years. But the increasing commercialization of rural economy led to the abandonment of this practice. <sup>11/</sup> In the period of scanty transport, therefore, famines involved heavy mortality among men and cattle, large-scale migration; epidemics, increase in indebtedness and other evils. <sup>12/</sup> Famines extending over 2 to 3 years aggravated the intensity of sufferings. With the development of the railways and other means of communications since the beginning of the present century, the character of famine has changed from a physical shortage of food to temporary dislocation of employment amongst large numbers of population consequent upon failure of crops of the season. <sup>13/</sup> However, the most vital economic causes from which distress and starvation generally originate during a period of drought are the want of resourcefulness or resisting capacity of the ryots, their chronic poverty and their indebtedness. <sup>14/</sup>

## 2.5 Famine Relief Works

In addition to the temporary measures to ameliorate distress conditions following the occurrence of famines, such as suspension or remission of land revenue, grant of Taccavi loans for purchase of seed and cattle, construction of wells, etc., the Government have undertaken a large number of irrigation and other public works of permanent utility. These works served the dual purpose of providing employment and of protection against future famines. However, certain limitations prevented such works from attaining their full protective value. For instance, "proximity of each work to the area most in need of relief was a principal factor in determining its selection, due consideration being given to its utility; but many otherwise suitable schemes could not be undertaken owing to deficiency of water supply. <sup>15/</sup> Secondly, the relief works were closed as soon as the scarcity conditions disappeared, the incomplete portions being reserved for completion in subsequent famines. This might involve duplication of certain operations, requiring" .... much of the old work ... to be done all over again." <sup>16/</sup>

---

<sup>11/</sup> Gadgil, D.R., The Industrial Evolution of India in Recent Times, 4th edition, Oxford University Press, Calcutta, 1948, p. 86.

<sup>12/</sup> Satischandra Ray, Economic Causes of Famines in India, 1909, p. 3.

<sup>13/</sup> Loveday, A., The History and Economics of Indian Famines, 1914, p. 1.

<sup>14/</sup> Satischandra Ray, op. cit., p. 9.

<sup>15/</sup> Report on the Famine in the Bombay Presidency, 1899-1902, Bombay, 1903, Vol. I, p. 19.

<sup>16/</sup> Report of the Indian Irrigation Commission, Part II, p. 80.

## 2.6 Necessity of Wells in Famine Liabile Areas

"The importance of wells as sources of irrigation may be gathered from the fact that they supply water to more than one fourth of the total irrigated area, and their immense value in years of drought, from the fact that in the famine year of 1896-97, the area under well-irrigation rose at once by nearly two and a half million acres, while that under tanks fell by nearly one and a half million. And again in 1899-1900, notwithstanding that in many parts the well-supply had begun to fail owing to the succession of dry years, well-irrigation rose by more than a million acres, while irrigation from tanks diminished." <sup>17/</sup> From the above observations of the Indian Irrigation Commission of 1901-03, it is quite clear that the wells play a major role in protecting the agricultural crops in periods of famines due to failure of rains. Looking to the necessity of wells in State agriculture, the Government of Maharashtra has given due importance to well-irrigation as it is clear from the fact that land under well-irrigation (15.86 lakh acres) was more than fifty percent of the total irrigated area (29.34 lakh acres) in the State at the end of the Second Plan. <sup>18/</sup>

The State has a large scarcity or famine liable tract where the rainfall is inadequate and uncertain, and which is subject to frequent scarcity conditions. A change-over from the existing crop pattern to a superior one with a view to increase the per acre output is possible only on the basis of irrigation. The importance of well-irrigation as a means of protecting agricultural crops against failure of rains and of stabilizing agricultural yields and for increasing the productivity of land by diversifying the cropping pattern in the State, therefore, needs no emphasis.

The level of irrigation development in Maharashtra State is far below the level in most of other States. Only 6 percent of the cropped area is under irrigation as against about 20 percent for the country. <sup>19/</sup> To bring the State abreast of other States, it is essential that the organisation and resources should be stepped up to facilitate the extension of well-irrigation in the State "until the maximum numbers have been reached which can be profitably employed." <sup>20/</sup>

## 2.7 Progress of Long-Term Finance for Wells in Ahmednagar District

The Ahmednagar District Cooperative Land Development Bank, Ltd., Ahmednagar was registered under the Maharashtra Cooperative Societies Act of 1925, on the 9th March 1960

---

<sup>17/</sup> Report of Indian Irrigation Commission, 1901-03, Part I, p. 48.

<sup>18/</sup> Third Five Year Plan, Maharashtra State, 1961, p.35.

<sup>19/</sup> Memorandum on the Fourth Five Year Plan, Maharashtra State, 1965, p. 33.

<sup>20/</sup> Report of Indian Irrigation Commission 1901-03, Part I, p. 52.

and commenced its working from 18th February 1961 with the area of operation extending to the whole of Ahmednagar District and with the object of advancing long-term loans to its members on the security of mortgage of immovable property for promoting the activity which adds to the productivity of land such as construction of new wells, repairs to old wells, purchase of oil engines, pumping sets, electric motors, tractors, for bunding, reclamation of land, purchase of land, etc.

The Board of Directors of the Bank was constituted of 17 Directors - Thirteen Directors elected by the borrowing members from thirteen talukas of the district (each representing one taluka), two Directors elected by the non-borrowing (individuals and societies) members, one nominee of the Maharashtra State Cooperative Land Development Bank, Bombay, and one nominee of the Ahmednagar District Central Cooperative Bank, Ahmednagar.

The Bank has opened thirteen branches in the district (one branch at every taluka place).

The progress made by the Bank since its inception till 30-6-1966, in regard to membership and loans advanced is indicated in Table 2.4

The considerable rise in the membership and paid-up share capital and the rising tendency in advancing loans are indicative of the remarkable progress made by the Bank during the six years of its working. Reasons for the steep rise in the loans advanced during 1961-62 - the second year of the working and 1963-64 are that the Bank, with the help of Revenue Authorities, Cooperative Department and the Zilla Parishad, had launched two Campaigns for disbursement of loans in those years. The percentage of recovery to demand during the six years except 1964-65, is somewhat disappointing. During 1964-65, like the Campaign for disbursement of loans, the Bank had launched a Recovery Campaign by appointing additional field staff as a result of which, good recoveries were recorded in that year, but the same tempo of Recovery Campaign was not maintained in the succeeding year.

Loans advanced by the Bank for various purposes during the six years have been given in Table 2.5.

Loans advanced for sinking of new wells constitute the major part of the loaning business of the Bank. Loans advanced for sinking of new wells and purchase of oil engines together form 91.52 percent of the total loans of the Bank; loans for repairs to old wells, 6.85 percent and for other purposes viz. land improvement, purchase of land and tractors, 1.63 percent.

From the loans advanced for sinking of new wells to the order of 56.18 percent of the total loans, it will be clear that the wells have the most important place in the District agriculture which is well-known as a famine tract. And the increasing demand for loans for new wells, therefore, calls for evaluation of utilization of loans made for new wells in the past and the benefits accrued to the cultivators as a result of irrigation so as to have some concrete facts in regard to loaning for wells, which may prove to be the guidelines for future loaning programming of the Land Development Banks.

**Table 2.4:** Showing progress of Ahmednagar District Cooperative Land Development Bank in Membership, paid-up share capital, loan advanced, and loans outstanding, during 1960-61 to 1965-66

(Amount in Rs. lakhs)

Year	No. of members	Paid-up share capital Rs.	Loans advanced during the year Rs.	Loans outstanding at the end of the year Rs.	Total demand Rs.	Total recovery Rs.	Percentage of recovery to demand
1960-61	552	0.39	1.69	1.69	-	-	-
1961-62	3416	3.30	54.62	55.62	0.84	0.44	52.38
1962-63	7243	10.70	74.68	127.35	8.75	5.73	65.49
1963-64	12914	20.60	103.75	235.82	28.45	17.01	59.79
1964-65	15409	28.58	77.98	288.87	43.36	31.66	73.02
1965-66	17997	36.00	77.54	337.09	54.96	36.26	65.96

Source: Annual Reports of the Ahmednagar District Cooperative Land Development Bank for the years 1960-61 to 1965-66.

Table 2.5: Yearwise and purposewise loans advanced by the Ahmednagar District Cooperative Land Development Bank during the six years 1960-61 to 1965-66  
(Amount in Rs.Lakhs)

Year	Sinking of new wells		Repairs to old wells		Purchase of oil engines		Other purposes		Total	
	No. of wells	Amount of loan	No. of wells	Amount of loan	No. of engines	Amount of loan	No. of cases	Amount of loan	No. of cases	Amount of loan
1960-61	62	1.08	2	0.01	21	0.55	3	0.05	88	1.69
1961-62	1747	34.49	411	3.85	593	16.25	3	0.03	2754	54.62
1962-63	2027	45.79	426	4.98	826	23.61	28	0.30	3307	74.68
1963-64	2600	61.09	655	8.65	1086	32.42	97	1.59	4438	103.75
1964-65	1723	42.28	314	4.30	966	30.05	88	1.35	3091	77.98
1965-66	1422	34.52	335	4.93	1072	35.05	124	3.04	2953	77.54
Total of 6 years	9581	219.25	2143	26.72	4564	137.93	343	6.36	16631	390.26
Percent of total	-	56.18	-	6.85	-	35.34	-	1.63	-	100.00

Source: Annual Reports of the Ahmednagar District Cooperative Land Development Bank, for the six years from 1960-61 to 1965-66.

Table 2.6 gives Taluka-wise and year-wise loans advanced for new wells by the Ahmednagar District Cooperative Land Development Bank during 1960-61 to 1965-66 in the Ahmednagar District.

Kopergaon Taluka stands first in respect of number of wells and amount of loan for them; Shevgaon, Sangamner and Rahuri Talukas occupy second, third and fourth position respectively. The lowest number of wells and quantum of loan are in Jamkhed Taluka. The amount of loans advanced for the new wells in the talukas selected for the survey viz. Ahmednagar, Shrigonda, Parner, Karjat and Jamkhed, constitutes 25.10 percent of the total loan advanced in the district.

Despite the fact that the Kopergaon, (part of) Sangamner, Rahuri and Shrirampur talukas which receive irrigation from the Godavari and Pravara Canals, have also been advanced quite considerable portion of loans for new wells i.e. about 44.33 percent of total loan, working out to an average 11.08 percent per taluka; while the remaining nine non-irrigated talukas constitute 55.67 percent of the total loan, working out to an average 6.18 percent per taluka. This poses a glaring disparity in respect of loans advanced in the irrigated areas and non-irrigated areas of the district. The Bank's just and right policy should have been to benefit the non-irrigated tracts of the district more. One of the main reasons for concentration of investment of finance in the irrigated areas appears to be the political influence over the working of the Bank. The flow of long-term finance for wells requires to be directed comparatively more to the talukas which are not served by canal irrigation and are subjected to the severity of famines; failing which, it will lead to the lopsided development of agriculture in the district as it has already taken shape, which is evident from the fact that all the nine sugar factories are concentrated in these irrigated talukas, and one more which is already granted licence, will also be coming up soon in Sangamner taluka.

Table 2.6: Talukawise and yearwise loans advanced by the Ahmednagar District Cooperative Land Development Bank for new wells in Ahmednagar District during 1960-61 to 1965-66

(Amount in Rs. lakhs)

Taluka	1960-61		1961-62		1962-63		1963-64		1964-65		1965-66		Total of six years		Percent of total loans advanced
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
Kopergaon	-	-	157	3.27	394	9.29	579	13.21	154	4.27	104	2.77	1388	32.81	14.97
Shevgaon	16	0.27	159	3.18	266	6.23	274	6.65	251	6.74	214	5.46	1180	28.53	13.01
Sangamner	3	0.05	254	4.78	151	3.14	308	7.58	167	4.47	117	3.04	1000	23.06	10.52
Rahuri	23	0.39	260	5.06	201	4.98	181	4.43	178	4.55	77	1.74	920	21.17	9.66
Ahmednagar	8	0.17	237	4.62	142	3.29	178	4.41	153	3.63	161	3.77	879	19.89	9.07
Pathardi	-	-	109	2.17	199	4.07	261	5.70	184	3.79	120	2.55	873	18.28	8.34
Newasa	4	0.06	78	1.55	145	3.02	155	3.70	208	5.18	166	4.22	756	17.73	8.09
Shrirampur	1	0.03	66	1.35	164	3.96	231	5.64	119	2.95	82	1.82	663	15.75	7.18
Shrigonda	7	0.11	146	2.92	149	3.31	143	3.23	70	1.60	78	1.91	593	13.08	5.97
Parner	-	-	71	1.63	81	1.59	120	2.75	109	2.28	93	2.24	474	10.49	4.78
Karjat	-	-	85	1.57	58	1.23	55	1.09	65	1.35	91	2.17	354	7.41	3.38
Akola	-	-	86	1.68	54	1.23	59	1.40	33	0.77	71	1.81	303	6.89	3.13
Jamkhed	-	-	39	0.71	23	0.45	56	1.30	32	0.70	48	1.00	198	4.16	1.90
Total of all Talukas	62	1.08	1747	34.49	2027	45.79	2600	61.09	1723	42.28	1422	34.52	9581	219.25	100.00

Source: Annual Reports of the Ahmednagar District Cooperative Land Development Bank.

1 = No. of wells.  
2 = Amount of loan.

## CHAPTER III

### THE SURVEY - ITS DESIGN AND METHODOLOGY

This chapter deals with the need for a Survey, character of Survey, selection of Talukas, selection of villages, the Schedule, response to the Schedule, time required for canvassing the Schedule, accounting period and the structure of the Report.

#### 3.1 The Need for a Survey

The need for a special survey arose from the objective of the present work viz. a study of utilization of long-term loans for new wells advanced by the Land Development Bank especially in the famine liable areas. The sources of information regarding the progress of long-term finance for the State and the Ahmednagar District were the annual reports of the Land Development Banks, and for the information regarding loans advanced for sample wells were the records of the Bank's branches located at Taluka Headquarters; while the information regarding utilization of loans for sample wells and some aspects of farm business - the core of this study, could be obtained only through the special survey.

#### 3.2 Character of the Survey

The first problem in the initial stages of the survey was drawing a sample of the villages and the wells from the famine liable talukas. The coverage of the whole inquiry had to be planned by taking into consideration the period available for study. At the time of planning this work, it was found that not more than six months could be devoted to the work of data collection. It was, therefore, decided as a feasible proposition to cover five talukas of the district, mostly affected by famines, which make a compact area to the south-east of the district, and about ten percent of the total wells in these five talukas, for which loans were made. The following sections detail the procedure adopted for drawing a sample of the villages and the wells.

#### 3.3 Selection of Talukas

From Table 2.3, regarding talukawise average rainfall in the district, it would be seen that Kopergaon, Rahuri and Sangamner talukas have the lowest average rainfall. But since these talukas have been already provided with irrigation from Godavari and Pravara Canals, the talukas next to these, in respect of low rainfall i.e. Parner, Shrigonda, Karjat, Ahmednagar and Jamkhed, were selected for this study.

#### 3.4 Selection of Villages

The first step in drawing a sample of the villages was the preparation of the exhaustive village-wise lists for all the selected talukas, showing therein the names of the cultivator-borrowers, their dates of applications for loans, dates of sanction of loans, dates of disbursements of first instalments and second instalments, amounts of loans sanctioned and disbursed, recoveries effected, loans defaulted and the dates of defaults. The village-wise



lists of this type, for all the selected five talukas were prepared after visiting the Bank's branches in these talukas, located at Taluka-Headquarters. And from these lists, another lists for the five talukas were prepared wherein the villages to which code numbers were given were arranged serially with the decreasing order of number of loans for wells in the villages and giving the cumulative numbers to the wells against the code numbers of the villages. The villages were then selected on the basis of one village for every hundred wells, with the help of Table XXIII Random Numbers (IV) from the Statistical Tables for Biological, Agricultural and Medical Research by Ronald A. Fisher and Frank Yates, 1943; as could be seen from the Appendices No. 1(a), (b), (c), (d) and (e). The position regarding talukawise total number of wells, the number of villages selected and the number of wells for which loans were made in such selected villages were shown in Table 3.1 (See p.40).

The difference in the figures of the Bank's Annual Report and the figures arrived at on collection of data from the branch records on personal visits, regarding the total number of wells in the talukas, was due to the fact that the Bank has treated cases for additional loans, as fresh ones. This leads to the duplication of cases since the cases for additional loans are nothing but supplementary demands for additional loans for the previous cases when the previous loan falls short.

In all, 293 wells from 24 villages were selected, out of which, 277 were covered under survey. Reasons for leaving 16 wells uncovered were that (i) in respect of 5 wells, cases for additional loans were treated as fresh ones, which were overlooked due to incorrect information from the branches of the Bank, (ii) in respect of 6 wells, the cultivator-borrowers or major members of their families were not available at the time when villages were visited for survey, (iii) 3 wells belonging to unselected villages, were misplaced in the selected villages as they were mis-recorded at the branches, (iv) in respect of one well, the amount of first instalment of loan received by the cultivator, was immediately returned to the Bank and the case was closed, and (v) a case of one old well was wrongly recorded as that for new well, at the branch.

Table 3.2 shows the villages selected and surveyed and the amount of loans sanctioned and issued for all the new wells from such selected villages from the selected five talukas.

### 3.5 The Schedule

The schedule canvassed among the well-owners, is reproduced in full in Appendix 2. The principal features of the schedule are:-

- (a) Data pertaining to land holdings of the well-owners.
- (b) Data pertaining to loans for wells sanctioned, deductions made and net amount disbursed, the period required for sanction and disbursement of loan; recovery and default of loan. (This data was collected from the Bank's branches situated in the respective talukas and was confirmed with the knowledge of the well-owners).

**Table 3.2:** Villages selected, Number of wells from these villages and the amount of loans sanctioned and issued for them during 1960-61 to 1965-66

Taluka	Sr. No.	Name of village	No. of wells	Loans sanctioned Rs.	II instalment not paid Rs.	Loans Issued Rs.
Ahmednagar	1	Ruichhattishi	27	77,500	-	77,500
	2	Kedgaon	20	45,500	-	45,500
	3	Sarola Kasar	18	49,000	1,500	47,500
	4	Bhoirepathar	13	30,600	-	30,600
	5	Mehakari	11	25,500	-	25,500
	6	Dashmigavhan	10	23,600	1,750	21,850
	7	Shahapur	5	12,600	-	12,600
	8	Hatvalan	3	8,000	-	8,000
Total of 8 villages			107	2,72,300	3,250	2,69,050
Shrigonda	1	Belwandi	30	70,200	1,500	68,700
	2	Vadghul	15	30,300	1,500	28,800
	3	Chikhali	14	35,850	-	35,850
	4	Chamburdi	10	21,900	1,250	20,650
	5	Yelapne	9	21,800	1,200	20,600
	6	Sarola Somvanshi	3	6,500	-	6,500
Total of 6 villages			81	1,86,550	5,450	1,81,100
Parner	1	Ranjangaon	22	61,500	2,500	59,000
	2	Supa	11	23,800	2,050	21,750
	3	Devibhoyare	8	21,300	1,500	19,800
	4	Pimpalgaon Rota	4	8,100	-	8,100
	5	Ghanegaon	3	8,500	-	8,500
Total of 5 villages			48	1,23,200	6,050	1,17,150
Karjat	1	Durgaon	11	21,800	-	21,800
	2	Nagalwadi	8	21,700	-	21,700
	3	Ambijalgaon	5	8,550	-	8,550
Total of 3 villages			24	52,050	-	52,050
Jamkhed	1	Hatvalan	13	28,300	1,250	27,050
	2	Savargaon	4	7,900	1,400	6,500
Total of 2 villages			17	36,200	2,650	33,550
Total of 5 talukas	24	villages	277	6,70,300	17,400	6,52,900

- (a) Data pertaining to expenses for digging and construction - charges for labour employed, and the costs of materials required for the work, family labour employed, period required for work, amount of loan consumed against family labour, amount of loan utilized for purposes other than those pertaining to well-work; difficulties if any in procuring the required materials and the labour.
- (d) Difficulties encountered in obtaining loan from the Bank.
- (e) Sources of additional amounts required to be spent on well-work in case the bank loan fell short.
- (f) Sources of repayment of bank loan instalments.
- (g) Data pertaining to cropping pattern prior to irrigation and after irrigation.
- (h) Data pertaining to output of crops raised prior to irrigation and after irrigation.
- (i) Data pertaining to investment on installation of oil engines or purchase of Mot (water bag) and its accessories, strength of bullocks, increase in the number of bullocks due to irrigation and their costs, and the land improvement made and expenses incurred for them.
- (j) Data pertaining to additional current farm expenses arising out of irrigation.

The schedule was finalised after testing the same in one of the selected talukas. Every schedule finally used pertains to the aspects of loan, expenses on well-work and associated costs and some aspects of the farm business under the acreage brought under irrigation from this well, both for the crops raised before irrigation and after irrigation. The data gathered, thus, pertain to 277 sample wells covered under survey except those of the farm business which pertain only to the wells which were working in the year 1966-67 i.e. 92 wells. The figures of the output of the farms under the wells from the Jamkhed and Karjat talukas, for the year 1966-67, were estimated taking into consideration the conditions of the standing crops as these talukas were visited for survey in January and early in February 1967 when the crops were being harvested; and the output of the farms under the wells for 1966-67 from the remaining three talukas were the actuals as given by the well-owners. Of 92 working wells, wells working in 1965-66 were 74 and in 1964-65, 53 and hence the farm business data for 1964-65 and 1965-66 pertain to these wells only.

### 3.6 Response to the Schedule

Judging by the number of schedules actually filled as a proportion of the target, the Survey may be deemed to have been successful. The quality of response on the whole, was also satisfactory. To obtain as much accuracy as possible in the quantitative data, special measures were adopted. For instance, before canvassing the schedule in any village, inquiries were first made about the rates of labour and materials, general terms of contracts for digging and construction of wells, and about the character of season

and harvests. The normal expenses for the digging work were ascertained by making inquiries with some of the enlightened cultivators, as also in case of construction work. As regards normal output obtained per acre of a specific crop in the year was also ascertained in the same manner. When any respondent stated his digging cost or construction cost or output of the crop, which markedly deviated from the normal, attempts were made to inquire into the special reasons leading to the marked deviation. The information given by the cultivator was also tested by inquiring with the neighbouring cultivators, who had some knowledge about the well-work and farm output of the well-owner. In this way, all possible measures were adopted to arrive at as much accurate figures as possible.

The attitude of the cultivator-borrowers to the Survey in the first instance, used to be one of suspicion, that the inquiries were made with a view to recover the portion of loan, that was misutilized by them or that the investigation was made into the bribes that might have been given during the process of obtaining loan. Some of the well-owners who had defaulted the bank loan instalments, were susceptible to giving correct information about the loan utilized and farm output as they were afraid if they gave the correct figures about these, the recovery of the Bank dues would be forthwith effected. These suspicions were removed by convincing them that the writer was not concerned with the Bank or any Government Department but was a research student working for a degree for which he was to write a book on the difficulties encountered by them in the process of obtaining loan and how far they had benefitted by it. There was a general tendency among the borrowers who had misutilized some portion of the bank loan, to inflate the cost of incomplete well-work. To check the inaccuracy in the information given by such cultivators, the measures stated earlier were applied and the inaccuracy in the information was avoided. The purposes for which loan was misutilized, were ascertained by putting to the cultivators, indirect questions just by way of casual talks during night halts at their hutments on the farms.

### 3.7 Time Required for Canvassing the Schedule

The branches of the Bank were visited twice during the course of the Survey. During the first visit paid in September and October 1966, general information about the loans advanced for new wells, which was required for drawing a sample of villages, was collected; and in the second visit occurring in November and December 1966, part of the schedule relating to the information about the loan was filled up. The major portion of the schedule required to be answered by the cultivator-borrowers, was filled up on one visit to them. The field survey to fill up all the 277 schedules lasted for about five months from January to May 1967.

The writer did not employ any assistants for executing the field work except that the Bank supervisor attached to the branch used to accompany him to the villages with a view to introducing the cultivator-borrowers to him. The supervisor's visit was also intended to effect recoveries wherever possible. He used to be busy with his own work while the writer employed himself on the job of filling up the schedules, and visiting the places where wells were situated. All the wells covered under the Survey were seen

by making personal visits to the spots and in some of the cases wherever found necessary, snaps of the spots were also taken. The entire field-work was conducted by him. Personal conduct of the field-work and making night halts at the hutments of the cultivator-borrowers on the farms, made it possible for him to acquire a first-hand knowledge of the malpractices prevalent in the process of obtaining loans, to enquire into the difficulties encountered in obtaining loan and in completing the well-work, and to enquire into certain problems relevant to the study but not included in the schedule, and to prepare notes based on discussions with the cultivator-borrowers, which have been of great help in the final analysis.

### 3.8 Accounting Period

The period for study of the utilization of long-term finance for new wells as previously stated, pertains to the years from 1960-61 to 1965-66. The cooperative year is from July to June of the following year. Hence, the data and information collected through the schedule, regarding the loaning aspects pertain to the period from 1960-61 to 1965-66; while the data regarding some aspects of farm business pertain to the wells which were working in 1966-67 and for the three years 1964-65, 1965-66 and 1966-67. In 1966-67, 92 wells of the total sample wells were working, of which, in 1965-66, 74 and in 1964-65, 53 wells were working.

### 3.9 Structure of the Report

The report is divided into seven chapters. The first chapter deals with the Statement of the Problem, and the second chapter, with the description of general features of Ahmednagar District and the progress of long-term finance for new wells in the district, while the third chapter is devoted to a discussion of the Survey. Chapter IV deals with the loaning policy and procedure and the quantum of finance for sample wells. Chapter V is devoted to the utilization of long-term finance for new wells. Chapter VI is concerned with the analysis of the farm business of the working wells, and Chapter VII deals with the economic appraisal of the programme.

Table 3.1: Taluka-wise total number of wells, number of villages selected and the number of wells in such selected villages

Name of Taluka	Total No. of new wells		No. of selected villages on the basis of one village for every hundred wells	Total No. of new wells for which loans were made in such selected villages	No. of wells surveyed
	As per Bank's Annual Report for 1965-66	As per information personally collected from the branches			
Ahmednagar	958	823	8	115	107
Shrigonda	654	595	6	84	81
Parner	505	478	5	50	48
Karjat	366	330	3	27	24
Jamkhed	224	180	2	17	17
<b>Total</b>	<b>2,707</b>	<b>2,406</b>	<b>24</b>	<b>293</b>	<b>277</b>

## CHAPTER IV

### LONG-TERM FINANCE FOR SAMPLE WELLS

This chapter deals with the policy and procedure governing sanction of long-term loans for sinking of new wells, period required for sanctioning loans in respect of sample wells, period between two instalments of loans, quantum of loans advanced for sample wells, deductions made from loans by the Ahmednagar District Cooperative Land Development Bank for various purposes and the subsidy granted for sample wells by State Government.

#### 4.1 Policy and Procedure

The Ahmednagar District Cooperative Land Development Bank has been implementing the scheme for grant of loans and subsidy for the construction of new wells according to the policy laid down under the State Government's Resolution No. WEL 1062/F dated 28th December 1962, under which the business of Taccavi loans for new wells has been channelised through the Land Development Banks in the State. The object of the scheme is to give financial assistance to landholders who have lands but no adequate funds to construct a new well to enable them to increase agricultural production with the help of well-irrigation.

#### A. Policy governing sanction of loan and subsidy

(i) The scheme is under the overall control of the Director of Agriculture, Maharashtra State, who should be approached by the Land Development Banks regarding grant of subsidy for the cases sanctioned by them. The Five Year Plan targets are communicated to the Registrar, Cooperative Societies, by Government in the Agriculture and Forests Department and the yearly targets are fixed by the Director of Agriculture in consultation with the Registrar, Cooperative Societies, with the approval of Government. The Maharashtra State Cooperative Land Development Bank, Ltd., Bombay arranges for necessary funds in consultation with the Registrar of Cooperative Societies and the Government in the Cooperation and Rural Development Department.

(ii) The subsidy amount is paid by the Director of Agriculture to the Land Development Banks every year on the basis of the number of cases sanctioned for grant of subsidy by the Block Development Officers of the Agricultural Department on completed wells.

(iii) A loan is sanctioned to the extent of the total estimated cost of construction of a new wells subject to a maximum of Rs. 2500, provided, however, that the Land Development Banks are competent to advance loans to the maximum extent of Rs. 4000/- if the Block Development Officer of the area concerned certifies the necessity for grant of enhanced loans in deserving cases to that extent, having regard to the strata, depth and requirements of material and labour in that district. The Banks are entitled to grants-in-aid on account of service charges on such enhanced loans. The Banks, can advance loans in excess of the above mentioned limits but no grants-in-aid on account of the differential rate of interest is admissible on the excess amount.

(iv) The loan is advanced in two instalments, the first to be given before the commencement of the work and the second after verification from documentary proofs or by panchanama and the certificate from either the Block Development Officer/Agricultural Extension Officer or the Bank's Enquiry Officer to the effect that approximately half the work is completed and the full amount of the first instalment is utilized.

(v) The principal shall be recovered in ten annual instalments. The first instalment shall be recovered 12 months after completion of the well or 24 months after the drawal of the first instalment of the loan, whichever is earlier. With effect from the 1st April 1960, interest at 4-1/2 percent per annum shall be charged from the date the loan is disbursed to the borrower.

(vi) The lands offered as security are valued at 300 times of the assessment of the land subject to a minimum of Rs. 300/- per acre. The full cost of the proposed improvement is added to the valuation so arrived at and loan can be sanctioned to the extent of 50 percent of the total valuation.

(vii) The estimated, actual or probable cost shall be inclusive of the cost of purchasing and installing dead-stock comprising the lifting apparatus necessary for utilising the well for irrigation (not including, however costly machinery such as oil engines, pumps, etc. for the purchase of which taccavi is admissible under another scheme).

(viii) It shall be incumbent upon the loanee of the Bank to build up the well exactly according to the specifications and details mentioned in the application as approved finally in the order sanctioning the loan and subject further to the condition of the well being actually useful for irrigation. It is open to the Block Development Officer/the Agricultural Extension Officer to decide whether a well is completed or not with reference to the geographical, climatic and soil conditions in their districts and to stipulate additional conditions, if necessary at the stage when a well is to be treated as complete, for the purpose of granting subsidy. The Superintending Agricultural Officer should carry out 5 percent check in this respect each year.

(ix) The subsidy for the construction of a new well shall be equivalent to 25 percent of the actual cost of construction of a new well as estimated by the competent authorities (namely Panchas of the Gram Panchayat or leaders in a village) subject to the maximum of Rs. 500/- per well. This subsidy shall be provisionally sanctioned in respect of those cultivators who construct a new well within the stipulated period of 12 months from the date of receipt of the first instalment of the loan and finally sanctioned after verification that no less than 3 acres of the land under the command of the well is irrigated for at least 3 consecutive years after completion of the well. If the area falls below this figure in any year, the breach of the condition shall be condoned, provided, the Block Development Officer of the area concerned certifies that it was not possible to fulfill the condition for reasons beyond the control of the cultivator. On provisional sanction of the subsidy the budget allotment for the

amount which will have been placed at the disposal of the Land Development Banks by the Director of Agriculture shall be provisionally adjusted immediately after work is finally completed and brought into use. The subsidy shall be in the form of remission of an equivalent amount of the loan advanced.

(x) The Land Development Banks are also entitled to service charges from Government to the extent of difference between their economic lending rate as may be fixed by Government every year and the concessional rate of interest of 4-1/2 percent per annum. These service charges are provided for and paid at the end of each year by Government after ascertaining from the Maharashtra State Cooperative Land Development Bank, the amounts to be fixed.

(xi) The concessions that are granted in respect of failed wells shall be in the form of (a) remission of total interest and (b) remission of 20 percent of the outstanding loans. In individual cases of hardship it would be open to Government to remit the amount of loan upto 50 percent or even more when it is found that the cultivator is not in a position to bear the expenditure on the construction of the well which has failed on account of factors beyond his control. Such cases in respect of cultivators in the areas should be referred to Government. The procedure in doing so is as follows:-

(a) The District Agricultural Officer should decide whether the well has failed and report the matter with all the facts regarding the failure to the concerned Land Development Bank.

(b) The Land Development Bank should then verify the financial position of the cultivator by supplying to the District Agricultural Officer all the information regarding the repaying capacity of the cultivator, such as the area cultivated, whether irrigated or not, the nature of crops grown and generally the net profit derived from the land by the cultivator.

(c) On receipt of information from the Land Development Bank, the District Agricultural Officer should examine the position and recommend to the Director of Agriculture whether the concession of the remission of 50 percent of the outstanding loan would be justified in the particular case or not.

(d) The Director of Agriculture should then forward to Government in Agriculture and Forests Department cases recommended by him. The question would then be further examined by Government.

These concessions will be reimbursed to the Land Development Banks by an equal amount to the Banks from the funds placed at the disposal of the Director of Agriculture for grant of subsidy.

#### B. Procedure to be followed in grant of loans and subsidy

(i) All applications for loans should be made in the form prescribed by the Maharashtra State Cooperative Land Development Bank with the approval of the Registrar, Cooperative Societies. Copies of the loan application forms should be got printed by the primary land development banks



and distributed to the Receiving Officers to be appointed by the Land Development Banks. The Receiving Officers would be Block Development Officers, Assistant Block Development Officers, Gram Sevaks,\* Agricultural Extension Officers as well as members of the staff of the Bank at the head office and the branches as may be considered necessary. As far as possible, the Land Development Banks should appoint Gram Sevaks of the area concerned as Receiving Officers for the purpose of receiving loan applications. The Banks should also supply them blank registers in the prescribed form bearing the seal of the Bank for entering loan applications received by them. On receipt of the loan applications by the Receiving Officers, they should put their initials and the date of receipt on them and scrutinise them and obtain and attach to the applications copies of the following documents:-

(a) Extracts from Village Record, 7/12 from 1956-57 onwards, to be issued by the Talathi of the village,\*\* certifying the present ownership of a particular piece of land.

(b) Village Form No. 8A i.e. Khata Extract, to be issued by the Talathi of the village, certifying the total holding.

(c) Mutation Entries, giving historical aspect of the land or sale-purchases of the past, to be issued by the Talathi or by the Revenue Office.

(d) Documents relating to ownership i.e. sale-deed etc. for establishing the title to the land.

(e) No dues Certificates - One to be issued by the Revenue Office and the other to be issued by the Chairman of the concerned cooperative society to the effect that the dues of the loans advanced by them are not defaulted by the farmer.

(f) Two copies of the maps of land owned by the farmer.

The Gram Sevaks should, thereafter, make an entry of the receipt of the application in the register of applications for loan in chronological order. They should see that the case is complete in all respects. If anything is found incomplete in the application, the same should be got completed by them.

(ii) Along with the loan application, the applicant should pay all the fees specified by the Maharashtra State Cooperative Land Development Bank with the approval of the Registrar, Cooperative Societies, and deposit an amount equivalent to the value of one share of the Bank with the Receiving Officer. The fees and the deposit so received by the Receiving Officer should be remitted by him to the Land Development Bank concerned.

---

\* Village Level Workers.

\*\* Village-servant.

(iii) After scrutiny of the loan applications, the Receiving Officers should forward them to the Public Enquiry Officers viz., Block Development Officers. Immediately on receipt of loan applications, the Public Enquiry Officer proceeds to give at least 8 days' notice in Form 'S' as laid down under Rule 93(8) of Maharashtra Cooperative Societies Rules, 1961. Sufficient number of copies of the notice are sent to the Talathi of the village concerned and he should give the notice by beat of drum and also affix a copy of the notice at the Chavdi of the village where the applicant resides. The village Talathi should then send a report of compliance within eight days. The Public Enquiry Officer should also send copies of the notice to the Land Development Bank concerned and its branch for being exhibited at a prominent place in their offices. After ensuring that the notice has been properly served, the Public Enquiry Officer will bear the objections, if any, at the time and place fixed in the notice. On considering these objections submitted to him, the Public Enquiry Officer shall make an order in writing either upholding or over-ruling the objections to the loan from the interested parties on the lands offered in mortgage. If no objections are received within the stipulated time, the Public Enquiry Officer issues no objection certificate.

At the same time, the Enquiry Officer who is the Extension Officer conducts the enquiry of the loan. His duty is to value the lands, estimate the income and the repaying capacity of the applicant on visiting his place. Both the Public Enquiry and the enquiry of loan application are conducted simultaneously to avoid the delay.

The Block Development Officer, with his recommendation and No-objection Certificate should send the application to the land development bank within 15 days.

(iv) On receipt of the reports of the Public Enquiry Officer and of the Enquiry Officer, the Loan Sub-Committee of the Land Development Bank shall consider the loan application and pass final orders, as early as possible and in any case within 30 days. The Bank should, thereafter, communicate its decision to the applicant within 7 days and shall also lay down the terms and conditions regarding grant of loan, payment of instalments of loan, submission of report on the progress of improvement of land, etc. and the applicant is requested to remain present at the branch office of the Bank on a date fixed for execution of mortgage deed and for receiving the first instalment of loan, therefore, such date shall not ordinarily be later than 15 days from the date of communication of sanction of loan to the applicant. When receiving the first instalment of loan, the applicant shall also purchase shares of the Bank to the extent required under its byelaws and pay the balance of enquiry fees, if any.

(v) In order to get the second instalment of loan, the applicant has to obtain a certificate that half the work has been completed and for that the amount has been utilized for the purpose stipulated in the prescribed form from the Block Development Officer/Agricultural Extension Officer or the Bank's Enquiry Officer, which is produced before the Land Development Bank and on receipt of which the Bank pays the second instalment of loan.

(vi) The full and final work completion certificate is given by the Block Development Officer/Agricultural Extension Officer of the area concerned in the prescribed form, and subsidy is provisionally sanctioned to the loanee and payment of which is ordered from out of the budget allotment placed at his disposal by the Director of Agriculture to the Land Development Bank.

(vii) After three years, the Block Development Officer issues a certificate to the Land Development Bank that the stipulated conditions (viz. construction of a new well within 12 months and bringing under irrigation minimum 3 acres of land for at least 3 consecutive years) have or have not been fulfilled. On receipt of this certificate, the land development bank takes action in regard to final adjustment of the subsidy.

(viii) The loan is to be repaid within a maximum period of 10 years. The maximum due date of payment of yearly instalment of the principal and interest charges (equated annual instalments) is the 31st March every year. If the instalment of loan is not paid upto 31st March, the same is treated as defaulted and the penal rate of 3 percent over and above the concessional rate of interest at 4-1/2 percent is charged on the amount defaulted and from the date of default. Defaulters are issued 8 days' notice, failing which a second notice (under Section 137) is issued; (a copy of the notice is also sent to the District Deputy Registrar of Cooperation).

(ix) As a last method of recovering the loans, the Special Recovery Officer appointed by the Land Development Bank, auctions the property of the farmer (including his landed property mortgaged to the Bank).

As per the policy, the principal should be recovered in 10 annual instalments, and the first instalment of loan should be recovered 12 months after completion of the well or 24 months after the drawal of the first instalment of the loan whichever is earlier. But in practice, this policy was not followed. The first instalment of the loan was recovered on the 31st March if the loan was advanced before January of the same year irrespective of whether the well was completed or not and the crops under the well-irrigation were raised or not. Supposing, the first instalment of the loan was made in November or December 1965, the recovery of the first instalment of the loan was made on or before 31st March 1966 i.e. within 4 months of the disbursement of the first instalment of the loan; and the amount of the first instalment was recovered out of the amount of the second instalment of the loan subsequently disbursed on completion of the work of the first instalment of the loan i.e. out of the amount of the second instalment of the loan, payable to the loanee, the recoverable amount of the first instalment of the loan from him was deducted and the balance was paid to him. There was the general practice of recovering the amount of the first instalment of the loan from the amount of the second instalment of the loan payable to the loanees, if the latter was disbursed from November onwards. This unhealthy practice followed by the Bank has adversely affected the purpose for which loans were made. Explanations of the Bank in this respect were that the Reserve Bank of India which advances loans for long-term purposes to the district cooperative land development banks through the State Cooperative Land Development

Bank does not wait for a period of 24 months from the issue of loans for repayment of the first instalment of the loan from them but recovers on the following 31st March. The Reserve Bank of India should examine its policy in this respect and allow the policy of recovering the first instalment after 12 months after the completion of the well or 24 months after the drawal of the first instalment of the loan, that will enable the farmers to complete the well-work in 12 months and in the remaining 12 months they can raise crops under well-irrigation and pay the first instalment out of the sale of these crops.

#### 4.2 Difficulties of Farmers in Obtaining Loans

The scheme of constructing new wells was first introduced in Maharashtra State in 1947 under the campaign of "Grow More Food". At that time it was implemented through the Agriculture Department of the State Government. The applications of well-taccavi loans were received by the District Development Board and the Executive Committees of the said Board used to sanction the well-taccavi loans and the admissible subsidy thereon. The disbursement of these loans was entrusted to the Revenue Authorities.

From 1958-59 to 1960-61, the business of well taccavi loans was partly routed through the land development banks and from 1961-62 onwards, looking to the achievements of the land development banks in advancing taccavi loans for new wells, the entire business of taccavi loans for new wells was transferred to the land development banks. The scheme was, therefore, generally known to the cultivators in the State even prior to its transfer to the land development banks. The Ahmednagar District Cooperative Land Development Bank after having commenced its working from February 1961, had undertaken the propaganda and 'Drive' for disbursement of Taccavi loans for new wells through it and its branches, throughout the district of Ahmednagar. Pamphlets regarding disbursement of Taccavi loans through the Bank were supplied to the Gram Sevaks to distribute them to the cultivators in the villages. The Gram Sevaks were also requested to announce the scheme in the villages by beat of drum. In this way, the scheme having been undertaken by the Bank was made popular. During the course of the Survey, it was observed that about 15 percent of the total sample borrowers came to know the scheme by way of propaganda through the distribution of pamphlets and by beat of drum; about 25 percent of the sample borrowers knew from the Gram Sevaks, Talathis and local leaders; 5 percent from the Directors and staff of the Bank, other Government and semi-Government servants, and about 55 percent sample borrowers replied that they knew the new scheme from the persons who had already obtained Taccavi loans for wells in their villages.

In the preceding section 4.1, a lengthy procedure in sanctioning a loan application of the farmer has been outlined in detail. A considerable delay caused due to this procedure, and the illiterate farmer had to face great amount of procedural difficulties by way of collecting several certificates and documents from different offices. Due to his ignorance and illiteracy, the farmer was quite vulnerable to corrupt practices followed by officials. Talathis of all the selected villages under the Survey, except one, were reported to be most uncooperative and indifferent in dealing with the farmers. Majority of the

(vi) The full and final work completion certificate is given by the Block Development Officer/Agricultural Extension Officer of the area concerned in the prescribed form, and subsidy is provisionally sanctioned to the loanee and payment of which is ordered from out of the budget allotment placed at his disposal by the Director of Agriculture to the Land Development Bank.

(vii) After three years, the Block Development Officer issues a certificate to the Land Development Bank that the stipulated conditions (viz. construction of a new well within 12 months and bringing under irrigation minimum 3 acres of land for at least 3 consecutive years) have or have not been fulfilled. On receipt of this certificate, the land development bank takes action in regard to final adjustment of the subsidy.

(viii) The loan is to be repaid within a maximum period of 10 years. The maximum due date of payment of yearly instalment of the principal and interest charges (equated annual instalments) is the 31st March every year. If the instalment of loan is not paid upto 31st March, the same is treated as defaulted and the penal rate of 3 percent over and above the concessional rate of interest at 4-1/2 percent is charged on the amount defaulted and from the date of default. Defaulters are issued 8 days' notice, failing which a second notice (under Section 137) is issued; (a copy of the notice is also sent to the District Deputy Registrar of Cooperation).

(ix) As a last method of recovering the loans, the Special Recovery Officer appointed by the Land Development Bank, auctions the property of the farmer (including his landed property mortgaged to the Bank).

As per the policy, the principal should be recovered in 10 annual instalments, and the first instalment of loan should be recovered 12 months after completion of the well or 24 months after the drawal of the first instalment of the loan whichever is earlier. But in practice, this policy was not followed. The first instalment of the loan was recovered on the 31st March if the loan was advanced before January of the same year irrespective of whether the well was completed or not and the crops under the well-irrigation were raised or not. Supposing, the first instalment of the loan was made in November or December 1965, the recovery of the first instalment of the loan was made on or before 31st March 1966 i.e. within 4 months of the disbursement of the first instalment of the loan; and the amount of the first instalment was recovered out of the amount of the second instalment of the loan subsequently disbursed on completion of the work of the first instalment of the loan i.e. out of the amount of the second instalment of the loan, payable to the loanee, the recoverable amount of the first instalment of the loan from him was deducted and the balance was paid to him. There was the general practice of recovering the amount of the first instalment of the loan from the amount of the second instalment of the loan payable to the loanees, if the latter was disbursed from November onwards. This unhealthy practice followed by the Bank has adversely affected the purpose for which loans were made. Explanations of the Bank in this respect were that the Reserve Bank of India which advances loans for long-term purposes to the district cooperative land development banks through the State Cooperative Land Development

Bank does not wait for a period of 24 months from the issue of loans for repayment of the first instalment of the loan from them but recovers on the following 31st March. The Reserve Bank of India should examine its policy in this respect and allow the policy of recovering the first instalment after 12 months after the completion of the well or 24 months after the drawal of the first instalment of the loan, that will enable the farmers to complete the well-work in 12 months and in the remaining 12 months they can raise crops under well-irrigation and pay the first instalment out of the sale of these crops.

#### 4.2 Difficulties of Farmers in Obtaining Loans

The scheme of constructing new wells was first introduced in Maharashtra State in 1947 under the campaign of "Grow More Food". At that time it was implemented through the Agriculture Department of the State Government. The applications of well-taccavi loans were received by the District Development Board and the Executive Committees of the said Board used to sanction the well-taccavi loans and the admissible subsidy thereon. The disbursement of these loans was entrusted to the Revenue Authorities.

From 1958-59 to 1960-61, the business of well taccavi loans was partly routed through the land development banks and from 1961-62 onwards, looking to the achievements of the land development banks in advancing taccavi loans for new wells, the entire business of taccavi loans for new wells was transferred to the land development banks. The scheme was, therefore, generally known to the cultivators in the State even prior to its transfer to the land development banks. The Ahmednagar District Cooperative Land Development Bank after having commenced its working from February 1961, had undertaken the propaganda and 'Drive' for disbursement of Taccavi loans for new wells through it and its branches, throughout the district of Ahmednagar. Pamphlets regarding disbursement of Taccavi loans through the Bank were supplied to the Gram Sevaks to distribute them to the cultivators in the villages. The Gram Sevaks were also requested to announce the scheme in the villages by beat of drum. In this way, the scheme having been undertaken by the Bank was made popular. During the course of the Survey, it was observed that about 15 percent of the total sample borrowers came to know the scheme by way of propaganda through the distribution of pamphlets and by beat of drum; about 25 percent of the sample borrowers knew from the Gram Sevaks, Talathis and local leaders; 5 percent from the Directors and staff of the Bank, other Government and semi-Government servants, and about 55 percent sample borrowers replied that they knew the new scheme from the persons who had already obtained Taccavi loans for wells in their villages.

In the preceding section 4.1, a lengthy procedure in sanctioning a loan application of the farmer has been outlined in detail. A considerable delay caused due to this procedure, and the illiterate farmer had to face great amount of procedural difficulties by way of collecting several certificates and documents from different offices. Due to his ignorance and illiteracy, the farmer was quite vulnerable to corrupt practices followed by officials. Talathis of all the selected villages under the Survey, except one, were reported to be most uncooperative and indifferent in dealing with the farmers. Majority of the

sample borrowers reported that they had a lot of difficulties and troubles in getting the necessary documents as explained in the loan procedure, from the Talathis of the villages. In the first two meetings, Talathis generally avoided in giving the certificates under the pretext that the record was in the other village or that they had some important work to attend and hence, they had no time. In case, a Talathi is attached to a group of villages, the farmers had to make frequent visits to find him. In the third meeting, Talathi would generally convey to the farmer that he would not get the Taccavi loan for a well, giving some reasons that his small holding would not permit him to avail of the loan, or he had some Government dues to repay or the title to the land was not clear or he would direct him to approach the Revenue office for past mutation entries as that record he did not have. In this way, in three/four meetings in a couple of months, when a farmer would get annoyed, he would ultimately request the Talathi to accept his 'Pansupari' i.e. gratification and issue him the required documents. If the Talathi is influential man he would, in the first or second meeting, demand his gratification. The farmer would then return and enquire with the other persons who had obtained loans, regarding gratification amount they had paid to Talathi. He would again meet the Talathi and would request for a reduction in the amount of his gratification. Talathi would reply him, if he, at all, wanted loan, he should pay the desired gratification or go back. The farmer ultimately would pay that gratification and would get all the documents at a time. If the farmer had paid less than that desired, the Talathi would not issue all the documents to him at a time. The farmer would be required to approach him again and pay him the balance for the remaining certificates. The gratification amount of Talathi ranged from Rs. 10/- to Rs. 100/- depending on the degree of illiteracy and connections of the applicant with the local leaders of the village.

Sometimes, the mutation entries which were not available with the Talathi, would have to be obtained from the Taluka Revenue Office. The Gram Sevak or Talathi would take the farmer to the Taluka Revenue Office at a time when he (Gram Sevak or Talathi) had some work there, at the expense of the farmer. In the Revenue Office, the clerk in charge of this record, would, in the first instance, refuse to answer, or would answer in an angry mood that he had no time as he was busy with some important work, and would ask him to come some other day. For this also, the farmers had to make 2-3 trips to the Taluka Revenue Office. If the Gram Sevak or Talathi had some common understanding (it was usually) with the clerk of the Revenue Office, he would ask the farmer to give some gratification, which was from Rs. 5 to Rs. 10. Some farmers, thinking that anyhow they would have to incur expenses for transport to visit again, preferred to pay the gratification in the first visit itself.

As regards Gram Sevaks, the sample farmers indicated that they were not as rude as Talathis. The farmers generally being illiterate, approached the Gram Sevaks (village level workers) to help them to fill up the loan application forms obtained from the branches of the Land Development Bank on payment of Re. 1 (The loan application form till 1964-65 was supplied through Gram Sevaks free of cost). It was reported that the loan application forms were



generally filled by the Gram Sevaks, sometimes by Talathis and teachers. The amount of demand for loan was not at the option of the farmer, but the Gram Sevak put the figures in the loan application in the light of the formula for demanding loan and without taking into consideration the probable cost that would be required for the proposed well. The Gram Sevak, in the beginning, would tell the farmer that he would be eligible for the amount of loan which would be less than the amount that could be arrived at as per the formula. The farmer having no knowledge of the formula would request the Gram Sevak to try some way or the other to increase the amount of loan as the one proposed by him would not be adequate to meet the requirements of the proposed well. To increase the amount of loan, the farmer would offer or promise to pay some gratification to him on receipt of the loan, who would then bring the amount of demand for loan to the level under the formula. If the Gram Sevak was an influential man, he would himself demand his gratification ranging from Rs. 15 to Rs. 50. Gram Sevak being the Receiving Officer, would also act as Enquiry Officer on behalf of the Extension Officer, and would make inquiry of the loan application with regard to the value of the lands, income, repaying capacity of the applicant and would also recommend the amount of demand for loan. The farmer, thinking that Gram Sevak was the authority for recommendation of loan application, paid him his gratification.

As regards 'No Overdue Certificate' from the Primary Society, the farmers from the three villages reported that the Secretaries of the societies had issued the said certificates on payment of Rs. 2 to Rs. 5 as gratification.

After having filled up the loan application form, the Gram Sevak would take the applicant to the Taluka Block Development Office at his (applicant's) expenses, and hand over the loan application in the office. After a fortnight or a month the Gram Sevak and the applicant would visit the Branch of the Land Development Bank located at the taluka headquarters as to enquire whether his loan application was received there; at the expense of the applicant. When learnt that the same was not received, then they would visit the Taluka Block Development Office. There also the farmers experienced the same difficulties as they had in the Revenue Office. The farmers indicated that they had to offer gratification from Rs. 2 to Rs. 10 to expedite their applications.

At the Branches of the Land Development Bank, the writer observed that the treatment of the Branch staff to the farmers was not quite cordial. Sometimes, the farmers were asked to come some other day for receiving the loan instalments, giving the reasons that they (Branch staff) were busy with some important office work or that the Inspector was away or the funds were short. Only two farmers reported that they had to offer gratification of Rs. 25/- to recommend their cases for second instalment to the members of the Branch staff, who had visited the spots for the verification of utilization of the first instalment of loan.

Till 1964-65, the verification work of utilization of the first instalment of loan was with the Gram Sevaks or the Extension Officers, but from 1965-66 onwards, this work has been assigned to the Bank Inspectors/Supervisors.



The sample farmers who had obtained loans prior to 1965-66 reported that the Gram Sevaks used to demand gratification of Rs. 25/- to Rs. 50/- to recommend the cases for disbursement of the second instalment of loan, and particularly when the work of the first instalment of loan was not done as per the specifications given in the loan applications.

The writer himself observed that four farmers who wanted the second instalment of loans, had visited the Branches of the Bank to request the Bank Inspectors/Supervisors to visit their spots for verification. They told the farmers that they were busy in some other important office works, they would not be, therefore, available for at least 15 days. One of these farmers said that last time, the supervisor had promised to visit his spot for verification but he did not turn up. He went to the two villages to meet the supervisor on learning at the branch that the supervisor had gone to those villages. When he could not find him there also, he returned to the Branch next day when the writer was there in the Branch office. After having taken so much pains, the farmer expected that the supervisor (who was then present) should accompany him to his village for spot verification the very same day. But when the supervisor told him that he would come after 15 days, the farmer replied him that he had to make the payment to the contractor who had stopped the work and was pressing for payment, and, hence, he wanted the amount of the second instalment early. When the supervisor did not agree to accompany him, the farmer went back with a promise that the supervisor would come on the appointed day.

It was learnt at one of the Branches of the Bank that one of the Directors of the Bank helped the farmers in getting their loan applications sanctioned early. He would take the farmers to the Branch and instruct the Branch staff to get their loan applications from the Block Development Office if not received, and forward them to the head office of the Bank quickly. He, being the Director of the Bank, would see that these applications were sanctioned early. On receipt of the loan, the farmers were supposed to take the cash to this Director, residing in the same town, and then the Director would take out his commission of 2 percent of the loan received and return the balance to the farmers.

There was also the practice of approaching the local leaders of the village who helped the farmers in obtaining loans, on the understanding that they would pay gratification to them. These local leaders who were village Patils, Chairmen of the Society, Presidents of Gram Panchayats or some political leaders, arranged to obtain the necessary documents. The borrowers of one of the villages, reported that they had to pay substantial amounts as gratification to the village Patil who had joined hands with the village Gram Sevak-cum-Talathi,\* to the extent of Rs. 250/- per case - Rs. 50/- at the time of making an application, Rs. 100/- at the time of disbursement of first instalment and remaining Rs. 100/- at the time of disbursement of second instalment of loans. They were also required to pay the bus charges of the Patil and Gram Sevak from their

---

\* During 1964-65, the jobs of the Talathi and Gram-sevak were assigned to one person, but again from 1965-66, these two posts were separated and assigned to two different persons.

village to Taluka headquarters when they visited the Block Development Office and the Branch of the Bank; and they had to entertain these two persons with refreshment every time. They had to make at least 5/6 such trips - one for obtaining Mutation Entries, from the Revenue Office and handing over the loan applications in the Block Development Office; second visit to see whether the applications were sent to the Branch of the Bank; third for executing the mortgage deeds and obtaining the first instalment of loans; fourth visit to request the Bank Inspector to visit the spot for verification of first instalment of loan, and the fifth visit to obtain the second instalment of loans. There would be, sometimes, one more visit in case the Block Development Office had not forwarded the loan application to the Branch of the Bank when they visited first time; or if the Patil or Gram Sevak had any work to attend at the Taluka headquarters, he would ask the farmer that they would go to the Branch of the Bank to enquire whether the application was received back from its head office duly sanctioned. The expenses per trip incurred were about Rs. 10/-. At the time of disbursement of loan, the farmer would hand over the cash to the Patil or Gram Sevak. He would take out his gratification as decided and return the balance to the farmer. No farmer from the village was supposed to visit the Branch or any office independently. The total to and fro charges for 6 trips were about Rs. 60/- per case. In this village the farmers were also required to pay Rs. 5/- extra to the Secretary of the village society to issue 'no-overdue certificate'. Over and above this, every borrower was required to stand three special dinner parties - one on receipt of first instalment of loan and on starting the digging work, second party on striking water in the well and the third on starting the construction work of the well. Persons attending these special parties included the village Patil, Gram Sevak, Chairman and Secretary of the Society, and President of the Gram Panchayat. The items of food served included chicken, chapattis etc. and the last item used to be country-liquor. Expenses per dinner party averaged to Rs. 30/-. The total expenses for three parties amounted to Rs. 90/-. The total expenses per borrower from this village from the time of application till the completion of the well are summarised below:-

	Rs.
(i) At the time of application	50
(ii) At the time of 1st instalment	100
(iii) At the time of 2nd instalment	100
(iv) Transport and refreshment charges	60
(v) No-overdue certificate	5
(vi) Three dinner parties	90
Total	<u>405</u>

It was generally experienced by the writer that the farmers were very reserved and afraid in giving the correct information about the gratification paid to the various officials during the course of obtaining loans, thinking that this person (writer) whom they did not know earlier, might leak out the information and then Talathis, Gram Sevaks, Bank staff and local leaders with whom they would have to come in contact frequently, would start troubling them. After a lot of persuasion, taking them into confidence and making halts at their hutments on the farms during nights, some of the farmers disclosed the correct

information about the prevalent corrupt practices on the promise that the information given by them would not be leaked out. The village is located in the interior and the farmers are generally backward and under the domination of local leaders. This was the extreme picture seen during the Survey.

Another extreme picture having the lowest expenses incurred by the farmers in obtaining loans was from another village, where the Talathi was the local person, having some landed property in the village. He was once in the Army. The borrowers of this village reported that the Talathi took only Rs. 5/- per case, towards the prescribed fee at the rate of 13 paise per extract. As per one of the conditions governing sanction of loan, the applicants were required to obtain Extracts from land records for the last 12 years. If any farmer held lands bearing different survey numbers, then for each survey number the Extracts from land records for 12 years had to be obtained. The prescribed fee, thus, ranged from Rs. 2 to Rs. 5. The Gram Sevak attached to the village was also reported to have not demanded any gratification except that the farmers paid his transport and refreshment charges. But in the Revenue office and the Block Development Office, they had to pay Rs. 5/- in each office. The total expenses amounted to Rs. 45/- per case as under:-

(i) Fee for obtaining extracts	Rs. 5/-
(ii) Transport and Refreshment charges (for 6 trips)	Rs.30/-
(iii) Gratification paid	Rs.10/-
Total	<u>Rs.45/-</u>

The Branches of the Ahmednagar District Cooperative Land Development Bank issued cheques to the farmers on sanction of their loan applications, drawn on the local Branches of the Ahmednagar District Central Cooperative Bank. The farmers took them to these Branches for payment. The proceeds of cheques were paid to the farmers on their identification by one of the account holders of the Branches. Since the farmers did not hold any accounts with the Branches they had to request some persons holding accounts with the Branches for this purpose. The farmers of one village reported that they had to pay Rs. 2/- per cheque to a pleader for identifying them to the Branch of the Central Cooperative Bank.

It was also observed that the farmers, having close relations and connections with the Talathis, Gram Sevaks, officials of the Bank, Revenue and Block Development offices, the Zilla Parishad and the local leaders, were not required to pay any gratification to any officials. About 20 farmers reported that they knew some of the officials who helped them to obtain loans from the Bank without the payment of any gratification, except the transport and refreshment charges.

The difficulties experienced by the farmers in obtaining loans have been explained in detail. A considerable delay was caused due to the lengthy procedure, and the illiterate farmers had to face great amount of procedural difficulties by way of collecting several certificates and documents from different offices. Due to their ignorance and illiteracy, the farmers were quite vulnerable to the corrupt practices followed by officials and

non-officials. They were required to pay from a minimum of Rs. 15/- to a maximum of Rs. 250/- as gratification, plus the transport and refreshment charges ranging from Rs. 30/- to Rs. 155/- for getting their certificates readily available and for early sanction of their loan applications. The total expenses including the gratification were from Rs. 45/- to Rs. 405/-.

#### 4.3 Period Required for sanctioning Loan Applications

In the foregoing Section 4.2, the difficulties encountered by the farmers in obtaining the necessary documents and certificates to be attached with the loan applications have been described in detail. The Gram Sevaks who were Receiving Officers, accepted the loan applications only when all the necessary certificates were attached to the applications. To obtain these certificates from the Talathis, and Revenue Office, the farmers required at least from two to four months or even more in some cases. As explained earlier, the Talathis did not issue the certificates even when the farmers visited two to three times and on agreeing to his 'Pan-Supari' (gratification), they issued the certificates. The farmers being hard-pressed for money, did not pay Talathis their gratification in the first meeting, thinking that they would show some sympathy and waive this condition, but when seen, they were adamant in their attitude, the farmers had to yield to them in offering the gratification. Hence, the time taken by the Talathis in issuing certificates, was one and a half months and above. And for obtaining mutation entries of the past from the Taluka Revenue Office, the period required varied from 15 days to a month or even more depending on the willingness of the farmers to pay the gratification to the clerk of the Revenue Office.

About 30 percent of the borrowers could obtain their certificates within two months; about 40 percent within two to four months, about 20 percent within four to six months and 10 percent obtained their certificates after six months. In about 8 cases, the certificates were received after a year. The red-tapism exercised by the Talathis and the Revenue Office, affected a majority of the borrowers that could be seen from the period they took to issue the certificates. To reduce the red-tapism and the delay in obtaining the certificates, it can be suggested that the Bank should be authorized to call the necessary certificates required by the borrowers from the various offices i.e. Talathi, Revenue Office and Cooperative Society. The above suggestion would not require the Bank to appoint any additional staff for this. If the efficiency of the existing staff at the Branches of the Bank is enhanced, the suggestion could easily be implemented. In this respect, the District Collector's cooperation appears necessary. He should issue the orders to the Revenue Officers to extend full cooperation to the Bank Officials in issuing the necessary certificates for loan applications.

The Receiving Officers i.e. Gram Sevaks, on having checked that the applications were filled in properly and all the necessary certificates were attached to the applications, would accept them and put his initials and the date of receipt of applications. The dates of applications and the dates of their receipts by the Gram Sevaks in most of the cases were found to be the same as the loan

applications were filled in by them. The following table 4.1 would reveal the period required from the date of receipt of applications till the disbursement of the first instalment of the loans sanctioned.

Table 4.1: Showing the period required for sanction of loans (i.e. the period between the date of application and the date of actual receipt of the first instalment of loans) in respect of sample wells

Period required	No. of sample wells	Percent of total
Within and upto 4 months	123	59.13
4.1 to 8.0 months	51	24.52
8.1 to 12.0 months	22	10.58
Beyond 12 months	12	5.77
<b>Total</b>	<b>208</b>	<b>100.00</b>
Dates of applications not available	69	
<b>Total No. of Sample Wells</b>	<b>277</b>	

The table reveals that 59% of the loan applications were sanctioned within four months; about 25% required the period from 4 months to 8 months. Twelve applications were sanctioned after a year. Although the Rule 93(15) of the Rules of the Maharashtra Cooperative Societies Act 1960, laid down the maximum period of four months for disposal of loan applications, the period taken to sanction 41 per cent of the applications exceeded four months. In respect of 69 loan applications, the dates of applications were not recorded in the loan applications, nor were the dates put by the Receiving Officers under their signatures.

The Rule 93(6) of the Rules of the Maharashtra Cooperative Societies Act, 1960 states that after an application for loan has been received, the Receiving Officer shall verify whether it contains all the necessary particulars and is accompanied by the necessary documents and forward it to the Public Enquiry Officer (the Block Development Officer or the Extension Officer) to give public notice of the application under Section 118 of the above Act. The Public Enquiry Officer shall give at least eight days' public notice, calling upon all persons interested to present their objections to the loan, if any. If no objection is received, the Public Enquiry Officer, under Rule 93(10), is required to forward the application within two days of their disposal to the Enquiry Officer, who is generally the Extension Officer. He shall make inquiry by actually visiting the land in which the well is to be sunk and the lands offered as security. The Enquiry Officer, under Rule 93(ii), is required to complete his inquiry within 15 days from the date of the receipt of the application by him. As per the above procedure, the Receiving Officer, belonging to the same department, i.e. the Block Development Office, should require a maximum period of one month for the disposal of loan application to the Branch of the Land Development Bank. Although the

Rule 93(15) allowed a maximum period of 4 months for final disposal of the loan application i.e. two months for the Block Development Office and another two months for the Land Development Bank (Under Rule 93(14), the Bank is required to pass final orders within 30 days, and convey the decision within 7 days), the Block Development Office and the Bank as well, have both taken a period of more than two months, as could be seen from Table 4.2

Table 4.2: Showing period taken by Block Development Office to recommend loan applications and by the Bank to sanction loan applications in respect of Sample Wells

Period taken	Block Development Office		Land Development Bank	
	No. of applications	Percent to total	No. of applications	Percent to total
Within and upto 2 months	138	70.05	137	69.54
2.1 to 4.0 months	31	15.74	27	13.71
4.1 to 8.0 months	17	8.63	30	15.23
Beyond 8 months	11	5.58	3	1.52
<b>Total</b>	<b>197</b>	<b>100.00</b>	<b>197</b>	<b>100.00</b>
Dates not available	80		80	
<b>Total No. of applications</b>	<b>277</b>		<b>277</b>	

About 30 percent of the loan applications were disposed off; by the Block Development Office to the Land Development Bank after two months and the Bank also finally sanctioned and disbursed the first instalment of loan after two months in respect of equal number of loan applications. The dates of receipt and of forwarding the loan applications by the Land Development Bank and the Block Development Office respectively were not available in as much as 80 loan applications. In fact, they should have been put in the loan applications as required under Rule 93 of the Rules of the Maharashtra Cooperative Societies Act.

The loan applications recommended by the Block Development Office, were received by the Branches of the Bank. The Inspector/Supervisor of the Branch further scrutinized the loan applications. If there were any deficiencies, the Branch got them completed or returned to the Block Development Office for completion. For scrutiny of loan applications, the Branch would, at the most, require a week and they were forwarded to the Head Office of the Bank. The Bank conducted monthly meetings of its Loan Committee for consideration of these applications. If the applications were received just a few days before

holding the meeting, then a week or two would be sufficient to finally pass the orders. The loan papers along with their sanction were returned to the Branches and they in turn, communicated the decisions to the applicants and disbursed the first instalment of loan. For the above entire procedure, the Bank would take not more than 1-1/2 to 2 months. It was observed that in respect of 20 percent of the loan applications, sanction by the Bank was delayed due to its policy that no disbursement of first instalment of loan should be made in the rainy season, i.e. from July to October as the well-work can not be undertaken in these months due to rains; and in the remaining 10 percent of loan applications, delay occurred on account of deficiencies in the loan applications which were required to be got completed or returned to the Block Development Office for completion.

It was observed that the Block Development Office was not so particular in getting the deficiencies in the loan applications completed and hence the Bank had to get them completed. It was generally reported by the farmers that unless they went and requested the clerks of the Block Development Office, the applications would lie on the table. As observed earlier, the clerks of the Block Development Office expected some gratification from the applicants and hence they kept the applications pending till the farmers went and paid their gratification. This practice appeared to be the cause for the delay in the Block Development Office, and the Bank were required to make reports to the Registrar of Cooperative Societies, in case, applications were delayed more than the prescribed time, stating thereunder the reasons thereof, and act in accordance with such directions as might be issued to them by the Registrar, but this was not followed by them, nor did the Cooperative Department care to endorse the same.

#### 4.4 Period required for Second Instalment of Loan

The period required to obtain second instalment of loan in respect of sample wells is given in Table 4.3.

Table 4.3: Showing period required to obtain second instalment of loan in respect of Sample Wells (i.e. period between first and second instalments)

Period required	No. of sample wells	Percent of total
Less than and upto 3 months	103	39.17
3.1 to 6.0 months	107	40.68
6.1 to 12.0 months	46	17.49
Beyond 12 months	7	2.66
<b>Total</b>	<b>263</b>	<b>100.00</b>
II Instalment not paid	14	
<b>Total No. of sample wells</b>	<b>277</b>	

∟ In fact, under Rule 93, the Block Development Office

It is observed that the second instalment was received within three months in respect of 103 out of 263 sample wells i.e. 39 percent, and in respect of 107 sample wells i.e. 41 percent between 3 and 6 months. In the case of 7 sample wells, it was received after a year. The applicants are required to mention in their applications, the amount of well-work to be done with the amount of first instalment of loan. The farmers having no knowledge of the strata of their soils, requested the Gram Sevaks to put the reasonable depth and width, and construction of the proposed wells in their applications. If the well-work was not done according to the specifications given in the applications, the Verifying Officers would ask the farmers to carry out the remaining work and then only, they would get the second instalment of the loan. If the farmers had already spent the amount of the first instalment of loan, they would keep the work pending unless the second instalment was received. It would be relevant to state that the Verifying Officer, without going into the specifications of the well-work, given in the loan applications, should see that the amount of the first instalment was utilized for the well-work and if so, he should recommend for disbursement of the second instalment. As reported earlier, till 1964-65, Gram Sevaks on behalf of the Extension Officers, used to verify the utilization of the first instalment of loan and often granted gratification irrespective of whether the work was done according to specifications, or not/whether the amount of the first instalment was utilized or not. There were several cases (as explained in Chapter V) where the second instalment was paid even when the amount of the first instalment of the loan was not fully utilized. About 50 percent of the sample farmers reported that they had to pay gratification of Rs. 10 to Rs. 50 to the Verifying Officers; about 20 percent reported that they stood dinner parties to them, and the remaining 30 percent reported that they paid nothing to the Verifying Officers. Another reason for delay in the disbursement of the second instalment of loan was that in majority of the cases the farmers utilized a part of the amount of the first instalment of loan for purposes other than the well-work. When asked about the amount spent for the work, everyone would say double of the amount received from the Bank (as was experienced by the writer himself as regard to cost of well). The Verifying Officer who visited the villages for verification of the loans, could estimate the probable amount that might have been spent on the work, by way of general experience. Hence, he would not recommend the second instalment in cases when the amount of the first instalment was not fully utilized.

The period required for the well-work to be done with the amount of the first instalment of loan depended on various factors viz. (i) amount of first instalment received, (ii) strata of the soil, (iii) diameter of the well and (iv) the strength of the labour employed. But generally it would be ranging from about one month to three months, of which, working days would be from 3 weeks to 2 months. In the normal course, it would not exceed 3 months except for factors beyond control viz. strata of the soil consisting of exceptionally hard rock and rains.

Reasons for delay in the release of the second instalment of loans were mainly three, of which two have been explained earlier i.e. the amount of the first



instalment not fully utilized by the borrowers and expectation of gratification by the Verifying Officer. The third reason was that most of the loans were sanctioned and issued by the Bank during the period of May and June being the year-end months with a view to reaching the targets fixed for the year. The farmers who received the first instalment of loans could not undertake sinking of wells thinking that the well-work if started in July would be help up due to monsoon and hence they would start the work sometime from October onwards.

In respect of 14 sample wells, the second instalment of loans was not paid for reasons that the first instalment of loan in the case of 9 sample wells, was misutilized, in the case of two, due to the carelessness of the borrowers, and in one case, the second instalment of loan was not availed of as the work was left out due to hard rock. In the case of two sample wells, the work of the first instalment of loans was in progress.

#### 4.5 Quantum of Loan sanctioned for Sample Wells

Long-term loans sanctioned for all sample wells amounted to Rs. 6,70,300. The year-wise sanction of these loans is given in Table 4.4.

Table 4.4: Showing year-wise sanction of loans for all sample wells during 1960-61 to 1965-66

Year	No. of sample wells	Amount of loan sanctioned Rs.	Percent of total loan	Average loan per sample well Rs.
1960-61	3	6,850	1.02	2283
1961-62	72	1,53,450	22.89	2131
1962-63	43	99,600	14.87	2316
1963-64	68	1,72,800	25.78	2541
1964-65	45	1,24,300	18.54	2762
1965-66	46	1,13,300	16.90	2463
<b>Total of 5 years</b>	<b>277</b>	<b>6,70,300</b>	<b>100.00</b>	<b>2420</b>
<b>II Instalment not paid</b>	<b>14</b> 2 Additional	<b>17,400</b>	-	-
<b>Total loan issued</b>		<b>6,52,900</b>		

The number of loans in 1960-61 is very small. Hence, if we see the figures for 1961-66, it is observed that from 1961-62 onwards there has been a gradual rise in the average loan per sample well but in 1965-66 the average loan per sample well came down to Rs. 2463 from Rs. 2762 in the preceding year. Financial stringency faced by the Bank in 1965-66 was reported to be the reason for the fall in the average loan in that year. The average loan per sample well during 1960-61 to 1965-66 was Rs. 2420.

In respect of 14 sample wells, the second instalment of loan was not issued, (The reasons for the same have already been given in the preceding section 4.4) and in the case of two sample wells, the second instalment of the additional loans also was not issued due to misutilisation of the first instalments. If the loans already issued were inadequate for the well-work, farmers made applications to the Bank for additional loans for completing the incomplete work, provided, that they had adequate additional security to offer to the Bank, and subject to the maximum limit of Rs. 4000/- (including additional loan). In respect of 15 sample wells, such additional loans were sanctioned by the Bank.

The Bank sanctioned loans to the farmers for sinking of new wells as per the formula laid down under the well scheme i.e. to the extent of 50 percent of the cost of the proposed well and the value of land offered in mortgage as security. Lands were valued at 300 times of their assessments. Probable cost of a well was worked out on the basis of the demand for loan and the proposed work as given in the loan application.

The holding-wise and loan size-wise classification of loans sanctioned and issued in respect of sample wells is given in Table 4.5

From Table 4.5, it will be seen that the farmers whose holding was in between 10 acres and 20 acres, were benefitted more. Of the total loan sanctioned, 37 percent was received by the farmers under this group. Farmers whose holding ranged from 20 to 30 acres were next to the previous group, who received more loans i.e. 23 percent. Farmers holding lands upto 10 acres were less benefitted in terms of quantum of loans received. Only nine and a half percent of the total loan sanctioned was made available to this group due to inadequate landed security to offer to the Bank in mortgage. The average loan sanctioned per well was the lowest i.e. Rs. 1732/- in the case of group No. 1 holding lands upto 10 acres and the highest i.e. Rs. 2808/- in the case of group No. 5 holding lands above 40 acres.

Of the total loan sanctioned, 62.31 percent belonged to the size-group of Rs. 2001 and Rs. 3000/-, 18.24 percent and 17.14 percent to the size groups of Rs.1001 to Rs.2000/- and Rs. 3000/- to Rs. 4000/- respectively. The average loan sanctioned per well in the size-group of Rs. 3001 to Rs. 4000, was Rs. 3706/- and Rs. 969/- in size-group of loan upto Rs. 1000/-.

Out of the total loan of Rs. 6,70,300 sanctioned for 277 sample wells, Rs.6,52,900 was issued and Rs. 17,400/- being the amount of the second instalment of loan of 16 wells could not be issued due to misutilization of the first instalment, carelessness of the borrowers and due to progress of the work of the first instalment.

#### 4.6 Deductions from Loans

The Ahmednagar District Cooperative Land Development Bank made deductions from the loans issued to the farmers towards various purposes. The total loans issued for all the 277 sample wells stood at Rs. 6,52,900, from which the deductions made were Rs. 80,785 and the net amount of loans disbursed was Rs. 5,72,115/-. The percentage of the

**Table 4.5:** Two way classification of loans in respect of all sample wells  
 Amt. = Amount in Rs.                      No. = Number of sample wells

Gr- oup num- ber	Size of holding acres	Loan upto Rs. 1000		Loans from Rs.1001 to Rs.2000		Loans from Rs.2001 to Rs.3000		Loans from Rs.3001 to Rs.4000		Total		Percent of total loans sanc- tioned	Average loan per sample well Rs.
		No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.		
1	Upto 10.0	8	7700	20	32200	7	17600	2	6600	37	64100	9.56	1732
2	10.1-20.0	7	6800	33	57350	55	142700	11	41400	106	248250	37.05	2342
3	20.1-30.0	1	1000	10	18400	43	113750	6	22200	60	155350	23.17	2589
4	30.1-40.0	-	-	5	8800	25	65600	5	18700	35	93100	13.89	2660
5	Above 40.0	-	-	3	5500	29	78000	7	26000	39	109500	16.33	2808
Total of 5 groups		16	15500	71	122250	159	417650	31	114900	277	670300	100.00	2420
II instalment not paid		2	-1000	2	-1850	10	-13550	Addl. 2	-1000	14 2 Addl.	-17400	-	-
Loan issued		16	14500	71	120400	159	404100	31	113900	277	652900	-	-
Percent of total loan sanctioned		-	2.31	-	18.24	-	62.31	-	17.14	-	100.00	-	-
Loan sanctioned per well		-	969	-	1722	-	2627	-	3706	-	2420	-	-

deductions to the total loans issued was 12.37 percent which appears to be quite high. The purposes for which the deductions were made from the loans are given in Table 4.6.

Table 4.6: Showing purpose-wise deductions from the loans issued for sample wells

Purpose	Amount deducted Rs.	Percentage of total deductions
1. Shares of Ahmednagar Land Development Bank	57,350	70.99
2. Rural Debentures of the State Land Development Bank	13,150	16.28
3. Societies dues	3,460	4.28
4. Land Valuation Fee	2,918	3.61
5. Building Fund	1,330	1.65
6. Printing and Stationery charges	677	0.84
7. Search Fee	596	0.74
8. 'B' Class Membership of the Bank	413	0.51
9. Legal Fee	303	0.37
10. Entrance Fee	298	0.37
11. Writing Charges	290	0.36
<b>Total Deductions</b>	<b>80,785</b>	<b>100.00</b>

Seventy-one percent of the deductions were made towards the purchase of shares of the Ahmednagar District Cooperative Land Development Bank, 16 percent towards investment in Rural Debentures floated by the Maharashtra State Cooperative Land Development Bank, about 4 percent towards the recovery of the dues of the primary societies, and about another 4 percent towards land valuation fee. The Bank also deducted 1.65 percent of deductions towards its Building Fund. Minor deductions were made towards printing and stationery charges, search fee, 'B' class membership of the Bank, legal fee, entrance fee and writing charges.

The Bank used to deduct at 5 percent of the loan issued towards the purchase of its shares till 1961-62 and from 1962-63, it has raised the rate from 5 percent to 10 percent. The entrance fee at Re. 1 and printing and stationery at Rs. 3 per case were collected. 'B' class membership was collected at one rupee per member of the family. The legal fee which was collected at Rs. 3-1/2 per case, has been stopped from April 1963. The land

valuation fee which was collected at Rs. 7-1/2 per case, has been raised to Rs. 11/- from April 1963. The writing charges were collected at one rupee per thousand of loan or part thereof. The search fee for obtaining incumbrance certificate from the sub-registrar was collected from April 1964 at Rs. 6 per case.

There was no general rule of collecting Rs. 100/- from the loans towards investment in the rural debentures, but the same was collected from the borrowers who did not know about it and hence could not oppose to the deduction. The farmers who did not have their own funds for sinking of wells, approached the Bank for a loan, and hence the Bank should not have insisted on purchase of rural debentures, which were supposed to be purchased by such farmers who had surplus income.

The Bank has started collecting Rs. 10/- compulsorily from the loans issued, as donation to its Building Fund from May 1964.

There was also the practice of recovering the dues of the primary society in the beginning. Unless the farmer cleared off his dues of the primary society, 'no-due certificate' was not issued by it. As the farmer, sometimes, had no money to clear off the society's dues, he requested the Bank to pay the same to the society from the loan sanctioned to him. This practice was discontinued since 1962.

As a matter of fact, the Bank should not collect Rs. 10/- from the loans, towards its Building Fund as the farmers are always hard pressed for money.

As regards rural debentures, the Bank should not put the burden on the farmers who come to it for loans. Investment in rural debentures from the loans appears paradoxical and, hence, the practice of deducting Rs. 100/- from loans needs to be discontinued. The land valuation fee at Rs. 11/- per case appears to be very high. Since the land valuation is the function of the Bank, the fee towards valuation of lands should not be collected from the farmers from their loans.

Deduction at 10 percent of the loan towards purchase of Bank's shares also appears to be quite a heavy burden on the farmers. They were also required to pay interest on such deductions at usual rate of interest. The borrowers have to face a double loss of (i) not getting any benefits of his share capital (no dividends were paid so far) and (ii) increased burden of interest charges. The Bank, no doubt, tries to increase its borrowing capacity by increasing its share capital, but it does so only at the expense of poor farmers. While erecting the superstructure of increased credit (from the State Cooperative Land Development Bank), the primary bank overlooks the amount of economic damage done to its marginal peasants. It may, therefore, be suggested that the weaker section of the peasantry i.e. the peasants having a land revenue below Rs. 20/- should be allowed to contribute to the share capital at 5 percent of loans, and from the rest, share capital at 10 percent of loans may be deducted.

#### 4.7 Subsidy Granted for Wells by the Government.

Out of 277 sample wells, the Government provisionally sanctioned subsidy of Rs. 43,300 in respect of 88 sample

wells till 30-6-1966 except the Ahmednagar taluka where it was upto 30-6-1967. Table 4.7 gives the subsidy granted in respect of sample wells.

In respect of 84 sample wells, a subsidy of Rs. 500 each was granted, in the case of two wells, a subsidy of Rs. 350/- each was granted and in the case of the remaining two wells, a subsidy of Rs. 300 each was granted. It will be observed from the table that the subsidy received by the farmers in the lowest group No.1 amounted to about 30 percent of the loan sanctioned for them and 56 percent of them received the subsidy; while the subsidy received by the farmers in loan-groups from Rs. 2001 to Rs. 3000 and Rs. 3001 to Rs. 4000, amounted to five and four percent of the total loan sanctioned for them respectively. The subsidy granted was equivalent to 25 percent of the actual cost of wells subject to the maximum of Rs. 500/- per well. As reported by the Extension Officers in their reports of verification of final well-work, the subsidy was not granted in respect of many sample wells due to reasons that (i) the well-work was not completed, (ii) wells were not in working conditions, (iii) minimum 3 acres of land was not brought under irrigation and (iv) Land holdings exceeded 32 acres. The farmers holding more than 32 acres of land were not eligible for subsidy.

**Table 4.7:** Showing the number of sample wells and the amount of subsidy granted for them according to size of loan.

Amt. = Amount in Rs.      No. = Number of sample wells

Gr- oup num- ber	Size of loan Rs.	Total num- ber of sam- ple wells	Loan sanc- tioned Rs.	Subsidy granted in								Percen- tage of wells granted subsidy to total wells	Percen- tage of amount of sub- sidy to loan sanc- tioned		
				1963-64		1964-65		1965-66		1966-67				Total	
				No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.			No.	Amt.
1	Upto Rs. 1000	16	15500	1	500	4	2000	4	2000	-	-	9	4500	56	30
2	1001-2000	71	122250	1	500	9	4200	15	7100	1	500	26	12300	37	10
3	2001-3000	159	417650	-	-	5	2500	34	17000	4	2000	43	21500	27	5
4	3001-4000	31	114900	-	-	1	500	8	4000	1	500	10	5000	32	4
Total of 4 groups		277	670300	2	1000	19	9200	61	30100	6	3000	88	43300	32	6

UTILIZATION OF LONG TERM FINANCE FOR SAMPLE WELLS

This chapter is devoted to study the utilization of long-term finance for new wells, which will deal with the selection of sites for wells, period required for sinking of wells, categorisation of wells into working wells, wells that have gone dry or could not strike water, incomplete wells due to shortage of funds, incomplete wells due to misutilization of loans, wells whose work was in progress and comparative study of all categories of wells. Each category of wells would deal with the amount of loan disbursed, cost of digging, construction and associated cost, additional amount spent for wells. Sources of additional amount, cost of family labour, amount of loan consumed against family labour, amount of loan misutilized if any, purposes for which loan was misutilized, additional acreage that can be brought under irrigation, recovery and overdue position and source of recovery of loan.

5.1 Selection of Sites for Wells

Selection of sites for wells was a matter of individual's beliefs and to some extent the natural situation of lands. Some believed in the sites where the subsoil water was forecast by the 'Panadi' (subsoil water finder); some believed in the places where certain herbs and shrubs existed. Some selected the sites close to the Nalas (brooks), or old ditches where water usually accumulated, or according to the level of lands, or near the existing wells.

In respect of sample wells, sites were selected as indicated in Table 5.1.

It would be observed that majority of the sample borrowers believed in the foretelling of Panadis and sunk the wells on the sites indicated by them. There is an old belief that certain shrubs and herbs like Saundad (Prosopis spicigera Linn), Vasan vail (Coccus hirsutus), Apta (Bauhinia racemosa), Palas (Butea monsparma), Ruit (Calotropis gigantea), and Umber (Ficus glomerata), whose roots penetrate deep into the soil and reach the subsoil water, are indicators of the possibility of subsoil water flowing in the subsoil beneath them. Out of 273 wells, 61 were sunk at the places where above shrubs and plants existed. Among the above shrubs and herbs, Saundad (Plate No. 1) was very popular. Out of these 61 wells, 45 were sunk at the places where Saundad existed. Twenty-nine wells were dug close to the brooks. Fourteen wells were sunk at the existing ditches where rain-fall water accumulated and another 14 were dug having regard to the level of lands i.e. at the lower level of lands and possibility of bringing some acreage under irrigation by natural flow. The above-said five ways of selecting sites for wells were more popular. Panadis on indicating the sites were paid from Rs. 5/- to Rs. 10/- in the first instance; and if the water was struck in the well, he was again presented with clothes like turban, shirt and 'Dhoti' costing about Rs. 25 to Rs. 50 and a cash of Rs. 5 to Rs. 10.

Out of 277 sample wells, no work was done in respect of 4 wells, and the loan received was completely misutilized.



**Table 5.1:** Showing different ways of selecting the sites in respect of sample wells  
 Figures indicate No. of wells

How selected the site	No. of wells	Per- cent of to- tal	Water could not be struck as the work remained incomplete due to				Wells in which water was struck	Wells in which water was not struck due to hard rock (or failed)	Percentage of wrong sites Col. 9x100 (8+9)
			Misuti- lization of loans	Short of funds	Work in progress	Total			
1	2	3	4	5	6	7	8	9	10
Subsoil water finder (Panadi)	144	53	10	4	1	15	114	15	11.63
Shrubs, herbs and plants	61	22	2	1	-	3	57	1	1.72
Near brooks (Nala)	29	11	-	-	-	-	29	-	-
Old ditches	14	5	1	-	-	1	13	-	-
Level of lands	14	5	1	1	-	2	10	2	16.67
Near existing wells	5	2	-	-	-	-	5	-	-
Wet places	3	1	-	-	-	-	3	-	-
Ant-hills	2	-	-	-	-	-	2	-	-
Children showed	1	-	-	-	-	-	1	-	-
<b>Total</b>	<b>273</b>	<b>100</b>	<b>14</b>	<b>6</b>	<b>1</b>	<b>21</b>	<b>234</b>	<b>18</b>	<b>7.14</b>
Work not done at all	4								
<b>Grand Total</b>	<b>277</b>								

Out of 273 sample wells, water in 21 wells could not be struck as their work remained incomplete due to the misutilization of loans (14 wells), shortage of funds (6 wells) and in the case of one well, work was in progress. In respect of 18 out of the remaining 252 (273-21) wells, water was not struck (i) due to existence of hard rock (11 wells) and (ii) even at the depth of 40 feet and beyond (7 wells). Incidence of failing to strike water in the wells was more at the sites indicated by the Panadis and in respect of sites selected on the basis of the levels. Only one well of the wells sunk at the places where shrubs and plants existed, could not strike water. The percentage of the wells in which water was not struck was about 7 percent on the whole.

## 5.2 Period required for Sinking of Wells

Period required for sinking of wells depends on various factors like availability of the second instalment of loan and of labour, strata of the soil, diameter of the wells and depth of water table. Where the second instalment of loan is not made available immediately after the completion of the work required to be done with the amount of the first instalment of loan, the cultivator-borrower has to stop the work for want of money. There is a general practice of giving the work of digging on a contract basis to the contractors. One contractor, sometimes, takes up contracts for more than one well at a time but the labour employed by him is engaged at only one place. On completing a piece work of one well, the contractor takes the labour to a second well whose owner constantly demands him to complete his work first. The work of the previous well is then held up. In this way, delay in completing the work of digging is caused when a contractor takes contract for more than one well. Where the soil through which the shaft of the well is to be sunk is loose, time required for digging would be less than the one where hard rock is encountered. Where the water lies deep, more time would be required. Bigger the diameter of the well the longer would be the period for digging. Where the work of digging is done by the paid labour or jointly with the members of the family under personal supervision, the work is, sometimes, held up during the busy season since the same labour would be engaged in the farm operations. When the work of digging is started, sometime, in May or June, the work to be done with the second instalment of loan would be held up due to rains. The period required for the work of digging in respect of sample wells excluding the 56 wells in whose cases loans were misutilized, is indicated in Table 5.2.

Four months may be treated as the normal period required for digging, of which one month may be lost for verification of the work of the first instalment of loan and for disbursement of the second instalment. From the table it is seen that the work of digging of 68 wells was completed in two months and of 77 wells in four months; that is to say, the digging work of 145 out of 224 wells i.e. 65 percent, was completed within four months. The digging work of 79 wells took more than four months for completion, of which the digging work of 20 wells was completed after a year. The work of these wells was delayed for reasons as under:-

Table 5.2: Showing period required for the work of digging in respect of Sample Wells

Period required	No. of wells	Percent of total
Within and upto two months	68	30.36
More than two months but less than four months	77	34.37
More than four months but less than six months	26	11.61
More than six months but less than twelve months	33	14.73
Above twelve months	20	8.93
Total	224	100.00
Cases of Misutilization	53	
Total Sample Wells	277	

<u>Reasons for delay</u>	<u>No. of wells</u>
Delay in receipt of II instalment of loan	32
Labour diverted to farm operations	16
Rains	15
Water-table deep and hard work	10
Shifting of labour by contractors	6
	<u>79</u>

The digging work of 32 wells was held up due to delay in receipt of the II instalment of loan.

Where the water-table is 15 to 20 feet deep and the strata is made up of porous soil, the digging work of a well with a diameter of 12 to 18 feet, and with the normal strength of labour from 8 to 10 persons, would be completed in a period of 20 to 25 working days; and if the soil is made up of hard rock, a well under the similar conditions would take about one and a half to two months of working days. Where the water table is 35 to 45 feet deep and the strata containing admixture of porous soil, soft rock and hard rock, a well under similar conditions would require about three to four months of working days. This is just the rough estimate. The soil conditions, the depth of water-table, diameter of the well and the strength of labour employed, varies from one another and, therefore, the period required for well-digging is

different in each case. The Survey indicated that the period required for well-digging fluctuated from a minimum of 15 working days to a maximum of 140 days. The depth of the wells varied from 15 to 52 feet and their diameter (of unconstructed wells) from 12 to 36 feet.

### 5.3 Categorisation of Sample Wells

The sample wells, according to their conditions during 1966-67, are categorised into (i) wells which were in operation (working wells), (ii) wells that have gone dry or could not strike water. This category includes three types of wells: (a) wells that were in operation but subsequently have gone dry, (b) wells that were dug even upto 40 feet and beyond, but could not strike water and (c) wells whose digging-work was required to be left out due to the occurrence of hard rock; (iii) wells that remained incomplete due to shortage of funds for the work of further digging and construction, for purchase of bullocks and construction of irrigational channels; (iv) wells in whose cases the bank loan was misutilized, and (v) wells whose work was in progress. Table 5.3 indicates the number of sample wells under each category according to the size of loan sanctioned.

Table 5.3: Showing the number of Sample Wells under each category according to size of Loan-Position during 1966-67 (Figures in brackets indicate the percentages)

Gr- oup No.	Size of loan	Total Sample Wells	Work- ing Wells	Wells that have gone dry or could not strike water	Incom- plete wells due to short- age of funds	Wells in whose cases loan was misuti- lized	Wells whose work was in pro- gress
	Rs.	No.	No.	No.	No.	No.	No.
1	Upto 1000	16 (100.00)	6 (37.50)	1 (6.25)	7 (43.75)	2 (12.50)	-
2	1001 to 2000	21 (100.00)	27 (38.03)	16 (22.54)	20 (28.17)	6 (8.45)	2 (2.81)
3	2001 to 3000	159 (100.00)	46 (28.93)	27 (16.98)	40 (25.16)	35 (22.01)	11 (6.92)
4	3001 to 4000	31 (100.00)	13 (41.94)	7 (22.57)	1 (3.23)	10 (32.26)	-
Total of 4 groups		277 (100.00)	92 (33.22)	51 (18.41)	68 (24.55)	53 (19.13)	13 (4.69)

The above table reveals that of the 277 sample wells, only 92 (33.22 percent) wells were in operation during 1966-67; 68 (24.55 percent) wells remained incomplete due to shortage of funds - 65 wells for want of funds for

further deepening and construction, 2 wells for lack of money for purchase of bullocks to lift water from the wells, which are, otherwise, ready for irrigation, and one well for want of funds for construction of irrigational channels, in the absence of which, irrigation was not possible. Fifty-one (18.41 percent) wells have gone dry or could not strike water - 33 wells have gone dry for failure of monsoons in recent years, 7 wells though they were dug from 40 to 52 feet deep could not strike water, and 11 wells encountered hard rock and hence their work was required to be left out. In the case of 53 (19.13 percent) wells, the bank loan obtained was misutilized, of which, four cases were of complete misutilization and in the case of the remaining wells, a portion of the first instalment of loan was only utilized for the work of well-digging and the remaining portion of the first instalment together with the full amount of the second instalment of loan was misutilized i.e. utilized for purposes other than the wells. And the work of 13 wells was in progress.

It would be further seen that the percentage of the cases of misutilization increased with the increasing order of size-group of loan except for group No. 2, where the cases of misutilization were less than those in group No. 1. The highest percentage (32.26 percent) of the cases of misutilization occurred in the highest size-group of loan and the lowest (8.45 percent) in loan-size group No.2.

The above table also indicates that the percentage of wells that remained incomplete due to the shortage of funds, increased with the decreasing order of size of loan. The percentage of such wells in loan-size-group No. 1 was the highest (43.75 percent), while in group No. 4, it was the lowest (3.23 percent). The percentage of wells that have gone dry or could not strike water was higher (about 23 percent) in groups Nos. 4 and 2, while it was the lowest (about 6 percent) in group No. 1.

As regards working wells, their percentage (41.94 percent) was the highest in the largest loan-size-group No. 4 and the lowest (23.93 percent) in group No. 3, while the same in groups Nos. 1 and 2, was more or less similar (about 38 percent).

Category-wise study of the utilization of loans is dealt with in the following sub-sections, and each category would study the following:-

- (i) Disbursement of loan and costs of wells.
- (ii) Additional amounts spent and their sources.
- (iii) Cost of family labour and amount of loan consumed against it.
- (iv) Misutilization of loans and the purposes for which they were misutilized.
- (v) Recovery and overdue position and sources of recovery of loan instalments.
- (vi) Additional Funds required for further deepening and construction of wells and additional acreage that can be brought under irrigation.

## C o n c e p t s

The concepts used in the following sections are defined hereunder:-

Cost of Well: The cost of a well includes (a) the cost incurred on digging i.e. labour charges, cost of digging implements, cost of explosive materials and charges incurred on transport, (b) cost of construction of well and 'Tharole' (water trough) i.e. labour charges for cutting, shaping and transporting the stones, charges for skilled and unskilled labour for the work of construction and of filling the gap around the construction work and the cost of lime and cement, (c) cost of 'Mot' (water bag) and associated items i.e. cost of Mot, expenses incurred for making a wooden structure placed on 'Tharole' for lifting water from the well, cost of yoke and ropes and labour charges incurred on preparation of 'Dhanvpatti' (a run way for a team of bullocks) and (d) cost of irrigational channels and bunds on the farm brought under irrigation. The work of digging, in a majority of the cases, was given to the contractors on a contract basis and in some cases, it was carried out with the help of paid labour or jointly with the family labour. The work of construction was given only on a contract basis, but the work of transport of stones and of filling the gap around the construction-work were generally carried out by the paid labour jointly with the family labour. In respect of all the above items, actual expenses incurred were taken as the cost of the well and the cost of family labour both human and animal was calculated at the prevailing rates and is shown separately.

Additional Amount: Additional amount is an amount spent on well in addition to the bank loan received.

Other Purposes: are the purposes other than the ones related to the well-work - defined in 'cost of well'.

Agricultural Income: It is the income from the sale of agricultural produce and from the sale of milk.

Non-agricultural Income: It is the income from the sources of service, labour, carting and business.

Liquidation of assets: It means the sale of land, animals and gold.

Society loan: It is the short-term loan obtained from the village cooperative society for raising crops.

Private loan: It is the loan obtained from relatives and well-to-do agriculturists who charged the rate of interest at 2 percent per month i.e. 24 percent per annum, as against 4-1/2 percent rate of interest on the bank loan for wells.

Cost of Family Labour: The family labour employed for the well-work was valued on the basis of number of working days and the prevailing labour rates. The amount of loan that was utilized purely for consumption purposes in respect of such wells where family labour was employed, was taken as consumed against the cost of family labour and the amount of loan utilized for purposes other than consumption even though such amount (together with the

amount of loan utilized for consumption) was much lower than the cost of family labour, was taken as misutilized. Amount of loan utilized for consumption against the cost of family labour is excluded from the meaning of misutilization since the same or even more would have been, otherwise, required to be spent on paid labour. Where the amount of loan utilized for consumption against employment of family labour was higher than the cost of family labour, the differential amount is treated as misutilized.

Purchase of Animals: Animals include bullocks and milch cattle.

Demand Wells: Wells in whose case loan instalments were due for recovery are called as demand wells.

Defaulting Wells: Wells in whose case loan instalments were defaulted are called as defaulting wells.

#### 5.4 Working Wells

Working wells are defined as the wells under which irrigated farming was carried out in 1966-67. Out of 277 sample wells, only 92 wells were functioning in 1966-67. These 92 wells are studied in detail in the following sub-sections.

#### 5.4 (i) Disbursement of Loan and Cost of Wells

The net amount of loan disbursed for the 92 working sample wells was Rs. 1,90,788 and the expenses incurred on the various items viz. digging and construction of wells, purchase of Mot and associated cost and construction of irrigational channels and bunds, amounted to Rs. 2,18,495/-. Itemwise expenses are given in Table 5.4.

The table indicates that out of Rs. 2,18,495/-, about 55 percent was spent on digging, about 37 percent on the construction of wells, and the remaining 8 percent on the purchase of Mot and accessories (5 percent) and on the construction of irrigational channels and bunds (3 percent). In the case of 47 working wells, an additional amount of Rs. 50,521/- was spent, which is about 23 percent of the total cost of the wells, while in the case of 44 wells, an amount of Rs. 22,814 out of the total net amount of loan of Rs. 1,90,788/- which is about 12 percent, was utilized for other purposes.

It is further seen that the percentage of the additional amount to the total cost increased with the decreasing order of loan-size. It is the highest (57 percent) in the lowest-loan size group No. 1, while it was the lowest (2 percent) in the highest loan-size group No. 4. On an average, it was about 23 percent.

As regards utilization of loan for other purposes, the percentage of such amount to the net amount of loan increased with the increasing order of loan-size. It was the highest (about 17 percent) in the highest loan-size group No. 4, while the same was the lowest (about 3 percent) in the lowest loan-size group No. 1. On an average, it was about 12 percent.

Average cost per well was the lowest (Rs. 2062) in the lowest loan-size group No. 1, while it was the highest (Rs. 2686) in the largest loan-size group No. 4. On an average, the cost per working well was Rs. 2375/- and the overall percentage of the utilization of loan (excluding the amount of loan consumed against family labour) to the net amount of loan was about 88 percent.

to size of loan

'amt.' indicates Rupees.

'no' indicates number of wells.

Group No.	Size of loan		Total sample wells	Loans issued	Deductions	Net amount disbursed	Cost of digging	Cost of construction	Cost of Mot and associated cost	Cost of irrigation channels and bunds	Total cost
	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	Upto	1,000	6	5,800	488	5,312	7,950	3,335	1,086	-	12,371
2	1,001 to	2,000	27	43,700	4,515	39,185	32,707	24,050	3,368	550	60,675
3	2,001 to	3,000	46	1,18,850	13,703	1,05,147	58,382	41,915	5,670	4,569	1,10,536
4	3,001 to	4,000	13	46,900	5,756	41,144	21,630	10,325	1,535	1,423	34,913
Total of 4 groups			92	2,15,250	24,462	1,90,788	1,20,669	79,625	11,659	6,542	2,18,495
Percent of total cost							55.23	36.44	5.34	2.99	100.00

Group No.	Size of loan		Additional amount spent		Loan utilized for other purposes		Percentage of additional amount to total cost	Percentage of loan utilized for other purposes to net amount of loan	Average cost per well
			no	amt.	no	amt.			
1	Upto	1,000	6	7,059	-	-	57.06	-	2,062
2	1,001 to	2,000	21	22,698	7	1,208	37.41	3.08	2,247
3	2,001 to	3,000	17	20,068	27	14,679	18.16	13.96	2,403
4	3,001 to	4,000	3	696	10	6,927	1.99	16.84	2,686
Total of 4 groups			47	50,521	44	22,814	23.12	11.96	2,375



#### 5.4 (ii) Additional Amount spent and its Sources

Where the bank loan received was inadequate for the completion of wells, other sources were required to be tapped to complete the incomplete work of the wells. In the case of 47 wells, an additional amount of Rs.50,521/- was required to be spent to put these wells to the use of irrigation. The sources from which the said amount was raised are indicated in Table 5.5.

It is evident from the table that of the sources of additional amount of Rs. 50,521/- spent on the wells, the agricultural source contributed about 43 percent which is the highest. Next to the agriculture was from the liquidation of assets (about 15 percent); from the past savings and private borrowings, each about 14 percent and from the non-agricultural sources, about 13 percent. Out of Rs.7587 from the liquidation of assets, a major portion i.e. Rs. 6787/- was from the sale of animals, particularly goats and young bulls, and Rs. 800/- from the sale of land (Rs. 500/-) and gold (Rs. 300/-). Out of Rs. 6594 from the non-agricultural source, an amount of Rs. 3909/- was from service, Rs.2530/- from labour and Rs.155/- from business.

It is also seen from the table that private borrowings were obtained in the case of lower holding-size-groups Nos. 1 and 2 except Rs. 331/- in group No. 4. The lower-holding-size groups Nos. 1 and 2 had the source of non-agriculture i.e. mainly service and labour. The highest holding-size group No. 5, mainly had the sources of agriculture and past savings.

#### 5.4 (iii) Cost of Family Labour and Consumption of Loan against it

Where family labour was available, it was employed for the work of wells. Family labour was used in the case of 40 wells for the work of digging and in the case of 37 wells for the work of construction of wells, irrigational channels and bunds. The cost of family labour and the amount of loan consumed against it are indicated in Table 5.6.

It is seen that the total cost of the family labour employed for the well-work amounted to Rs. 25,947/- of which 67 percent was for the work of digging and the remaining 33 percent for the construction-work of wells, irrigational channels and bunds. As against the total cost of the family labour of Rs. 25,947, an amount of Rs. 7,211 was utilized for consumption.

The amount of loan consumed against the employment of family labour was, on the whole, 3.78 percent of the net amount of loan. The lowest loan-size group No. 1 did not utilize the bank loan for consumption even though it had put in the family labour of the cost of Rs. 3,420/-. In loan-size group No. 3, the amount of loan consumed against family labour was to the extent of 6.23 percent of the net amount of loan received in this group, which was the highest. It was the lowest (0.31 percent) in the loan-size group No. 4. The percentage of the total cost of family labour to the total cost of wells (including the cost of family labour) was much higher (10.61 percent) than that of the total amount of loan consumed against family labour to the total net amount of loan (3.78 percent).

**Table 5.5:** Showing different sources from which the additional amount was raised in respect of working wells according to size of holding

'no' indicates number of wells. 'amt.' indicates rupees.

Group No.	Size of Holding (acres)	Additional amount		Savings		Agricultural income		Non-agricultural income		Liquidation of assets		Society Loan		Private Loan	
		no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
1	Upto 10.0	9	12,063	1	1,000	5	3,763	3	1,638	3	2,487	-	-	2	3,175
2	10.1 to 20.0	21	22,236	5	5,000	9	6,083	5	4,466	5	2,628	1	404	4	3,624
3	20.1 to 30.0	4	2,611	-	-	3	1,871	1	490	1	250	-	-	-	-
4	30.1 to 40.0	5	4,552	-	-	2	2,412	-	-	4	1,809	-	-	1	331
5	Above 40	8	9,059	1	1,196	7	7,450	-	-	1	413	-	-	-	-
Total of 5 groups		47	50,521	7	7,227	26	21,579	9	6,594	14	7,587	1	404	7	7,130
Percent of total			100.00		14.31		42.71		13.05		15.02		0.80		14.11

**Table 5.6:** Showing cost of family labour employed for well-works and amount of loan consumed against it in respect of working-wells, according to loan-size

'no' indicates number of wells 'amt.' indicates rupees.

Gr- oup No.	Size of loan  Rs.	Cost of family labour for			Loan consumed against family labour		Percen- tage of loan consumed against family labour to total net amount of loan	Total cost of wells plus cost of family labour Rs.	Percen- tage of cost of family labour to total cost in- cluding family labour	Average cost per well in- cluding cost of family labour Rs.		
		Digging work no	amt.	Construction work of wells, irri- gation channels and bunds no	amt.	Total amt.					no	amt.
1	Upto 1,000	6	3,170	2	250	3,420	-	-	-	15,791	21.66	2,632
2	1,001 to 2,000	8	3,142	11	2,550	5,692	5	538	1.37	66,367	8.58	2,458
3	2,001 to 3,000	23	10,255	22	5,350	15,605	17	6,546	6.23	1,26,141	12.37	2,742
4	3,001 to 4,000	3	930	2	300	1,230	1	127	0.31	36,143	3.40	2,780
Total of 4 groups		40	17,497	37	8,450	25,947	23	7,211	3.78	2,44,442	10.61	2,657
Percent of total cost		67.43		32.57		100.00						

The percentage of the cost of family labour to the total cost of wells (including family labour) was the highest (21.66 percent) in the lowest loan-size group No. 1 and the lowest (3.40 percent) in the highest loan-size-group No. 4.

The average cost per well including the cost of family labour was the lowest (Rs. 2458) in the loan size group No. 2 and the highest (Rs. 2780) in loan-size group No. 4. The average cost per working well including the cost of family labour in respect of all the 92 working wells was Rs. 2657/-.

The utilization of loans for wells excluding the amount of loan consumed against family labour as observed in the sub section 5.4(i) was 88.04 percent. If the amount of loan consumed against family labour which was 3.78 percent of the total net amount of loan, is treated as a part of the cost of the wells, the percentage of the utilization of loan would be 91.82.

#### 5.4 (iv) Misutilization of loan and its Purposes

Misutilization of loan for a well can be defined as expending an amount of loan on the purposes (excluding that utilized for consumption against the employment of family labour) other than the ones relating to the well-work i.e. digging and construction of well, purchase of Mot and associated articles, construction of Tharole and irrigational channels and bunds on the farm brought under well irrigation. Proper utilization of loans is one of the most important problems in the field of rural finance. It is generally believed that the Indian farmers do not fully utilize the loan for the purpose for which it was granted. Therefore, it is one of the chief objects of the present study to know the extent of utilization and misutilization of loans by the farmers, which were made for sinking of wells.

The amount of loan utilized for other purposes in the case of working wells was Rs. 22,814/- of which an amount of Rs. 7,211/- was utilized for consumption against the employment of family labour, leaving the balance of Rs. 15,603/- i.e. 8.22 percent of the net loan, which was misutilized for purposes other than the wells as indicated in Table 5.7.

It is evident that out of the misutilized loan of Rs. 15,603/-, the major portion was utilized for the purposes of repayment of the bank loan instalments, repayment of the Society loan and consumption. An amount of Rs. 850/- in the case of one well, was misutilized for the purchase of a piece of land and Rs. 850/- in the case of two wells for the repayment of the private loan. In the case of another well, an amount of Rs. 800/- was a bad advance to the contractor. An amount of Rs. 2,660/- in respect of 6 wells, was misutilized mainly for the purchase of working bullocks.

It is also evident that the major portion of the loan was misutilized in higher loan-size groups Nos. 3 and 4.

There is a general practice in the Bank to recover the amount of first instalment from the disbursement of second instalment of loan itself if it is paid from

**Table 5.7:** Showing purpose-wise misutilization of loan in respect of working wells, according to loan-size

'no' indicates number of wells. 'amt.' indicates rupees.

Gr- oup No.	Size of loan	Total loan misutilized		Purchase of animals		Investment in lands and houses		Consump- tion		Repayment of bank loan		Repayment of Society loan		Repayment of pri- vate loan		Bad advance to con- tractor	
		no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
1	Upto 1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	1,001 to 2,000	2	670	-	-	-	-	-	-	1	170	1	500	-	-	-	-
3	2,001 to 3,000	20	8,133	4	1,695	-	-	7	1,374	10	2,727	3	1,037	1	500	1	800
4	3,001 to 4,000	9	6,800	2	965	1	850	5	1,517	5	1,718	2	1,400	1	350	-	-
Total of 4 groups		31	15,603	6	2,660	1	850	12	2,891	16	4,615	6	2,937	2	850	1	800
Percent of total		100.00		17.05		5.45		18.53		29.58		18.82		5.45		5.12	

November onwards; or if the borrower received the second instalment of loan, sometime, from August to October and could not utilize it for reasons of rains upto October and for busy season upto March next year, he used this amount for repayment of the first instalment of loan due on or before 31st March, as notified to him by the Bank quite well in advance.

The amount of loan that is utilized for purchase of working bullocks is also treated as misutilized since the medium-term loan for purchase of bullocks is available from the District Central Cooperative Bank.

#### 5.4 (v) Demand, Recovery and Overdue Position and Sources of Recovery

The total amount of loan sanctioned for the 92 working wells was Rs. 2,16,750/-. The demand for recovery of the loan instalments upto 30-6-1966 was Rs. 61,722/- in respect of 86 wells and the instalments of loan in the case of 6 wells were not due for recovery upto 30-6-1966. The recovery effected against the demand for the recovery of loan instalments and the overdues against the amount of demand for the period ending 30-6-1966 stood as indicated in Table 5.8.

The overdues (i. e. the defaulted amount of loan instalments) in relation to the demand for recovery were about 18 percent which is very unsatisfactory in the case of working wells. The loan instalments due for recovery in respect of the working wells are expected to be fully recovered from the sale-proceeds of the increased agricultural production accruing as a result of irrigation made available to the crops from the new wells. The total number of defaulting wells in relation to the total number of demand wells was 39.53 percent, which was much more discouraging.

The percentage of recovery to demand was the highest in the lowest loan-size group No. 1, while it was the lowest in the highest loan-size group No. 4.

The demand, recovery and overdue position according to the size of the irrigated area brought under the working wells is given in Table 5.9.

From the table it is observed that the percentage of recovery to demand was higher in the larger irrigated area-size groups No. 4 and No. 5 while it was lower in the smaller irrigated area-size groups No. 1, No. 2 and No. 3. The percentage of the defaulting wells to the demand wells was higher in the smaller irrigated area-size groups Nos. 1, 2 and 3 and lower in the higher irrigated area-size groups Nos. 4 and 5.

The different sources of recovery of loan instalments and the amounts of recovery from these sources are given in Table 5.10.

The principal source of the recovery of loan instalments was the agricultural income. The recovery made from this source was to the extent of about 69 percent of the total recovery (66 percent from the sale of agricultural produce and the remaining 3 percent from the sale of milk). The recovery from the non-agricultural income was about

Table 5.8: Showing demand, recovery and overdue position in respect of working wellas as at 30-6-1966, according to size of loan.

'amt.' indicates rupees. 'no' indicates number of wells.

Gr- oup No.	Size of loan	Loan sanc- tioned		Demand for recovery		Recovery effected			Percen- tage of reco- very to demand	Overdues				Percen- tage of default- ing wells to demand wells
		no	amt.	no	amt.	Prin- cipal amt.	Inte- rest amt.	Total amt		Principal no	amt.	Interest no	amt.	
1	Upto 1,000	6	5,800	4	2,014	1,221	588	1,809	89.82	2	171	1	34	50.00
2	1,001 to 2,000	27	44,700	24	15,707	8,556	3,896	12,452	79.28	9	2,536	7	719	37.50
3	2,001 to 3,000	46	1,18,850	45	35,189	20,392	9,004	29,396	83.54	17	4,443	12	1,350	37.78
4	3,001 to 4,000	13	47,400	13	8,812	4,374	2,359	6,733	76.41	6	1,521	4	558	46.15
Total of 4 groups		92	2,16,750	86	61,722	34,543	15,847	50,390	81.64	34	8,671	24	2,661	39.53

Table 5.9: Showing demand and recovery and overdue position in respect of working wells according to size of area brought under irrigation - Position upto 30-6-1966

'no' indicates number of wells. 'amt.' indicates rupees.

Gr- oup No.	Size of area brought under irrigation	No. of wells	Acreage brought under irriga- tion *A. G.	Total loan issued		Demand for recovery		Recovery made		Percen- tage of recovery to demand	Overdue		Percen- tage of defaul- ting wells to demand wells
				Rs.		no	amt.	no	amt.		no	amt.	
1	Upto 1.0 acre	10	9.26	24,700		10	4,828	8	3,418	70.80	4	1,410	40.00
2	1.1 to 2.0 acres	27	47.20	59,900		24	19,147	23	14,829	77.45	13	4,318	54.17
3	2.1 to 3.0 "	19	54.33	45,700		18	12,181	16	8,198	67.30	10	3,983	55.56
4	3.1 to 5.0 "	15	62.26	36,100		14	10,638	14	10,334	97.14	2	304	14.29
5	Above 5.0 "	21	164.10	50,350		20	14,928	18	13,611	91.18	5	1,317	25.00
Total of 5 groups		92	339.35	2,16,750		86	61,722	79	50,390	81.64	34	11,332	39.53

\* A. = Acres. G. = Gunthas.



Table 5.10: Showing source-wise recovery of loan instalments in respect of working wells according to size of holding

'amt.' indicates rupees. 'no' indicates number of wells.

Group No.	Size of Holding (acres)		Total loan recovery		Agricultural income		Non-agricultural income		Liquidation assets		Out of bank loan		Private loan	
			no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
1	Upto	10.0	12	4,316	8	2,591	6	1,400	-	-	1	325	-	-
2	10.1 to	20.0	29	15,891	19	10,236	5	2,636	3	827	5	1,734	1	458
3	20.1 to	30.0	14	10,266	8	7,002	3	1,864	1	250	5	1,150	-	-
4	30.1 to	40.0	9	7,545	3	2,383	2	1,103	1	2,672	4	1,387	-	-
5	Above	40.0	16	12,372	15	12,353	-	-	-	-	1	19	-	-
Total of 5 groups			80	50,390	53	34,565	16	7,003	5	3,749	16	4,615	1	458
Percent of total				100.00		68.59		13.90		7.44		9.16		0.91

14 percent and from the liquidation of assets 7.44 percent. Out of Rs. 7,003/- from the non-agricultural income, Rs. 4,039/- were from service and Rs. 2,964/- from labour. Of Rs. 3,749/- from the liquidation of assets, Rs. 2,672/- in the case of one well were from the sale of land and the remaining amount of Rs. 1,077/- from the sale of animals i.e. goats. Rs. 4,615/- (about 9 percent) were recovered or paid from the amounts of the second instalment of loans and Rs. 458/- (0.91 percent) from the source of private borrowings.

In all the holding-size groups, the recoveries effected were mainly from the agricultural income except in group No. 4, where the recovery from the liquidation of assets, non-agricultural income and out of the bank loan constituted about 69 percent and from the agricultural income 31 percent.

Of the 92 working wells, the loan accounts of 4 wells were closed down by paying off the entire outstanding loans - mainly from the sale of a piece of land in the case of one well, and in the case of another well mainly from the sale proceeds of agricultural income and in the case of remaining two wells both from the agricultural and non-agricultural incomes. The land was sold mainly because it fetched a good price and the entire loan was paid from this amount. In the case of the remaining three wells there was a good income from the lands brought under irrigation and, hence, from this income and from the supplementary source of non-agriculture, the entire bank loans were repaid and accounts were closed. The owner of the well, who repaid the entire outstanding loan on his account from the sale of land belonged to the higher holding-size group No. 4.

#### 5.4 (vi) Requirements of Additional Funds for further deepening and construction of wells and more acreage that can be brought under irrigation

Inquiries made in connection with the further deepening and construction in respect of the working wells and the possibility of adequate supply of irrigation that would be available from these wells, reveals that of the 92 working wells, 33 required further deepening of about 8 feet to 15 feet which will involve a cost of Rs. 37,700/- estimated on the prevailing rates of labour and material, working out to about Rs. 1,150/- per well as could be seen from Table 5.11.

The construction of wells and Tharole was required to be done in the case of 12 wells, of which, 8 required construction of both wells and Tharole, 3 required construction of the wells only and one required construction of Tharole only. At present, temporary 'Tharoles' were erected on these wells. The above construction work involves a cost of about Rs. 11,700/- which roughly works out to Rs. 1,000/- per well. Out of 92 working wells, 6 wells did not require construction since the soil was hard from the surface itself. In the case of two wells, the construction-work could have been done within the bank loan itself, but the same was misutilized. Out of 92 working wells, 73 wells were constructed.

On providing additional funds of Rs. 37,700/- and Rs. 11,700/- for further deepening of 33 wells and for

Table 5.11: Showing additional funds required for further deepening and construction in respect of working wells, according to size of loan

'no' indicates number of wells.  
'amt' indicates rupees

Gr- oup No.	Size of loan	Funds required for further deepening		Funds required for construction		Additi- onal acreage that can be brought under irriga- tion (acres)
		no.	amt	no.	amt	
1	Upto 1,000	2	2,300	2	1,400	-
2	1,001 to 2,000	13	14,800	2	1,200	19
3	2,001 to 3,000	15	16,700	8	9,100	9
4	3,001 to 4,000	3	3,900	-	-	12
Total of 4 groups		33	37,700	12	11,700	40

construction of 12 wells respectively; additional 40 acres can be brought under irrigation, the existing acreage can be adequately irrigated; the area under double crops can be increased; there will be a change in the cropping pattern from food crops to cash crops and the crops raised can be assured required irrigation. All the above factors will have an impact on the agricultural production.

#### 5.5 Wells that have gone dry or could not strike water

Wells that have gone dry are those which were used for irrigation for crops but subsequently have gone dry mainly due to inadequate monsoons in the last four years, particularly in the talukas of Parner, Shrigonda, and Ahmednagar as could be seen from Table 5.12.

There was no incidence of wells going dry in the two talukas of Jamkhed and Karjat. Although the rainfall in these two talukas in 1965 was also less, the year of 1966, it was reported, witnessed an adequate rainfall in these talukas, while in the remaining three talukas, rainfall in 1966 was more or less the same as was in the preceding year.

The second reason for the drying of wells was the sinking of new wells in the vicinity of the existing wells. Five wells were sunk just within the radius of 50 feet and 12 wells within the radius of 51 feet to 250 feet, resulting in the drying of some wells due to diversion of water currents. Wells that were dry in 1966-67 numbered 33.

**Table 5.12:** Showing rainfall in the selected five talukas of Ahmednagar District during 1962 to 1965

(Rainfall in inches)

Taluka	Rainfall			
	1962	1963	1964	1965
Ahmednagar	27.44	17.25	20.24	19.80
Shrigonda	29.27	16.97	30.97	11.43
Parner	27.19	16.89	19.06	22.49
Karjat	27.89	21.07	26.65	20.65
Jamkhed	27.83	23.92	34.51	17.30

**Source:** Information supplied by the Bureau of Economics and Statistics, District Statistical Office, Ahmednagar.

Wells that could not strike water are categorised into two - (a) wells that were dug even upto 40 feet and beyond (upto 52 feet) but did not strike water; these wells can be treated as failed wells. Further digging in respect of these wells would prove to be uneconomical for the purpose of irrigation even if the water is, by chance, struck at 50 feet or beyond and there was no surety of striking water if the wells were further dug and would mean wasteful expenditure, and (b) wells where hard rock was encountered and, therefore, further work was rendered impossible. Out of such 11 wells, in respect of 7 wells, further digging proved unsuccessful even with the help of blasting machines. Out of 7 failed wells, in respect of 3 wells also, further digging proved unsuccessful with the help of blasting machines.

Wells that have gone dry or could not strike water were 51 i.e. 18.41 percent of the total sample wells. Of these 51 wells, 33 were dry wells, 7 failed wells and 11 hard-rocked wells.

### 5.5 (i) Disbursement of Loan and Cost of Wells

The net amount of loan disbursed for these 51 wells was to the tune of Rs. 1,08,733/- and the expenses incurred on these wells amounted to Rs. 1,19,200/- as detailed in Table 5.13.

It is seen that about 69 percent of the total cost was on the work of digging, 26 percent on the construction of wells, 4 percent on the purchase of Mot and associated items and about 1 percent on the construction of irrigational channels and bunds. Some of the farmers were found to have completed the construction of wells and Tharoles even before completing the digging-work, with a view to getting the subsidy, through ignorance, as they were given to understand that construction of wells is the necessary condition for entitlement to the subsidy. This led to the wastage of money on construction in the case of failed and hard-rocked wells. It is, therefore, necessary that the farmers should be properly guided by the Agricultural Extension Officers in this regard. In the case of 26 wells,

**Table 5.13:** Showing expenditure on various items in respect of wells that have gone dry or could not strike water according to category of wells

'amt.' indicates rupees. 'no' indicates number of wells.

Category of wells	Total sample wells no	Loan issued Rs.	Deductions Rs.	Net amount disbursed Rs.	Cost of digging Rs.	Cost of construction	Cost of Mot and associated cost Rs.	Cost of irrigation channels & bunds Rs.	Total cost Rs.
Dry wells	33	82,200	9,249	72,951	48,550	25,700	4,461	775	79,486
Failed wells	7	17,450	1,600	15,850	20,280	3,226	100	-	23,606
Hard-rocked wells	11	22,300	2,368	19,932	13,908	2,200	-	-	16,108
<b>Total</b>	<b>51</b>	<b>1,21,950</b>	<b>13,217</b>	<b>1,08,733</b>	<b>82,738</b>	<b>31,126</b>	<b>4,561</b>	<b>775</b>	<b>1,19,200</b>
<b>Percent of total cost</b>					<b>69.41</b>	<b>26.11</b>	<b>3.81</b>	<b>0.65</b>	<b>100.00</b>

Category of wells	Additional amount spent		Loan utilized for other purposes		Percentage of additional amount to total cost	Percentage of loan utilized for other purposes to net loan	Average cost per well Rs.
	no	amt.	no	amt.			
Dry wells	19	14,376	13	7,841	18.09	10.75	2,409
Failed wells	5	8,809	1	1,053	37.32	6.64	3,372
Hard-rocked wells	2	1,917	8	5,741	11.90	28.80	1,464

an additional amount of Rs. 25,102/- was spent, which is about 21 percent of the total cost of wells, while in the case of 22 wells, an amount of Rs. 14,635, out of the total net loan of Rs. 1,08,733, which is about 13.5 percent, was utilized for other purposes.

It is further seen that the percentage of the additional amount to the total cost was the highest (37.32 percent) in the case of failed wells and the lowest (11.90 percent) in the case of hard rocked wells. On an average, it was about 21 percent. The percentage of the loan utilized for other purposes to the net amount of loan was the lowest (6.64 percent) in the case of failed wells and the highest (28.80 percent) in the case of hard rocked wells. The reason for the highest percentage in the case of hard rocked wells was that the work of digging was required to be left out and the amount of loan that was left over was utilized for other purposes.

The average cost per well was the highest (Rs. 3372/-) in the case of failed wells and the lowest (Rs. 1464/-) in the case of hard rocked wells. On the whole, the average cost was Rs. 2337/-.

The percentage of the utilization of loan (excluding the amount of loan consumed against family labour) to the net amount of loan was 89.25 percent, 93.36 percent and 71.20 percent in respect of dry wells, failed wells and hard rocked wells respectively. On the whole, it was 86.54 percent).

#### 5.5 (ii) Additional Amount Spent and its Sources

In addition to the bank loan received, an additional amount of Rs. 25,102/- was spent in the case of 26 out of 51 wells that have gone dry or could not strike water, which was about 21 percent of their total cost. The sources from which the said amount was raised are indicated in Table 5.14.

It is evident from the table that of the sources of additional amount of Rs. 25,102/-, the major sources were the liquidation of assets (about 35 percent) and the agricultural income (about 22 percent). The private borrowings were about 13 percent.

In the case of dry wells, 32.4 percent of the additional amount was from the liquidation of assets, which in the case of failed wells was 38.2 percent and hard rocked wells 36.5 percent. The amount raised from private borrowings was to the extent of 20.5 percent in respect of failed wells and 10 percent in respect of dry wells. This source was absent in the case of hard rocked wells.

Out of the additional amount of Rs. 4,655/- raised from the liquidation of assets in respect of dry wells, a major portion (Rs. 3,422/-) was from the sale of animals (goats and young bulls) and the remaining amount of Rs. 1,233/- was from the sale of land in the case of one well. Out of Rs. 3,368/- raised from the liquidation of assets in respect of failed wells, a major portion (Rs. 2,468/-) was from the sale of land in the case of one well, Rs. 600/- from the sale of gold and Rs. 300/- from the sale of bullocks. In respect of hard rocked wells the additional amount of Rs. 700/- raised from the liquidation of assets was mainly from the sale of gold.

Table 5.14: Showing different sources of raising the additional amounts in respect of wells that have gone dry or could not strike water, according to category of wells

'no' indicates number of wells. 'amt.' indicates rupees.

Category of wells	Additional amount spent		Savings		Agricultural income		Non-agricultural income		Liquidation of assets		Society loan		Private loan	
	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
Dry wells	19	14,376	2	713	9	4,450	4	3,133	6	4,655	-	-	2	1,425
Failed wells	5	8,809	1	2,098	2	1,041	1	500	3	3,368	-	-	2	1,802
Hard rocked wells	2	1,917	2	1,217	-	-	-	-	1	700	-	-	-	-
Total	26	25,102	5	4,028	11	5,491	5	3,633	10	8,723	-	-	4	3,227
Percent of total		100.00		16.05		21.87		14.47		34.75				12.86

Out of the total amount of Rs. 3,633/- from the non-agricultural income, an amount of Rs. 1,682/- was from the business and the remaining amount of Rs. 1,951/- from labour (Rs. 1,051/-) and service (Rs. 900/-).

The major sources of raising additional amount in the lowest holding-size group (upto 10 acres) were non-agricultural income and private borrowings, in the lower holding-size group (from 10.1 to 20.0 acres) liquidation of assets, in the middle and higher holding-size groups (from 20.1 to 30.0 acres and from 30.1 to 40.0 acres respectively) agricultural income and the liquidation of assets and in the highest holding-size group (above 40 acres) only savings.

#### 5.5 (iii) Cost of family Labour and Consumption of Loan against it

Family labour employed for the work of digging and of construction was in respect of 18 wells and 14 wells respectively. Table 5.15 indicates the cost of the family labour and the amount of loan consumed against it.

It is seen that the total cost of the family labour employed for the well-work amounted to Rs. 11,091/- of which 60 percent was for the digging-work and the remaining 40 percent for the construction of the wells, irrigation channels and bunds. As against the total cost of family labour of Rs. 11,091/-, the amount of loan consumed against family labour was Rs. 2,460/-. The percentage of the total cost of the family labour to the total cost of the wells (including the cost of family labour) was much higher (8.5 percent) than that of the total amount of loan consumed against family labour to the total net amount of loan (2.3 percent). The cost of family labour to the total cost of wells (including the cost of family labour) was 10.85 percent in the case of hard rocked wells and 10.30 percent in the case of dry wells. No family labour was employed in the case of failed wells.

The percentage of the loan consumed against family labour to the net amount of loan was higher (4.19 percent) in the case of hard rocked wells than that (2.23 percent) in the case of dry wells. On the whole, it was 2.26 percent.

The average cost per well including the cost of family labour was the highest i.e. Rs.3,372/- in the case of failed wells, Rs. 2,685/- in the case of dry wells and the lowest i.e. Rs.1,643/- in the case of hard rocked wells.

The utilization of loan for the wells including the amount of loan consumed against family labour to the net amount of loan was 91.48 percent for dry wells, 93.36 percent for failed wells and 75.39 percent for hard rocked wells. On the whole, it was 88.80 percent.

#### 5.5 (iv) Misutilization of Loan and its Purposes

Out of the net amount of loan of Rs. 1,08,733/- disbursed for 51 wells that have gone dry or could not strike water, an amount of Rs. 14,635/- was utilized for other purposes, of which an amount of Rs. 2,460/- was consumed against family labour and the balance of Rs. 12,175/- was misutilized for purposes other than the well. The percentage of the misutilization of loan to the net amount of loan was 11.20 percent. The purposes for which the loan was misutilized are given in Table 5.16.



Table 5.15: Showing cost of family labour employed for the well-work and the amount of loan consumed against it in respect of wells that have gone dry or could not strike water according to category of wells

'no' indicates number of wells 'amt.' indicates rupees.

Category of wells	Cost of family labour for			Loan consumed against family labour	Percentage of loan consumed against family labour to net amount of loan	Total cost of wells and cost of family labour	Percentage of cost of family labour to total cost of wells including cost of family labour	Average cost per well including cost of family labour			
	Digging work	Construction work	Total								
	no	amt.	no	amt.	amt.	no	amt.	Rs.	Rs.		
Dry wells	14	5,420	13	3,711	9,131	5	1,624	2.23	88,617	10.30	2,685
Failed wells	-	-	-	-	-	-	-	-	23,606	-	3,372
Hard-rocked wells	4	1,260	1	700	1,960	2	836	4.19	18,068	10.85	1,643
<b>Total</b>	<b>18</b>	<b>6,680</b>	<b>14</b>	<b>4,411</b>	<b>11,091</b>	<b>7</b>	<b>2,460</b>	<b>2.26</b>	<b>1,30,291</b>	<b>8.51</b>	<b>2,555</b>
Percent of total cost		60.23		39.77	100.00						

Table 5.16: Showing purposewise misutilization of loan in respect of wells that have gone dry or could not strike water, according to category of wells

'no' indicates number of wells. 'amt.' indicates rupees.

Category of wells	Total loan misutilized		Purchase of animals		Consumption		Marriage and education		Repayment of bank loan		Repayment of Society loan		Repayment of private loan	
	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
Dry wells	11	6,217	1	500	4	2,122	1	851	5	1,489	2	700	1	555
Failed wells	1	1,053	-	-	1	451	-	-	1	302	-	-	1	300
Hard-rocked wells	6	4,905	1	500	5	1,801	-	-	6	1,504	2	600	2	500
<b>Total.</b>	<b>18</b>	<b>12,175</b>	<b>2</b>	<b>1,000</b>	<b>10</b>	<b>4,374</b>	<b>1</b>	<b>851</b>	<b>12</b>	<b>3,294</b>	<b>4</b>	<b>1,300</b>	<b>4</b>	<b>1,355</b>
<b>Percentage of total</b>		<b>100.00</b>		<b>8.21</b>		<b>35.93</b>		<b>6.99</b>		<b>27.03</b>		<b>10.71</b>		<b>11.13</b>

It is evident from the table that the percentage of the loan misutilized for the purpose of consumption to the total loan misutilized was the highest (about 36 percent) and next to it (about 27 percent) for the purpose of repayment of the bank loan instalments. About 11 percent was misutilized for repayment of the private loan and 10.7 percent for repaying of the crop loan to the primary co-operative society. The total amount of loan misutilized for the repayment of the various loans was 48.87 percent of the total loan misutilized. In respect of one well, an amount of Rs. 851/- was misutilized for a marriage and in respect of two wells, an amount of Rs. 1,000/- was misutilized for the purchase of two pairs of bullocks.

In respect of all the three categories of wells, major portion of the misutilized loan was for the purpose of consumption and repayment of the various loans.

#### 5.5 (v) Demand, Recovery and Overdue Position and Sources of Recovery

The total amount of loan sanctioned for the wells that have gone dry or could not strike water was Rs. 1,23,850/-. The demand for recovery of the loan instalments upto 30-6-1966 was Rs. 47,583/-. The recovery effected and the overdues against the demand for recovery were Rs. 30,946/- and Rs. 16,637/- respectively as mentioned in Table 5.17.

It is evident from the table that the amount of overdues in relation to the amount of demand for recovery was 35 percent, which is most unsatisfactory. Since there was no increase in the agricultural production due to the drying of the wells or unstriking of water, the loan obtained for the wells has become an added burden of debt to the well-owners. Inability to pay the bank loan instalments in time and regularly was but natural. The total number of defaulting wells in relation to the total number of the demand wells was as high as 65 percent.

The percentage of recovery to demand in the case of dry wells was 60 percent, in the case of failed wells 76 percent and in the case of hard rocked wells 72 percent. On the whole, it was 65 percent. The reason for the higher percentage of recovery in the case of failed wells was that the recovery of Rs. 2,792/- was made from the sale of land.

The different sources of recovery of the loan instalments and the amounts recovered from these sources are given in Table 5.18.

It is seen that the highest recovery was from the agricultural source, which was about 39 percent. The recovery from the liquidation of assets and from the non-agricultural income was each about 22 percent. The recovery made from out of the second instalment of loans and from the short-term loans from primary societies was about 11 percent and 6 percent respectively.

Out of the recovery of Rs. 12,051/- from the agricultural income, an amount of Rs. 11,499/- was from the sale of agricultural produce and the remaining amount of Rs. 552, from the sale of milk. Out of the recovery of Rs. 6,677/- from the non-agricultural income, an amount of Rs. 3,992/- was from the source of labour, Rs. 682/- from the source

**Table 5.17:** Showing demand, recovery and overdue position in respect of wells that have gone dry or could not strike water as at 30-6-1966 according to category of wells

'no' indicates number of wells. 'amt.' indicates rupees.

Category of wells	Total loan sanctioned		Demand for recovery		Recovery effected			Percentage of recovery to demand	Overdues				Percentage of defaulting wells to demand wells
	no	amt.	no	amt.	Prin- cipal amt.	Inte- rest amt.	Total amt.		Principal		Interest		
									no	amt.	no	amt.	
Dry wells	33	82,700	33	31,151	12,325	6,398	18,723	60.14	22	9,482	20	2,929	66.67
Failed wells	7	17,450	7	8,863	5,167	1,587	6,754	76.20	5	1,552	5	557	71.43
Hard-rocked wells	11	23,700	11	7,586	3,414	2,055	5,469	72.09	6	1,699	5	418	54.55
<b>Total</b>	<b>51</b>	<b>1,23,850</b>	<b>51</b>	<b>47,583</b>	<b>20,906</b>	<b>10,040</b>	<b>30,946</b>	<b>65.04</b>	<b>33</b>	<b>12,733</b>	<b>30</b>	<b>3,904</b>	<b>64.71</b>

Table 5.18: Showing source-wise recovery of loan instalments in respect of wells that have gone dry or could not strike water, according to category of wells

'no' indicates number of wells. 'amt.' indicates rupees.

Category of wells	Total loan recovery		Agricultural income		Non-agricultural income		Liquidation of assets		Out of bank loan		Society loan		Private loan	
	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
Dry wells	31	18,723	20	9,852	9	4,031	6	2,951	5	1,489	-	-	1	400
Failed wells	7	6,754	4	1,247	1	608	1	2,792	1	302	3	1,805	-	-
Hard-rocked wells	11	5,469	2	952	4	2,038	2	975	6	1,504	-	-	-	-
<b>Total</b>	<b>51</b>	<b>30,946</b>	<b>26</b>	<b>12,051</b>	<b>14</b>	<b>6,677</b>	<b>9</b>	<b>6,718</b>	<b>12</b>	<b>3,295</b>	<b>3</b>	<b>1,805</b>	<b>1</b>	<b>400</b>
Percent of total		100.00		38.94		21.58		21.71		10.65		5.83		1.29

of service and Rs. 1,638/- from the source of business. As regards recovery of Rs. 6,718/- from the liquidation of assets, an amount of Rs. 4,259/- in the case of two wells was from the sale of lands, Rs. 400/- from the sale of gold in the case of one well, and Rs. 2,059/- from the sale of animals including three pairs of bullocks. The owners of the two wells in whose case, the loan accounts were closed down by paying off the entire outstanding loans on their accounts from the sale of lands belonged to the lower holding-size group (from 10.1 to 20.0 acres) and these two wells were from dry wells and failed wells.

It is further seen that in the case of dry wells, a major portion of the recovery was from the agricultural income, non-agricultural income and liquidation of assets, in the case of failed wells, from the liquidation of assets and society loan and in the case of hard rocked wells, from the non-agricultural income and bank loan.

5.5 (vi) Requirements of Additional Funds for further Deepening and for Construction of Wells and the acreage that can be rebrought under irrigation

Inquiries made in connection with the work of further deepening and construction of wells that have gone dry and the possibility of rebringing these wells under irrigation reveal that out of the 33 dry wells, 30 wells require further deepening of about 10 feet to 18 feet which will involve a cost of Rs. 41,800/- estimated on the prevailing rates of labour and material, roughly working out to Rs.1400 per well as could be seen from Table 5.19.

Table 5.19: Showing Additional Funds required for further Deepening and for construction in respect of Dry Wells, according to size of loans

'no' indicates number of wells.  
'amt' indicates rupees.

Gr- oup No.	Size of loan Rs.	Funds requir- ed for further deepening		Funds requir- ed for construction		Acreage that can be re- brought under irrigation (acres)
		no	amt	no	amt	
1	Upto 1000	1	1,500	-	-	5
2	1001 to 2000	8	10,200	4	4,300	19
3	2001 to 3000	16	23,000	3	1,700	53
4	3001 to 4000	5	7,100	1	700	18
Total of 4 groups		30	41,800	8	6,700	95

In the case of 3 out of 33 dry wells, further deepening was not possible due to extremely hard rock.

Construction of wells and Tharoles was required to be done in the case of 8 wells, of which, 4 wells required construction both of wells and Tharoles and another 4 wells whose Tharoles were already constructed required construction of wells only. The above construction-work involves a cost of about Rs. 6,700/-. Twenty-one dry wells were already constructed. In the case of one well, construction would have been possible, with the bank loan, but the same was misutilized.

On providing the additional funds of Rs. 41,800/- for further deepening of 30 wells and Rs. 6,700/- for construction of 8 wells, 95 acres of land can be rebrought under irrigation.

Effects of the drying of wells or unstriking of water in the wells were (i) the fall in agricultural production, (ii) mounting of overdues of the Bank, (iii) sale of lands and bullocks for repayment of bank loan instalments, (iv) diversion of the subsidiary incomes from labour, service, carting and business for repayment of bank loan instalments, the same, otherwise, would have been utilized for other purposes, (v) added burden of debts and lastly (vi) blocking of the investment in the wells.

#### 5.6 Wells that remained incomplete due to shortage of funds

Wells that remained incomplete due to the shortage of funds were 68 i.e. about 25 percent of the total sample wells. Of 68 incomplete wells, 56 were incomplete due to the shortage of funds for digging and construction, 3 wells were complete but could not be put to the use for lack of funds for purchase of bullocks (2 wells) and construction of irrigational channels (one well), and 8 wells remained incomplete due to shortage of funds for construction and carelessness of the owners. The construction of one well, which was half-completed, fell in.

#### 5.6 (i) Disbursement of Loan and Cost of Wells

The net amount of loan disbursed for these 68 wells was to the tune of Rs. 1,31,389/- and the expenses incurred on these wells amounted to Rs. 1,33,686/- as detailed in Table 5.20.

It is seen that 66 percent of the total cost was incurred on digging and the remaining 34 percent on the construction of wells, Tharole irrigational channels, bunds and on associated items. In the case of 24 wells, an additional amount of Rs. 16,661/- was spent, which is about 12.5 percent of the total cost of the wells, while in the case of 42 wells, an amount of Rs. 14,364/- out of total net amount of loan of Rs. 1,31,389/-, which is about 11 percent, was utilized for other purposes.

It is further seen that the percentage of the additional amount to the total cost was the highest in the lowest loan-size group No. 1 and the lowest in the loan-size group No. 2. On an average, it was 12.5 percent. The percentage of the loan utilized for other purposes to the net amount of loan was higher in the loan-size groups Nos. 1 and 3, while no loan was utilized for other purposes

shortage of funds, according to size of loan

'amt' indicates rupees. 'no' indicates number of wells.

Gr- oup No.	Size of loan		Total sam- ple wells	Loan issued	Deduc- tions	Net amount disbursed	Cost of digging	Cost of cons- truc- tion	Cost of Mot and asso- ciated costs	Cost of irriga- tion channels and bunds	Total cost
	Rs.		no	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	Upto	1,000	7	6,200	625	5,575	5,690	780	-	-	6,470
2	1,001 to	2,000	20	35,300	3,708	31,592	21,911	9,702	512	125	32,250
3	2,001 to	3,000	40	1,03,950	13,195	90,755	57,868	31,063	785	550	90,266
4	3,001 to	4,000	1	4,000	533	3,467	2,800	1,900	-	-	4,700
Total of 4 groups			68	1,49,450	18,061	1,31,389	88,269	43,445	1,297	675	1,33,686
Percent of total cost							66.03	32.50	0.97	0.50	100.00

Gr- oup No.	Size of loan		Additional amount spent		Loan utilized for other purposes		Percentage of addi- tional amount to total cost Rs.	Percentage of loan utilized for other purposes to net loan	Average cost per well Rs.
	Rs.		no	amt.	no	amt.			
1	Upto	1,000	1	1,770	6	875	27.36	15.70	924
2	1,001 to	2,000	8	3,039	11	2,381	9.42	7.54	1,612
3	2,001 to	3,000	14	10,619	25	11,108	11.76	12.24	2,257
4	3,001 to	4,000	1	1,233	-	-	26.23	-	4,700
Total of 4 groups			24	16,661	42	14,364	12.46	10.93	1,966



in the case of group No. 4 in which there was only one well and the net amount of Rs. 3,467/- received for it was not only utilized for the well but an additional amount of Rs. 1,233/- also was spent.

The average cost per well increased with the increasing order of loan-size. It was Rs. 924/- in the lowest loan-size group No. 1 and Rs. 4,700/- in the highest loan-size group No. 4.

Out of the total loan of Rs. 1,49,450/- sanctioned for 68 wells, (a) Rs. 1,25,500/- were sanctioned for wells incomplete due to shortage of funds for digging and construction, (b) Rs. 5,800/- for wells lacking funds for purchase of bullocks and construction of irrigational channels, (c) Rs. 15,750/- for wells which remained incomplete due to shortage of funds for construction of wells and carelessness on the part of the owners and (d) Rs. 2,400/- for the well which fell in. Three wells which remained unworked for lack of funds for purchase of bullocks and construction of irrigational channels were ready for the use of irrigation but could not be used in the absence of bullocks and irrigational channels. The percentage of the additional amount to the total cost in the case of (a), (b), (c) and (d) types of wells was 10.8, 11.9, 26.4 and nil respectively and the percentage of the loan used for other purposes to the net amount of loan was 9.7, 7.2, 19.0 and 30.0 percent respectively.

The average cost per well in respect of (a), (b), (c) and (d) types of wells was Rs. 1,995/-, Rs. 1,811/-, Rs. 1,878/- and Rs. 1,500/- respectively and the percentage of the utilization of loan (excluding the amount of loan consumed against family labour) to the net amount of loan was 90.3 percent, 92.8 percent, 81 percent and 70 percent respectively. On an average, it was about 89.07 percent

#### 5.6 (ii) Additional Amount Spent and its Sources

In addition to the bank loan received, an additional amount of Rs. 16,661/- was spent in the case of 24 wells out of 68 wells that remained incomplete due to the shortage of funds, which is 12.5 percent of the total cost incurred on these wells. The sources from which the above amount was raised are indicated in Table 5.21.

It is evident from the table that the principal source of raising the additional amount was the liquidation of assets which constituted about 42.7 percent of the total additional amount. The agricultural sources contributed about 29 percent, the non-agricultural sources 18 percent and the savings about 7.7 percent.

Out of 24 wells in whose case, the additional amount was spent, 19 wells were from the wells incomplete due to shortage of funds for digging and construction, one well from the wells incomplete for lack of funds for purchase of bullocks and construction of irrigational channels and 4 wells from the wells incomplete due to shortage of funds for construction and carelessness. The additional amount from the liquidation of assets was raised only in the case of the first and third types of wells, which was 47.54 percent and 35 percent of the total additional amount respectively. Out of Rs. 7,117/- from the liquidation of assets, Rs. 2,733/- in respect of 2 wells were from the sale of lands, Rs. 700/-

Table 5.21: Showing different sources of raising the additional amount in respect of wells, incomplete due to shortage of funds, according to size of holding

'no' indicates number of wells. 'amt.' indicates rupees.

Group No.	Size of holding (acres)	Total additional amount		Savings		Agricultural income		Non-agricultural income		Liquidation of assets		Private loan	
		no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
1	Upto 10.0	4	627	3	525	1	102	-	-	-	-	-	-
2	10.1 to 20.0	8	7,118	-	-	5	2,821	3	2,707	3	1,590	-	-
3	20.1 to 30.0	7	5,949	-	-	4	1,676	-	-	4	4,273	-	-
4	30.1 to 40.0	2	1,848	-	-	1	300	1	294	2	1,254	-	-
5	Above 40.0	3	1,119	2	752	-	-	-	-	-	-	1	367
Total of 5 groups		24	16,661	5	1,277	11	4,899	4	3,001	9	7,117	1	367
Percent of total			100.00		7.66		29.40		18.02		42.72		2.20

from the sale of gold and Rs. 3,680/- from the sale of animals including 5 pairs of bullocks. Out of Rs. 3001/- from the non-agricultural income, an amount of Rs. 2,701/- was from the source of service and Rs. 300/- from labour. The amount of Rs. 4,899/- from the source of agricultural income was out of the sale of agricultural produce. The lands sold belonged to the holding-size group No. 3.

The major source of raising additional amount in the lowest and the highest holding-size groups Nos. 1 and 5 was the source of past earnings; in the lower holding-size group No. 2, the agricultural and non-agricultural incomes and in groups Nos. 3 and 4 the liquidation of assets.

#### 5.6 (iii) Cost of Family Labour and Consumption of Loan against it

Family labour employed for the work of digging and of construction was in respect of 22 wells and 12 wells respectively. Table 5.22 indicates the cost of family labour and the amount of loan consumed against it.

It is seen that the total cost of family labour employed for the well-work amounted to Rs. 13,255/- of which 77 percent was for the work of digging and the remaining 23 percent for the construction-work. As against the total cost of family labour of Rs. 13,255/-, the amount of loan consumed was Rs. 5,952/-.

The amount of loan consumed against family labour was, on the whole, 4.53 percent of the net amount of loan. The highest loan-size group No. 1 in which there was only one well did not utilize the bank loan for consumption even though it had employed the family labour for the well-work. The percentage of the loan consumed against family labour was the highest (7.34 percent) in the lowest loan-size group No. 1 which had also the highest percentage of the cost of family labour to the total cost including the cost of family labour (14 percent). The percentage of the total cost of family labour to the total cost including the cost of family labour was much higher (9.02 percent) than that of the total amount of loan consumed against family labour to the total cost including the cost of family labour (4.53 percent).

The average cost per well including the cost of family labour was the lowest (Rs. 1,076/-) in the lowest loan-size group No. 1, while it was the highest (Rs. 5,000/-) in the highest loan-size group No. 4 in which there was only one well dug upto 52 feet and well constructed. On an average, the cost per well including the cost of family labour in respect of all the 68 wells was Rs. 2,161/-. The average cost per well including the cost of family labour in respect of wells that remained incomplete due to shortage of funds for the work of digging and construction was Rs. 2,178/-, in respect of wells that remained unworked due to lack of funds for purchase of bullocks and for construction of irrigational channels Rs. 2,186/-. in respect of wells that remained incomplete due to shortage of funds for well-construction and carelessness of owners Rs. 2,033/- and in respect of the well that fell in, it was Rs. 2,175/-.

The utilization of loans for 68 wells excluding the amount of loan consumed against family labour as observed in sub-section 5.6 (i) was 89.07 percent. On inclusion

Table 5.22: Showing cost of family labour and consumption of loan against it in respect of wells incomplete due to shortage of funds, according to size of loan

'no' indicates number of wells. 'amt.' indicates rupees.

Gr- oup No.	Size of loan Rs.		Cost of family labour for			Loan consumed against family labour		Perce- ntage of loan consumed against family labour to net amount of loan	Total cost of wells plus cost of family labour Rs.	Perce- ntage of cost of family labour to total cost of wells including cost of family labour	Average cost per well includ- ing cost of family labour Rs.		
			Digging work	Construction work	Total	no	amt.					no	amt.
1	Upto	1,000	3	960	1	100	1,060	3	409	7.34	7,530	14.08	1,076
2	1,001 to	2,000	6	2,115	3	800	2,915	6	1,235	3.91	35,165	8.29	1,758
3	2,001 to	3,000	13	7,130	7	1,850	8,980	10	4,308	4.75	99,246	9.05	2,481
4	3,001 to	4,000	-	-	1	300	300	-	-	-	5,000	6.00	5,000
Total of 4 groups			22	10,205	12	3,050	13,255	19	5,952	4.53	1,46,941	9.02	2,161
Percent of total cost				76.99		23.01							

of the amount of loan consumed against family labour (which was 4.53 percent of the total net amount of loan) in the total cost of wells, the percentage of the utilization of loan would be 93.60.

The utilization of loans including the amount of loan consumed against family labour in respect of wells incomplete due to shortage of funds for digging and construction was 94.35 percent, in respect of wells unworked due to lack of funds for purchase of bullocks and construction of irrigational channels 100 percent, in respect of wells incomplete due to shortage of funds for construction and carelessness of the owners 86.31 percent and in respect of the well which fell in 85.81 percent.

#### 5.6 (iv) Misutilization of Loan and its Purposes

Out of the net amount of loan of Rs. 1,31,389/- disbursed for 68 wells that remained incomplete due to shortage of funds for the well-work, an amount of Rs. 14,364/- was utilized for other purposes, of which, an amount of Rs. 5,952/- was consumed against family labour and the balance of Rs. 8,412/- was misutilized for purposes other than the well. The misutilization of loan was 6.40 percent of the total net amount of loan received. The purposes for which the loan was misutilized are given in Table 5.23.

It is evident from the table that the repayment of bank loan instalments and the consumption formed the major purposes of the misutilization of loan, each being 33.3 percent of the total loan misutilized. In the case of two wells, 2 pairs of bullocks were purchased with the bank loan of Rs. 1,096/- which is 13 percent of the total loan misutilized. An amount of Rs. 1,050/- was misutilized for repayment of the crop loan to the primary cooperative society in the case of 3 wells. In the case of one well, an amount of Rs. 225/- was misutilized for education.

It is seen from the table that the higher loan size group No. 3 misutilized, a major portion of the total loan misutilized.

In fact, the amount of loan, which was used for repayment of the bank loan instalments, cannot be said to have been misutilized. It is the amount of loan which without being utilized for the purpose for which it was granted, was recovered by the Bank or was required to be returned to the Bank.

#### 5.6 (v) Demand, Recovery and Overdue Position and Sources of Recovery

The total amount of loan sanctioned for 68 wells that remained incomplete due to shortage of funds for the well-work was Rs. 1,51,200/-. The demand for recovery of the loan instalments upto 30-6-1966 was Rs. 40,267/-. The recovery and the overdues against the demand for recovery were Rs. 30,452/- and Rs. 9,815/- respectively as indicated in Table 5.24.

The percentage of the recovery of the loan instalments to the demand for recovery is 75.63 which can be said to be good in view of the fact that no benefits accrued from these wells. The investment in these wells has been blocked and the bank loan has put the farmers in a very

Table 5.23: Showing purpose-wise misutilization of loan in respect of wells incomplete due to shortage of funds, according to size of loan

'no' indicates number of wells. 'amt.' indicates rupees.

Group No.	Size of loan Rs.	Total loan misutilized		Purchase of animals		Consumption		Marriage & education		Repayment of bank loan		Repayment of Society loan		Repayment of private loan	
		no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
1	Upto 1,000	3	4,666	-	-	3	416	-	-	1	50	-	-	-	-
2	1,001 to 2,000	7	1,146	-	-	5	471	-	-	3	475	-	-	1	200
3	2,001 to 3,000	21	6,800	2	1,096	11	1,914	1	225	10	2,280	3	1,050	1	235
4	3,001 to 4,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total of 4 groups		31	8,412	2	1,096	19	2,801	1	225	14	2,805	3	1,050	2	435
Percent of total			100.00		13.03		33.30		2.67		33.35		12.48		5.17

Table 5.24: Showing demand, recovery and overdue position in respect of wells incomplete due to shortage of funds as at 30-6-1966, according to size of loan

'no' indicates number of wells. 'amt.' indicates rupees.

Group No.	Size of loan Rs.	Total loan sanctioned		Demand for recovery		Recovery effected			Percentage of recovery to demand	Overdues				Percentage of defaulting wells to demand wells
		no	amt.	no	amt.	Prin- cipal amt.	Inte- rest amt.	Total amt.		Principal no	Principal amt.	Interest no	Interest amt.	
1	Upto 1,000	7	6,700	5	2,883	1,892	650	2,542	88.17	1	307	1	34	20.00
2	1,001 to 2,000	20	35,300	19	14,335	8,836	3,062	11,898	83.00	9	2,031	5	406	47.37
3	2,001 to 3,000	40	1,05,200	32	21,720	9,815	5,259	15,074	69.40	23	5,082	17	1,564	71.88
4	3,001 to 4,000	1	4,000	1	1,329	561	377	938	70.58	1	327	1	64	100.00
Total of 4 groups		68	1,51,200	57	40,267	21,104	9,348	30,452	75.63	34	7,747	24	2,068	59.65

difficult position not only from the view-point of added debt but from the strain generated from the repayment of bank loan instalments, on his existing deficit economy.

The percentage of the recovery of loan instalments to the demand for recovery decreased with the increasing order of loan-size and the percentage of the defaulting wells to the demand wells increased with the decreasing order of loan-size. The percentage of the defaulting wells to the demand wells, on the whole, was 59.65.

The different sources of recovery of the loan instalments and the amounts recovered from these sources are given in Table 5.25.

The recovery from the source of agricultural income was the highest (34.72). The recoveries from the sources of non-agricultural income and liquidation of assets were about 25.26 percent and 26.46 percent respectively.

Out of Rs. 10,574/- from the agricultural sources, an amount of Rs. 9,640/- was from the sale of agricultural produce and Rs. 934/- from the sale of milk. Of Rs. 7,691/- from the non-agricultural income, the source of labour contributed Rs. 5,142/-, the source of service Rs. 1,424/-, and the source of carting Rs. 1,125/-. Out of Rs. 8,057/- from the liquidation of assets, an amount of Rs. 5,312/- in the case of 4 wells was obtained from the sale of lands, Rs. 2,497/- from the sale of animals including 6 pairs of bullocks and Rs. 248/- from the sale of gold in the case of one well.

In the case of two wells the recovery of loan instalments was adjusted by debiting the loan accounts to which the unpaid amount of the second instalments was credited. The second instalment of loan was not obtained for these wells for reasons that one of the borrowers died and there was a dispute between his sons and the second borrower refused to take it as his sons did not work on the farm. The recovery made from this source was not genuine and was just a paper adjustment.

The main sources of the recovery in holding-size groups Nos. 1, 2 and 4 were the liquidation of assets and non-agricultural income, while in holding-size groups Nos. 3 and 5, the main source was the agricultural income.

Of the 68 wells which remained incomplete due to shortage of funds for the well-work, loan accounts of 3 wells were closed down by paying off the entire outstanding loans mainly from the sale of lands. These wells belonged to the lower holding-size groups 1 and 2 (2 wells from group No. 1 and one well from group No. 2). These three wells were from the wells that remained incomplete due to the shortage of funds for the work of digging and construction.

#### 5.6 (vi) Requirements of Additional Funds for further Digging and for Construction of Wells and Funds required for purchase of bullocks and for Construction of Irrigational Channels

Inquiries made in connection with the work of further digging and construction of wells that remained incomplete due to shortage of funds for further digging and construction



**Table 5.24:** Showing demand, recovery and overdue position in respect of wells incomplete due to shortage of funds as at 30-6-1966, according to size of loan

'no' indicates number of wells. 'amt.' indicates rupees.

Group No.	Size of loan Rs.	Total loan sanctioned		Demand for recovery		Recovery effected			Percentage of recovery to demand	Overdues				Percentage of defaulting wells to demand wells
		no	amt.	no	amt.	Prin- cipal amt.	Inte- rest amt.	Total amt.		Principal no	amt.	Interest no	amt.	
1	Upto 1,000	7	6,700	5	2,883	1,892	650	2,542	88.17	1	307	1	34	20.00
2	1,001 to 2,000	20	35,300	19	14,335	8,836	3,062	11,898	83.00	9	2,031	5	406	47.37
3	2,001 to 3,000	40	1,05,200	32	21,720	9,815	5,259	15,074	69.40	23	5,082	17	1,564	71.88
4	3,001 to 4,000	1	4,000	1	1,329	561	377	938	70.58	1	327	1	64	100.00
Total of 4 groups		68	1,51,200	57	40,267	21,104	9,348	30,452	75.63	34	7,747	24	2,068	59.65

101

difficult position not only from the view-point of added debt but from the strain generated from the repayment of bank loan instalments, on his existing deficit economy.

The percentage of the recovery of loan instalments to the demand for recovery decreased with the increasing order of loan-size and the percentage of the defaulting wells to the demand wells increased with the decreasing order of loan-size. The percentage of the defaulting wells to the demand wells, on the whole, was 59.65.

The different sources of recovery of the loan instalments and the amounts recovered from these sources are given in Table 5.25.

The recovery from the source of agricultural income was the highest (34.72). The recoveries from the sources of non-agricultural income and liquidation of assets were about 25.26 percent and 26.46 percent respectively.

Out of Rs. 10,574/- from the agricultural sources, an amount of Rs. 9,640/- was from the sale of agricultural produce and Rs. 934/- from the sale of milk. Of Rs. 7,691/- from the non-agricultural income, the source of labour contributed Rs. 5,142/-, the source of service Rs. 1,424/-, and the source of carting Rs. 1,125/-. Out of Rs. 8,057/- from the liquidation of assets, an amount of Rs. 5,312/- in the case of 4 wells was obtained from the sale of lands, Rs. 2,497/- from the sale of animals including 6 pairs of bullocks and Rs. 248/- from the sale of gold in the case of one well.

In the case of two wells the recovery of loan instalments was adjusted by debiting the loan accounts to which the unpaid amount of the second instalments was credited. The second instalment of loan was not obtained for these wells for reasons that one of the borrowers died and there was a dispute between his sons and the second borrower refused to take it as his sons did not work on the farm. The recovery made from this source was not genuine and was just a paper adjustment.

The main sources of the recovery in holding-size groups Nos. 1, 2 and 4 were the liquidation of assets and non-agricultural income, while in holding-size groups Nos. 3 and 5, the main source was the agricultural income.

Of the 68 wells which remained incomplete due to shortage of funds for the well-work, loan accounts of 3 wells were closed down by paying off the entire outstanding loans mainly from the sale of lands. These wells belonged to the lower holding-size groups 1 and 2 (2 wells from group No. 1 and one well from group No. 2). These three wells were from the wells that remained incomplete due to the shortage of funds for the work of digging and construction.

#### 5.6 (vi) Requirements of Additional Funds for further Digging and for Construction of Wells and Funds required for purchase of bullocks and for Construction of Irrigational Channels

Inquiries made in connection with the work of further digging and construction of wells that remained incomplete due to shortage of funds for further digging and construction

Table 5.25: Showing source-wise recovery of loan instalments in respect of wells incomplete due to shortage of funds, according to size of holding

'no' indicates number of wells. 'amt.' indicates rupees.

Gr- oup No.	Size of holding (acres)	Total loan recovery		Agricuiltu- ral income		Non-agricul- tural income		Liquidation of assets		Out of bank loan		II instal- ment of loan adjusted		Society loan	
		no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
1	Upto 10.0	8	5,222	-	-	3	1,337	3	3,408	2	477	-	-	-	-
2	10.1 to 20.0	19	9,695	7	2,049	6	2,838	4	2,945	5	1,038	2	825	-	-
3	20.1 to 30.0	13	7,707	7	4,880	3	872	3	1,229	3	726	-	-	-	-
4	30.1 to 40.0	3	2,123	-	-	3	1,648	2	475	-	-	-	-	-	-
5	Above 40.0	7	5,705	5	3,645	2	996	-	-	2	564	-	-	1	500
Total of 5 groups		50	30,452	19	10,574	17	7,691	12	8,057	12	2,805	2	825	1	500
Percent of total		100.00		34.72		25.26		26.46		9.21		2.71		1.64	

of wells reveal that 56 wells require further digging and construction from 10 feet to 20 feet and of which 31 require construction of wells. Table 5.26 gives the estimated cost required for the well-work in respect of the above wells.

In the case of 8 wells that remained incomplete due to shortage of funds for construction and also due to carelessness of their owners, additional funds cannot be recommended, and the well which fell in is also ignored from the wells requiring further work and additional funds, since it will involve a sizeable additional fund for which the owner will not be eligible for it for want of adequate mortgage security. In respect of 3 wells, since the lands (in which the wells were dug) were sold out, additional funds for further work also are not considered.

The additional funds required for further digging-work in respect of 56 wells and for construction-work in respect of 31 wells are estimated at Rs. 76,400/- and Rs. 26,900/- respectively.

Construction both of the wells and Tharoles were required in the case of 23 wells; construction of only Tharoles was required in the case of 7 wells and the construction of only well in the case of one well.

Out of the 56 wells requiring further digging and construction, 3 wells also require additional funds of Rs. 1,500/- for purchase of bullocks (Rs. 1,000/- for 2 wells) and construction of irrigation channels (Rs. 500/- for one well).

On providing the additional funds of Rs. 76,400/- for further digging and Rs. 26,900/- for construction-work in respect of 56 wells, and also Rs. 1,500/- in respect of 3 wells for purchase of bullocks and for construction of irrigational channels, 197 acres of land will come under irrigation and the investment which is blocked in the wells at present, will yield returns.

#### 5.7 Wells that remained incomplete due to Misutilization of Loan

Wells that remained incomplete due to the misutilization of the bank loan were 53 i.e. 19.13 percent of the total sample wells. Of 53 wells, in the case of four wells there was the complete misutilization of the loan and in the case of the remaining wells, some well-work was done with the amount of the first instalment of the loan or a part thereof and the amount of the second instalment of the loan was completely misutilized with the exception of a few cases where a part of the second instalment of the loan was utilized for the well-work.

##### 5.7 (i) Disbursement of Loan and Cost of Wells

The net amount of loan disbursed for these 53 wells was Rs. 1,14,574/- and the expenses incurred on these wells amounted to Rs. 44,444/- as detailed in Table 5.27.

It is evident from the table that 61.21 percent of the total net amount of loan was utilized for other purposes. The percentage of the loan utilized for the other purposes decreased with the increasing order of the size of

Table 5.26: Showing additional funds required for further digging and for construction in respect of wells incomplete due to shortage of funds, according to size of loans

'no' indicates number of wells. 'amt.' indicates rupees.

Group No.	Size of loan	Funds required for further digging		Funds required for construction		Funds required for purchase of bullocks and construction of irrigational channels		Acreage that can be brought under irrigation (acres)
		no	amt.	no	amt.	no	amt.	
1	Upto 1,000	6	8,500	6	5,800	1	500	21
2	1,001 to 2,000	17	24,000	9	7,400	1	500	66
3	2,001 to 3,000	32	42,400	16	13,700	1	500	107
4	3,001 to 4,000	1	1,500	-	-	-	-	3
Total of 4 groups		56	76,400	31	26,900	3	1,500	197

Table 5.27: Showing expenditure on various items in respect of wells incomplete due to misutilization of loans according to size of loan

'amt.' indicates rupees. 'no' indicates number of wells

Gr- oup No.	Size of loan	Total com- plete wells	Loan issued	Deduc- tions	Net amount disburs- ed	Cost of digg- ing	Cost of cons- truc- tion	Cost of Mot and asso- cia- ted cost	Cost of irri- ga- tion- al cha- nnels and bunds	Total cost	Loan utilized for other purposes		Per- cen- tage of loan utili- zed for other purpo- ses to net loan	Ave- rage cost per well
											no	amt.		
1	Upto 1,000	2	1,500	148	1,352	-	-	-	-	-	2	1,352	100.00	-
2	1,001 to 2,000	6	9,250	1,051	8,199	1,825	-	-	-	1,825	6	6,374	77.74	304
3	2,001 to 3,000	35	82,800	10,868	71,932	23,279	3,570	125	-	26,974	35	44,958	62.50	771
4	3,001 to 4,000	10	37,600	4,509	33,091	13,570	1,925	150	-	15,645	10	17,446	52.72	1,564
Total of 4 groups		53	1,31,150	16,576	1,14,574	38,674	5,495	275	-	44,444	53	70,130	61.21	839
Percent of total cost						87.02	12.36	0.62	100.00					

loan. It was 100 percent in the lowest loan-size group No. 1; while in the highest loan-size group No. 4, the loan utilized for the other purposes was 52.72 percent of the net amount of loan. The average cost per well increased with the increasing order of the loan-size. It was the lowest (Rs. 304/-) in the lower loan-size group No. 2 and the highest (Rs. 1564/-) in the highest loan-size group No. 4. On an average, it was Rs. 839/-.

The amount of loan incurred on the digging-work was 87.02 percent of the total cost, while it was 12.98 percent incurred on the construction-work and purchase of Mot and associated items.

The loan utilized for the purpose of wells in respect of these wells was only 38.79 percent of the total loan received.

#### 5.7 (ii) Cost of Family Labour and Consumption of Loan against it

Family labour employed for the work of digging was in respect of only 10 wells while no family labour was employed for the construction-work. The cost of the family labour and the amount of loan consumed against it are given in Table 5.28.

It is seen that the total cost of the family labour employed for the well-work amounted to Rs. 2,430/- and the equal amount of loan was consumed against the family labour.

The amount of loan consumed against family labour was, on the whole, 2.12 percent of the net amount of loan. The percentage of the loan consumed against the family labour to the net loan and of the cost of the family labour to the total cost of the wells including the cost of family labour increased with the increasing order of loan-size.

The average cost per well including the cost of family labour was the lowest (Rs. 314/-) in the lower loan-size group No. 2 and the highest (Rs. 1,655/-) in the highest loan size group No. 4. On the whole, it was Rs. 884/-.

The utilization of the loan including the amount of loan consumed against the family labour in respect of these 53 wells was 40.91 percent of the total net amount of loan received, and the amount of loan misutilized was 59.09 percent.

#### 5.7 (iii) Misutilization of Loan and its Purposes

Out of the net amount of loan of Rs. 1,14,574/- disbursed for the 53 wells, an amount of Rs. 70,130/- was utilized for the other purposes of which, an amount of Rs. 2,430/- was consumed against the family labour and the balance of Rs. 67,700/- was misutilized for purposes other than the well. The misutilization of the loan was to the extent of 59.09 percent of the total net loan received. The purposes for which the loan was misutilized are given in Table 5.29.

It is evident from the table that the amount of loan misutilized for the consumption purpose was the highest i.e. 29.01 percent of the total loan misutilized, and next to it was the repayment of the various loans - the bank

Table 5.28: Showing cost of family labour and consumption of loan against it in respect of wells incomplete, due to misutilization of loan, according to size of loan

'no' indicates number of wells. 'amt.' indicates rupees.

Gr- oup No.	Size of loan	Cost of family labour for			Loan consum- ed against family labour		Percen- tage of loan consumed against family labour to net amount of loan	Total cost of wells plus cost of family labour Rs.	Percen- tage of cost of family labour to total cost of wells in- cluding family labour	Average cost of well includ- ing cost of family labour Rs.		
		Digging work no	amt.	Construc- tion work no	amt.	Total amt.					no	amt.
1	Upto 1,000	-	-	-	-	-	-	-	-	-		
2	1,001 to 2,000	1	60	-	-	60	1	60	0.73	1,885	3.18	314
3	2,001 to 3,000	7	1,470	-	-	1,470	7	1,470	2.04	28,444	5.17	813
4	3,001 to 4,000	2	900	-	-	900	2	900	2.72	16,545	5.44	1,655
Total of 4 groups		10	2,430	-	-	2,430	10	2,430	2.12	46,874	5.18	884
Percent of total cost		100.00		100.00								



Table 5.29: Showing purpose-wise misutilization of loan in respect of wells incomplete due to misutilization of loan, according to size of loan.

'no' indicates number of wells. 'amt.' indicates rupees.

Group No.	Size of loan		Total loan misutilized		Purchase of animals		Investment in lands and houses		Investment in business		Consumption	
	Rs.		no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
1	Upto	1,000	2	1,352	-	-	1	942	-	-	1	410
2	1,001 to	2,000	6	6,314	2	675	-	-	1	1,039	5	3,534
3	2,001 to	3,000	35	43,488	12	6,799	2	2,531	3	3,889	27	12,737
4	3,001 to	4,000	10	16,546	1	200	2	2,467	-	-	7	2,958
Total of 4 groups			53	67,700	15	7,674	5	5,940	4	4,928	40	19,639
Percent of total				100.00		11.34		8.77		7.28		29.01

Group No.	Size of loan		Marriage and education		Repayment of bank loan		Repayment of Society loan		Repayment of private loan	
	Rs.		no	amt.	no	amt.	no	amt.	no	amt.
1	Upto	1,000	-	-	-	-	-	-	-	-
2	1,001 to	2,000	-	-	2	216	-	-	2	850
3	2,001 to	3,000	2	1,684	14	3,884	12	5,750	12	6,214
4	3,001 to	4,000	5	5,663	7	2,603	3	1,100	3	1,555
Total of 4 groups			7	7,347	23	6,703	15	6,850	17	8,619
Percent of total				10.85		9.90		10.12		12.73

loan (9.90 percent), the Society loan (10.12 percent) and the private loan (12.73 percent), together 31.62 percent. The amount of Rs. 7347/- (10.85 percent) in the case of 7 wells was misutilized for marriages, and Rs. 5,940/- (8.77 percent) misutilized for the purchase of lands in respect of 4 wells and on the construction of a house in the case of one well. An amount of Rs. 4,928/- (7.28 percent) was misutilized for the purpose of business - purchase of bicycles for the purpose of hiring in the case of one well and provision stores in the case of 3 wells. The amount of loan misutilized for the purchase of animals - bullocks in the case of 12 wells and milch cattle in the case of 3 wells was Rs. 7,674/- (11.34 percent).

Out of 277 sample wells, the misutilization of loans occurred in respect of 53 wells i.e. to the extent of 19.13 percent of the total wells. The lack of supervision over the utilization of loans was the main reason for the misapplication of loans. Till 1964-65, the verification of the work of the first instalment of loan was done by the Gram Sevaks who used to recommend the disbursement of the second instalment of loan on receiving some gratification from the borrowers irrespective of whether the loan received was fully utilized or not for the purpose for which it was granted. From 1965-66, the work of verification of the first instalment of loan has been assigned to the Bank Inspectors/Supervisors who now exercise the supervision over the utilization of the first instalment of loan. Unless the work expected to be done with the amount of the first instalment of loan, is done, the second instalment of loan is not recommended by them. There has been, thus, effective supervision over the utilization of the first instalment of loan. But as regards the second instalment of loan, the supervision over its utilization was lacking. On disbursement of the second instalment of loan, the Bank Inspectors/Supervisors feel that their job was over. Thereafter, they visit the borrowers for recovery purposes. If the Bank exercises effective supervision over the utilization of the second instalment of loan also as suggested in Chapter VII, there will be no scope for misapplication of loans.

The percentage distribution of the loan misutilized to the net amount of loan received in respect of these wells is presented in Table 5.30.

The table reveals that the highest concentration of misutilized loans was in the percentage group 60.1 to 70.0, followed by those in percentage groups 80.1 to 100.0, 40.1 to 50.0 and 70.1 to 80.0 in that order.

When considered according to loan-size groups, it is observed that the highest concentration of misutilized loans in the loan-size group No. 3 was in the percentage group 60.1 to 70.0 closely followed by the percentage groups 70.1 to 80.0 and 80.1 to 100.0.

The percentage of the loan misutilized to the net loan received decreased with the increasing order of loan-size groups. It was the highest (100 percent) in the lowest loan-size group No. 1 and the lowest (50 percent) in the highest loan-size group No. 4. On the whole, it was 59.09 percent.

Table 5.30: Showing amounts misutilized according to percentage (of loan misutilized to net amount of loan received) groups in respect of wells incomplete due to misutilization of loan, according to size of loan.

'no' indicates number of wells. 'amt.' indicates rupees.

Gr- oup No.	Size of loan	Total net loan disbursed		Total loan misuti- lized		Amount misutilized according to percentage of loan misutilized to net loan received										Perce- ntage of total loan misuti- lized to total net loan		
		no	amt.	no	amt.	Below	40.1 to	50.1 to	60.1 to	70.1 to	80.1 to	no	amt.	no	amt.			
						and upto 40 per- cent	50.0 percent	60.0 percent	70.0 percent	80.0 percent	100.0 percent							
1	Upto 1,000	2	1,352	2	1,352	-	-	-	-	-	-	-	-	-	2	1,352	100.00	
2	1,001 to 2,000	6	8,199	6	6,314	-	-	-	-	-	-	3	2,883	1	511	2	2,920	77.01
3	2,001 to 3,000	35	71,932	35	43,488	4	2,395	7	7,271	4	4,434	7	10,281	6	9,895	7	9,212	60.46
4	3,001 to 4,000	10	33,091	10	16,546	2	2,041	3	4,191	2	3,581	3	6,733	-	-	-	-	50.00
Total of 4 groups		53	1,14,574	53	67,700	6	4,436	10	11,462	6	8,051	13	19,897	7	10,406	11	13,484	59.09
Percentage of total loan misutilized				100.00	6.55	16.93	11.84	29.39	15.37	19.92								

### 5.7 (iv) Demand, Recovery and Overdue Position and Sources of Recovery

The total amount of loan sanctioned for these 53 wells was Rs. 1,41,900/-. The demand for recovery of the loan instalments upto 30-6-1966 was Rs. 38,732/- in respect of 45 wells and the loan instalments in the case of 8 wells were not due for recovery upto 30-6-1966. The recovery effected and the overdues against the demand for recovery for the period ending 30-6-1966 stood as indicated in Table 5.31.

It is seen that the overdues in relation to the demand for recovery of the loan instalments were 26.27 percent which is high and the number of the defaulting wells to the demand wells was as high as 57.78 percent. The percentage of the recovery to the demand was the lowest (57.63 percent) in the highest loan size-group No. 4, while there was 100 percent recovery in the lowest loan-size group No. 1. The highest percentage of the defaulting wells to the demand wells (66.67 percent) was in the case of higher loan-size group No. 4.

The different sources of recovery of the loan instalments and the amounts raised for the recovery from these sources are given in Table 5.32.

The recovery from the liquidation of assets was the highest (34.85 percent) and the next to it from the agricultural income (26.01 percent). The recovery made from the amount of the second loan instalments was 23.47 percent and from the non-agricultural income 7.08 percent which was the lowest. In the case of 3 wells, the recovery was adjusted by debiting the loan accounts to which the unpaid amounts of the second instalments of loan were credited. For these 3 wells, the second instalments of loan were not released due to the misutilization of the first instalments of loan, but were credited to their loan accounts. When the recovery of loan instalments did not forthcome in cash, the loan accounts were debited to the extent of the demand for recovery. This is a paper adjustment.

Out of Rs. 7,427/- from the source of agriculture, an amount of Rs. 5,543/- was from the sale of agricultural produce and Rs. 1,884/- from the sale of milk (in the case of two wells). Of Rs. 2,023/- from the source of non-agricultural income, Rs. 829/- from the source of service and Rs. 592/- from labour and Rs. 602/- from the source of business were raised for recovery of the loan instalments. Out of Rs. 9,952/- from the liquidation of assets, Rs. 8,959/- were from the sale of lands in the case of 3 wells and Rs. 993/- from the sale of animals in the case of another 3 wells.

The loan accounts in the case of 3 wells out of 53 wells, were closed down by paying off the entire outstanding loans from the amounts obtained from the sale of lands. These three wells belonged to the holding-size groups Nos. 3, 4 and 5.

The misutilization of loan rendered the investment of Rs. 46,874/- in these half completed wells unproductive. The bank loan obtained for the purpose of wells has become an added burden of debts to the well-owners. For the

Table 5.31: Showing demand, recovery and overdue position in respect of wells incomplete due to misutilization of loan as at 30-6-1966 according to size of loan

'amt.' indicates rupees. 'no' indicates number of wells.

Group No.	Size of loan		Total loan sanctioned		Demand for recovery		Recovery effected			Percentage of recovery to demand	Overdues				Percentage of defaulting wells to demand wells
	no	amt.	no	amt.	no	amt.	Principal amt.	Interest amt.	Total amt.		Principal no	Principal amt.	Interest no	Interest amt.	
1	Upto	1,000	2	2,000	2	886	603	283	886	100.00	-	-	-	-	nil
2	1,001 to	2,000	6	10,100	5	2,862	1,264	704	1,968	68.76	3	677	2	217	60.00
3	2,001 to	3,000	35	92,200	29	26,679	15,627	5,291	20,918	78.41	17	4,450	14	1,311	58.62
4	3,001 to	4,000	10	37,600	9	8,305	3,099	1,687	4,786	57.63	6	2,608	4	911	66.67
Total of 4 groups			53	1,41,900	45	38,732	20,593	7,965	28,558	73.73	26	7,735	20	2,439	57.78

Table 5.32: Showing source-wise recovery of loan instalments in respect of wells incomplete due to misutilization of loan according to size of holding

'no' indicates number of wells. 'amt.' indicates rupees..

Group No.	Size of holding		Total loan recovery		Agricultural income		Non-agricultural income		Liquidation of assets		Out of Bank loan		II instalment of loan adjusted	
			no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
1	Upto	10.0	3	1,106	-	-	1	602	-	-	1	124	1	380
2	10.1 to	20.0	14	5,973	4	1,772	1	281	2	493	10	2,506	1	921
3	20.1 to	30.0	10	7,902	4	2,781	3	1,140	1	2,790	4	1,191	-	-
4	30.1 to	40.0	6	5,917	3	1,657	-	-	1	2,665	5	1,595	-	-
5	Above	40.0	6	7,660	3	1,217	-	-	2	4,004	3	1,287	1	1,152
Total of 5 groups			39	28,558	14	7,427	5	2,023	6	9,952	23	6,703	3	2,453
Percent of total				100.00		26.01		7.08		34.85		23.47		8.59

purpose of recovery of the bank loan, three borrowers were required to sell out the pieces of their lands.

### 5.8 Wells whose work was in progress

Wells whose work was in progress in 1966-67 were 13 out of 277 sample wells. Of 13 wells, the digging-work of 6 wells was completed and the construction-work was in progress and in the case of 7 wells, digging work was in progress. Requirements of additional funds for further work in respect of these wells were not considered as their original work expected to be done with the bank loan was in progress.

#### 5.8 (i) Disbursement of Loan and Cost of Wells

The net amount of loan disbursed for these 13 wells was Rs. 30,091/- and the expenses so far incurred on the digging and construction-work amounted to Rs. 20,475/-. The item-wise expenses are given in Table 5.33.

It is seen that out of the net amount of loan of Rs. 30,091/-, an amount of Rs. 19,590/- (excluding the additional amount of Rs. 885/- spent) was incurred on the wells, Rs. 6,002/- were utilized for other purposes and a sum of Rs. 4,499/- was unspent (i.e. in hand) in the case of 7 wells.

Out of Rs. 20,475/- incurred on the wells, 69.82 percent was on the digging-work, 27.37 percent on the construction-work and 2.81 percent on the associated items. The additional amount spent on wells was 2.94 percent of the total cost incurred so far. The loan utilized for the other purposes was 19.95 percent of the net loan received.

The percentage of loan utilized for the other purposes was higher in lower loan-size group No. 2 and lower in higher loan-size group No. 3.

The average cost per well incurred so far was Rs. 1,012/- in lower loan-size group No.2 and Rs.1,677/- in group No. 3, and on the whole, it was Rs. 1,575/-.

The percentage of the utilization of loan for wells excluding the loan consumed against family labour was on the whole 80.05 percent of the net loan subject to the utilization of the cash of Rs. 4,499/- in hand only for the well-work.

#### 5.8 (ii) Additional Amount Spent and its Sources

In addition to the bank loan received, an additional amount of Rs. 885/- in the case of 2 wells was spent. These two wells belonged to the holding-size group Nos. 2 and 5. The additional amount raised was from the sale of agricultural produce in respect of both the wells.

#### 5.8 (iii) Cost of Family Labour and Consumption of Loan against it

Family labour employed for the work of digging and of construction was in the case of 5 wells and 3 wells respectively. The cost of family labour and the loan consumed against it are given in Table 5.34.

Table 5.33: Showing item-wise expenses incurred in respect of wells whose work was in progress, according to size of loan.

'no' indicates number of wells. 'amt.' indicates rupees.

Gr- oup No.	Size of loan		Total sample wells	Loan issued	Deduc- tions	Net loan disbursed	Cost of digging	Cost of cons- truction	Cost of Mot and associa- ted cost	Cost of irriga- tional channels & bunds	Total cost
	Rs.		no	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	Upto 1,000		-	-	-	-	-	-	-	-	-
2	1,001 to 2,000		2	4,000	525	3,475	1,025	800	200	-	2,025
3	2,001 to 3,000		11	31,100	4,484	26,616	13,270	4,805	325	50	18,450
4	3,001 to 4,000		-	-	-	-	-	-	-	-	-
Total of 4 groups			13	35,100	5,009	30,091	14,295	5,605	525	50	20,475
Percent of total cost							69.82	27.37	2.56	0.25	100.00

Gr- oup No.	Size of loan		Additional amount spent		Loan utilized for other purposes		Cash in hand	Percentage of addition- al amount to total cost	Percentage of loan utilized for other purposes to net loan	Average cost per well Rs.
	Rs.		no	amt.	no	amt.				
1	Upto 1,000		-	-	-	-	-	-	-	-
2	1,001 to 2,000		-	-	2	875	575	-	25.18	1,012
3	2,001 to 3,000		2	885	9	5,127	3,924	3.33	19.26	1,677
4	3,001 to 4,000		-	-	-	-	-	-	-	-
Total of 4 groups			2	885	11	6,002	4,499	2.94	19.95	1,575



Table 5.34: Showing cost of family labour and loan consumed against it in respect of wells whose work was in progress, according to size of loan

'no' indicates number of wells. 'amt.' indicates rupees.

Group No.	Size of loan		Cost of family labour for			Loan consumed against family labour		Percentage of loan consumed against family labour to net loan	Total cost of wells plus cost of family labour Rs.	Percentage of cost of family labour to total cost including cost of family labour	Average cost per well including cost of family labour Rs.		
	Rs.		Digging work	Construction work	Total	no	amt.						
1	Upto	1,000	-	-	-	-	-	-	-	-	-		
2	1,001 to	2,000	1	45	1	400	445	1	450	12.95	2,470	18.02	1,235
3	2,001 to	3,000	4	1,575	2	500	2,075	3	1,350	5.07	20,525	10.11	1,866
4	3,001 to	4,000	-	-	-	-	-	-	-	-	-	-	-
Total of 4 groups			5	1,620	3	900	2,520	4	1,800	5.98	22,995	10.96	1,769
Percent of total cost			64.29		35.71		100.00						

The total cost of the family labour employed for the well-work amounted to Rs. 2,520/- of which, 64.29 percent was for the work of digging and 35.71 percent for the construction-work. As against the cost of family labour of Rs. 2,520/-, the amount of loan consumed against family labour was Rs. 1,800/-. The loan consumed against family labour was, on the whole, 5.98 percent of the net loan received. The lower loan-size group No. 2 consumed the loan to the extent of 12.95 percent, while higher loan-size group No. 3 consumed 5.07 percent.

The percentage of the cost of family labour to the total cost of wells was higher (18.02 percent) in lower loan-size group No. 2, while it was lower (10.11 percent) in the higher loan-size group No. 3. On an average, it was 10.96 percent.

The average cost per well including the loan consumed against family labour was Rs. 1,235/- in the lower loan-size group No. 2 and Rs. 1,866/- in higher loan-size group No. 3. On the whole, it was Rs. 1,769/-.

The utilization of loan for these wells including the loan consumed against family labour was 86.03 percent of the net loan received.

#### 5.8 (iv) Misutilization of Loan and its Purposes

Out of the net amount of loan of Rs. 30,091/- disbursed for the wells, an amount of Rs. 6,002/- was utilized for other purposes, of which, an amount of Rs. 1,800/- was consumed against the family labour and the balance of Rs. 4,202/- was misutilized for purposes other than the well. The percentage of the misutilization of loan to the net amount of loan was 13.97 percent. The purposes for which the loan was misutilized are given in Table 5.35.

It is seen that the major purposes for which the loan was misutilized, were purchase of animals (bullocks), marriage and repayment of the various loans. The amount of loan misutilized for consumption was 13.47 percent of the total loan misutilized.

It is also seen that the amount of loan misutilized in lower loan size group No.2 was only for the consumption while in higher loan-size group No.3, the major portion was misutilized for the purchase of bullocks in the case of 2 wells and for the marriage in the case of one well.

#### 5.8 (v) Demand, Recovery and Overdue Position and Sources of Recovery

The total amount of loan sanctioned for the 13 wells was Rs. 36,600/-. The demand for recovery of the loan instalments was due from only 3 wells - one well from loan-size group No. 2 and the two wells from loan-size group No. 3 for the amounts of Rs. 214/- and Rs. 467/- respectively upto 30-6-1966. The recovery effected in respect of these wells was 100 percent; and the same was made from the amount of the second instalment of loan.

#### 5.9 Comparative Study of all Categories of Wells

This section makes a comparative study of all the five categories of wells described earlier as regard to

**Table 5.35:** Showing purpose-wise misutilization of loan in respect of wells whose work was in progress according to size of loan

'no' indicates number of wells. 'amt.' indicates rupees.

Group No.	Size of loan Rs.	Total loan misutilized		Purchase of animals		Consumption		Marriage and education		Repayment of bank loan		Repayment of Society loan		Repayment of private loan	
		no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
1	Upto 1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	1,001 to 2,000	1	425	-	-	1	211	-	-	1	214	-	-	-	-
3	2,001 to 3,000	8	3,777	2	1,175	2	355	1	1,100	2	467	1	300	2	380
4	3,001 to 4,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total of 4 groups		9	4,202	2	1,175	3	566	1	1,100	3	681	1	300	2	380
Percent of total		100.00		27.96		13.47		26.18		16.21		7.14		9.84	

disbursement of loans, cost of wells, additional amounts spent, sources of additional amounts, costs of family labour, misutilization of loans, purposes of misutilization, recovery and overdue position, sources of recovery of loan, additional funds required for further deepening and for construction of wells and additional acreage that can be brought under irrigation.

It is observed in the preceding sections that out of 277 sample wells, 92 wells were operating in 1966-67, 51 wells have gone dry or could not strike water, 68 wells remained incomplete due to shortage of funds, 53 wells remained incomplete due to misutilization of loans and 13 wells were in progress.

### 5.9 (i) Disbursement of Loans and Costs of Wells

The quantum of loans disbursed in respect of all the categories of sample wells were of the order of Rs. 5,75,575/- and the expenses incurred on the various items relating to wells were to the tune of Rs. 5,36,300/-, of which, the additional amount spent amounted to Rs. 93,169/- in respect of 99 wells. The amount of loan utilized for other purposes was of the size of Rs. 1,27,945/- in respect of 172 wells.

The loans issued and disbursed, expenses incurred on the various items, the additional amounts spent and the amount of loan utilized for other purposes in respect of all the categories of sample wells are given in Table 5.36.

It is evident from the table that the investment of loan in the working wells was 32.97 percent of the total loans issued, which only was productive. The investment in respect of wells that have gone dry or could not strike water was 18.68 percent and in respect of wells that remained incomplete due to shortage of funds it was to the extent of 22.89 percent of the total loan issued. 20.09 percent of the total loan issued was in respect of those wells that remained incomplete due to the misutilization of loans. The investment in the wells whose work was in progress was 5.37 percent.

Of the total cost of Rs. 5,36,300/-, 64.24 percent was incurred on the work of digging, 30.82 percent on the construction-work of wells, 3.42 percent on the cost of Mot and associated items and 1.50 percent on the construction of irrigational channels and bunds.

The additional amount incurred on the well-work was 17.37 percent of the total cost of wells. The additional amount spent in respect of the working wells was the highest (23.12 percent) and in respect of wells that have gone dry or could not strike water it was 21.6 percent of their total cost. In respect of wells that remained incomplete due to shortage of funds, the additional amount spent and the average loan disbursed per well both were lower than those in the previous two categories of wells.

The percentage of the utilization of loan to the net amount of loan disbursed was the highest (89.07 percent) in the case of wells incomplete due to shortage of funds, it was 88.04 percent in the case of the working wells and 86.54 percent in the case of wells that have gone dry or could not strike water. 61.21 percent of the net loan

Table 5.36: Showing issue and disbursement of loans, cost of wells, additional amounts spent and loans utilized for other purposes in respect of all sample wells, according to category of wells  
'no' indicates number of sample wells. 'amt.' indicates rupees.

Group No.	Category of wells	Total sample wells	Loan issued	Deductions	Net loan disbursed	Digging cost	Construction cost	Cost of Mot & associated cost	Cost of irrigation channels	Total cost
		no	amt.	amt.	amt.	amt.	amt.	amt.	amt.	amt.
1	Working wells	92	2,15,250	24,462	1,90,788	1,20,669	79,625	11,659	6,542	1,18,495
2	Wells that have gone dry or could not strike water	51	1,21,950	13,217	1,08,733	82,738	31,126	4,561	775	1,19,200
3	Wells incomplete due to shortage of funds	68	1,49,450	18,061	1,31,389	88,269	43,445	1,297	675	1,33,686
4	Wells incomplete due to misutilization of loan	53	1,31,150	16,576	1,14,574	38,674	5,495	275	-	44,444
5	Wells in progress	13	35,100	5,009	30,091	14,295	5,605	525	50	20,475
Total of all 5 groups		277	6,52,900	* 77,325	5,75,575	3,44,645	1,65,296	18,317	8,042	5,36,300
Percent of total cost						64.26	30.82	3.42	1.50	100.00

\* The total deductions made by the Bank from the loans issued were Rs. 80,785/-, of which an amount of Rs. 3,460/- deducted towards making payment of society dues is taken in the amount of loan disbursed and shown as misutilized for repayment of ..Contd.

Table 5.36 - Contd.

Group No.	Category of wells	Additional amount spent		Loan utilized for other purposes		Percentage of loan issued to total loan issued	Percentage of additional amount to total cost	Percentage of loan utilized for other purposes to net loan	Average loan disbursed per well Rs.	Average cost per well Rs.	Cash on hand Rs.
		no	amt.	no	amt.						
1	Working wells	47	50,521	44	22,814	32.97	23.12	11.96	2,074	2,375	-
2	Wells that have gone dry or could not strike water	26	25,102	22	14,635	18.68	21.06	13.46	2,132	2,337	-
3	Wells incomplete due to shortage of funds	24	16,661	42	14,364	22.89	12.46	10.93	1,932	1,966	-
4	Wells incomplete due to misutilization of loan.	-	-	53	70,130	20.09	-	61.21	2,162	839	-
5	Wells in progress	2	885	11	6,002	5.37	2.94	19.95	2,315	1,575	4,499
Total of all 5 groups		99	93,169	172	1,27,945	100.00	17.37	22.23	2,078	1,936	4,499

disbursed was utilized for other purposes in the case of wells that remained incomplete due to the misutilization of loan. On the whole, the utilization of loan was 77.77 percent of the total loan disbursed for all the categories of wells.

The average loan disbursed per well was the highest (Rs. 2,315/-) in the case of wells whose work was in progress and the lowest (Rs. 1,932/-) in the case of wells incomplete due to shortage of funds.

The average cost per well was the highest (Rs. 2,375/-) in the case of working wells; Rs. 2,337/- in the case of wells that have gone dry or could not strike water and Rs. 1,966/- in the case of wells incomplete due to shortage of funds. As against the average loan of Rs. 2,162/- disbursed per well, the average cost incurred per well in the case of wells incomplete due to the misutilization of loan was only Rs. 839/-. The average cost per well in the case of the three previous categories of wells was higher than their average loan disbursed per well. As the work was in progress in respect of wells in progress, their average cost per well which is Rs. 1,575/- at the time of the survey, will increase on completion of their work. In the case of 7 out of these 13 wells an amount of Rs. 4,499/- was unspent (in hand).

#### 5.9 (ii) Additional Amount spent and its Sources

The total additional amount spent on 99 wells out of the 277 sample wells was Rs. 93,169/- (17.37 percent of the total cost of all sample wells. The sources from which the said amount was raised in respect of all the categories of wells are indicated in Table 5.37.

It is observed from the table that the additional amount raised from the agricultural source was the highest i.e. 35.26 percent of the total additional amount spent on the wells. The second highest source was the liquidation of assets (25.14 percent). The non-agricultural source contributed 14.20 percent and the source of savings 13.45 percent. 11.51 percent was from the source of private loans.

An amount of Rs. 32,854/- raised from the agricultural source was mainly from the sale of agricultural produce. Out of Rs. 13,228/- raised from the non-agricultural source, little over fifty percent (Rs. 7,510/-) was from business. Of Rs. 23,427/- from the source of liquidation of assets, more than fifty percent (Rs. 14,189/-) was from the sale of animals including 6 pairs of bullocks; Rs. 6,934/- from the sale of lands in respect of 5 wells and Rs. 2,300/- from the sale of gold in respect of 4 wells.

In the case of working wells, agriculture was the main source of the additional amount, while in the case of wells that have gone dry or could not strike water and wells incomplete due to shortage of funds, liquidation of assets was the major source.

#### 5.9 (iii) Cost of Family Labour and Consumption of Loan against it

Family labour was employed for the work of digging in the case of 95 wells and for the construction-work in service, Rs. 3,881/- from labour and Rs. 1,837/- from

Table 5.37: Showing sources of additional amount spent in respect of all sample wells according to category of wells.

'no' indicates number of sample wells. 'amt.' indicates rupees.

Group No.	Category of sample wells	Additional amount		Savings		Agriculture		Sources Non-agriculture		Liquidation of assets		Society loan		Private loan	
		no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
1	Working wells	47	50,521	7	7,227	26	21,579	9	6,594	14	7,587	1	404	7	7,130
2	Wells that have gone dry or could not strike water	26	25,102	5	4,028	11	5,491	5	3,633	10	8,723	-	-	4	3,227
3	Wells incomplete due to shortage of funds	24	16,661	5	1,277	11	4,899	4	3,001	9	7,113	-	-	1	367
4	Wells incomplete due to misutilization of loan	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Wells in progress	2	885	-	-	2	885	-	-	-	-	-	-	-	-
Total of all 5 groups		99	93,169	17	12,532	50	32,854	18	13,228	33	23,427	1	404	12	10,724
Percent of total		100.00		13.45		35.26		14.20		25.14		0.44		11.51	



the case of 66 wells. The cost of family labour employed and the amount of loan consumed against it in different categories of wells are given in Table 5.38.

It is observed from the table that the cost of family labour amounted to Rs. 55,243/- of which, 69.57 percent was for the work of digging and 30.43 percent for the construction of well, preparation of 'Dhanvpatti' (i.e. a run way for a team of bullocks) and for construction of irrigational channels and bunds.

The amount of loan consumed against family labour was Rs. 19,853/- which was 3.45 percent of the total net amount of loan received, while the cost of family labour employed was Rs. 55,243/- which was 9.34 percent of the total cost of wells including the cost of family labour.

The average cost per well including the cost of family labour was the highest (Rs.2,657/-) in the case of working wells, the second highest (Rs. 2,555/-) in the case of wells that have gone dry or could not strike water, and Rs. 2,161/- in the case of wells incomplete due to shortage of funds.

The utilization of loan for wells was the highest i.e. 93.60 percent of the total loan disbursed in the case of wells incomplete due to shortage of funds, the second highest (91.82 percent) was in the case of working wells, 88.80 percent in the case of wells that have gone dry or could not strike water, 86.03 percent in the case of wells whose work was in progress and only 40.91 percent in the case of wells incomplete due to the misutilization of loan. On the whole, it was 81.22 percent of the total net amount of loan disbursed for 277 sample wells.

#### 5.9 (iv) Misutilization of Loan and its Purposes

Out of the total net amount of loan disbursed for 277 sample wells, an amount of Rs. 1,27,945/- was utilized for other purposes, of which an amount of Rs. 19,853/- was consumed against family labour and the balance of Rs. 1,08,092/- i.e. 18.78 percent of the total net amount of loans received was misutilized for purposes other than the wells. The purposes for which the loan of Rs.1,08,092/- was misutilized are given in Table 5.39.

It is evident from the table that the amount of loan utilized for consumption was the highest i.e. 28.00 percent of the total loan misutilized. The repayment of various loans was 39.02 percent i.e. 16.74 percent for the repayment of bank loan instalments, 11.51 percent for the repayment of crop loan to the primary cooperative societies and 10.77 percent for the repayment of private loan. 12.59 percent was misutilized for the purchase of bullocks and milch cattle. 6.28 percent was misutilized for investment in the purchase of lands and the construction of a house. The bank loan misutilized for the purpose of business i.e. provision stores in the case of 3 wells and purchase of bicycles for hiring out in the case of one well was 4.56 percent.

The amount of loan misutilized was the highest (59.09 percent) in the case of wells that remained incomplete due to the misutilization of loan and it was the lowest i.e. 6.40 percent of the amount of loan disbursed

Showing purpose-wise misutilization of loan in respect of all sample wells, according to sample wells, according to category of wells

'no' indicates number of sample wells. 'amt.' indicates rupees.

Group No.	Category of sample wells	Cost of family labour employed for			Loan consumed against family labour		Percentage of loan consumption against family labour to net amount of loan	Total cost of wells plus cost of family labour Rs.	Percentage of cost of family labour to total cost of wells including cost of family labour	Average cost per well including cost of family labour Rs.		
		Digging work		Total	Construc- tion work							
		no	amt.		no	amt.					amt.	no
1	Working wells	40	17,497	37	8,450	25,947	23	7,211	3.78	2,44,442	10.61	2,657
2	Wells that have gone dry or could not strike water	18	6,680	14	4,411	11,091	7	2,460	2.26	1,30,291	8.51	2,555
3	Wells incomplete due to shortage of funds	22	10,205	12	3,050	13,255	19	5,852	4.53	1,46,941	9.02	2,161
4	Wells incomplete due to misutilization of loan	10	2,430	-	-	2,430	-	2,430	2.12	46,874	5.18	884
5	Wells in progress	5	1,620	3	900	2,520	4	1,800	5.98	22,995	10.96	1,769
Total of all 5 groups		95	38,432	66	16,811	55,243	53	19,853	3.45	5,91,543	9.34	2,136
Percent of total cost			69.57		30.43	100.00						

Table 5.39: Showing purpose-wise misutilization of loan in respect of all sample wells, according to category of wells.

'no' indicates number of sample wells. 'amt.' indicates rupees.

Group No.	Category of sample wells	P u r p o s e s											
		Loan misutilized		Purchase of animals		Investment in lands & houses		Investment in business		Consumption		Marriage & education	
		no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
1	Working wells	31	15,603	6	2,660	1	850	-	-	12	2,891	-	-
2	Wells that have gone dry or could not strike water	18	12,175	2	1,000	-	-	-	-	10	4,374	1	851
3	Wells incomplete due to shortage of funds	31	8,412	2	1,096	-	-	-	-	19	2,801	1	225
4	Wells incomplete due to misutilization of loan	53	67,700	15	7,674	5	5,940	4	4,928	40	19,639	7	7,347
5	Wells in progress	9	4,202	2	1,175	-	-	-	-	3	566	1	1,100
Total of all 5 groups		142	1,08,092	27	13,605	6	6,790	4	4,928	84	30,271	10	9,523
Percent of total			100.00		12.59		6.28		4.56		28.00		8.81

Continued

Table 5.39 - Contd.

Gr- cup No.	Category of sample wells	P u r p o s e s								Total amount of loan disbursed	Percentage of misutili- zation of loan to total loan disbursed
		Repayment of bank loan		Repayment of Society loan		Repayment of private loan		Bad advance to contractors			
		no	amt.	no	amt.	no	amt.	no	amt.		
1	Working wells	16	4,615	6	2,937	2	850	1	800	1,90,788	8.18
2	Wells that have gone dry or could not strike water	12	3,295	4	1,300	4	1,355	-	-	1,08,733	11.20
3	Wells incomplete due to shortage of funds	14	2,805	3	1,050	2	435	-	-	1,31,389	6.40
4	Wells incomplete due to misutili- zation of loan	23	6,703	15	6,850	17	8,619	-	-	1,14,574	59.09
5	Wells in progress	3	681	1	300	2	380	-	-	30,091	13.96
	Total of all 5 groups	68	18,099	29	12,437	27	11,639	1	800	5,75,575	18.78
	Percent of total		16.74		11.51		10.77		0.74		

in the case of wells that have remained incomplete due to shortage of funds. On the whole, the percentage of the misutilization of the bank loan to the total loan disbursed was 18.78 percent.

#### 5.9 (v) Demand, Recovery and Overdue Position and Sources of Recovery

The total amount of loan sanctioned for all the 277 sample wells was Rs. 6,70,300/-. The demand for recovery of the loan instalments upto 30-6-1966 was Rs.1,88,985/-. The recovery effected and the overdues against the demand for recovery upto 30-6-1966 were Rs.1,41,027/- and Rs. 47,958/- respectively. The demand, recovery and overdue position in respect of all the categories of sample wells as at 30-6-1966 is indicated in Table 5.40.

It is evident from the table that the total recovery effected was to the extent of 74.62 percent of the total demand for recovery leaving the balance of 25.38 percent in default. The percentage of the recovery to the demand was 81.64 percent in respect of the working wells, while it was 65.04 percent in respect of wells that have gone dry or could not strike water, 75.63 percent in respect of wells incomplete due to shortage of funds and 73.73 percent in respect of wells incomplete due to the misutilization of loan. The percentage of recovery in respect of wells incomplete due to shortage of funds was higher than that of wells that have gone dry or could not strike water. It was due to comparatively larger recovery from the sources of liquidation of assets and non-agricultural income in respect of the former wells.

The defaulting wells in the case of working wells stood at 39.08 percent of the demand wells, while they were as high as 64.71 percent, 59.65 percent and 57.78 percent for the categories of wells in groups Nos. 2, 3 and 4 respectively. On the whole, the defaulting wells in respect of all sample wells stood at 52.48 which was most discouraging but at the same time the percentages for the categories of wells in groups Nos. 2 and 3 were bound to be high for reasons of unproductive investment of the bank loan.

Out of 277 sample wells, the loan accounts of 10 wells were closed down by paying off the entire outstanding loans from the sale of lands in the case of 8 wells and from the agricultural and non-agricultural sources in the case of two wells.

The relation of overdues to demand according to the number of loan instalments which have fallen due for recovery in respect of all the sample wells during the period from 1961-62 to 1965-66 is presented in Table 5.41.

The table indicates that the percentage of overdues to demand increased with the decreasing number of loan instalments due for recovery except that in the case of loans, 3 instalments of which were due for recovery, it was the lowest. In other words, overdues were on the increase for the loans made in the successive years, except the lowest percentage mentioned above. The higher percentage of the overdues in respect of fresh loans was due to the bank's procedure of recovering the loan instalments within one year of the disbursement of loans,

Table 5.40: Showing demand, recovery and overdue position in respect of all the sample wells, according to category of wells. 'no' indicates number of sample wells. 'amt.' indicates rupees.

Gr- oup No.	Category of sample wells	Total loan disbursed		Demand for recovery		Recovery effected			Percen- tage of re- covery to demand	Overdues				Percen- tage of de- fault- ing wells to demand wells
		no	amt.	no	amt.	Prin- cipal amt.	Inte- rest amt.	Total amt.		Principal no	Principal amt.	Interest no	Interest amt.	
1	Working wells	92	1,16,750	86	61,722	34,543	15,847	50,390	81.64	34	8,671	24	2,661	39.08
2	Wells that have gone dry or could not strike water	51	1,23,850	51	47,583	20,906	10,040	30,946	65.04	33	12,733	30	3,904	64.71
3	Wells incomplete due to shortage of funds	68	1,51,200	57	40,267	21,104	9,348	30,452	75.63	34	7,747	24	2,068	59.65
4	Wells incomplete due to misutili- zation of loan	53	1,41,900	45	38,732	20,593	7,965	28,558	73.73	26	7,735	20	2,439	57.78
5	Wells in progress	13	36,600	3	681	530	151	681	100.00	-	-	-	-	-
Total of all 5 groups		277	6,70,300	242	1,88,985	97,676	43,351	1,41,027	74.62	127	36,886	98	11,072	52.48

Table 5.41: Showing demand and overdue position according to number of loan instalments due for recovery in respect of all the sample wells during 1961-62 to 1965-66

'no' indicates number of wells.

'amt.' indicates rupees.

Number of loan instalments due for recovery	No. of wells	Loans sanctioned Rs.	Demand			Overdues						Percentage of overdues to demand
			Principal amt.	Interest amt.	Total amt.	Principal		Interest		Total		
						no	amt.	no	amt.	no	amt.	
5 (1961-62 to 1965-66)	7	17,150	7,631	3,249	10,880	5	1,824	4	361	5	2,185	20.08
4 (1962-63 to 1965-66)	75	1,55,850	54,252	24,856	79,108	43	16,671	35	4,585	43	21,000	26.54
3 (1963-64 to 1965-66)	48	1,09,400	27,897	13,752	41,649	23	5,926	14	1,469	23	7,395	17.76
2 (1964-65 to 1965-66)	57	1,50,300	24,995	13,151	38,146	33	8,212	26	2,995	33	11,207	29.38
1 (1965-66)	55	1,43,600	12,370	6,832	19,202	24	4,507	19	1,664	24	6,171	32.14
<b>Total</b>	<b>242*</b>	<b>5,76,300</b>	<b>1,27,145</b>	<b>61,840</b>	<b>1,88,985</b>	<b>128</b>	<b>37,140</b>	<b>98</b>	<b>11,074</b>	<b>128</b>	<b>47,958</b>	<b>25.38</b>

\* Out of 277 sample wells, loan instalments of 35 wells were not due for recovery as at 30-6-1966.

irrespective of whether the wells were completed or not and the crops were raised under the irrigation of these wells or not. When there is no additional income from these wells during the period of their sinking, the instalments of these loans are bound to go in arrears.

The different sources of recovery of the loan instalments in respect of all categories of wells and the amounts raised from these sources are given in Table 5.42.

It is observed from the table that the agriculture was the major source of recovery. The recovery made from this source was 45.82 percent of the total recovery; next major sources were the liquidation of assets (20.19 percent) and the non-agricultural income (16.59 percent). The recovery made from the amounts of the second instalments of loans was 12.83 percent. In respect of 5 wells, amounts of the second instalments of loan were not paid due to the misutilization of first instalments of loan (in the case of 3 wells) and refusal of the borrowers (in the case of 2 wells) for disputes in their families. The amounts of the second instalments of loan for these wells which remained credited to their loan accounts, were subsequently adjusted towards recovery of instalments due from the first instalment of loan when the recovery did not forthcome from them in cash. This was just a paper adjustment. The recovery from this source was 2.32 percent.

Out of Rs. 64,617/- from the agricultural source, the major portion (Rs. 59,707/-) was from the sale of agricultural produce and Rs. 4,910/- from the sale of milk.

From among the non-agricultural sources, labour contributed little over fifty percent i.e. Rs.12,690/-, service Rs. 6,974/-, business Rs. 2,240/- and carting Rs. 1,490/-.

Out of Rs. 28,476/- from the source of liquidation of assets, the major portion (Rs. 21,202/-) was from the sale of lands in the case of 8 wells; Rs. 6,628/- from the sale of animals including 9 pairs of bullocks and Rs. 648/- from the sale of gold in the case of 2 wells.

#### 5.9 (vi) Requirement of Additional Funds for further work of wells and Additional Acreage that can be brought under irrigation

Inquiries made in connection with the further work that required to be done in the case of wells that have gone dry or remained incomplete due to shortage of funds and in respect of working wells that had inadequate supply of water, reveal that 119 wells require further deepening of wells, 51 wells require construction of wells, one well requires construction of irrigational channels and in the case of 2 wells, bullocks were required for lifting water. The additional funds required for the above purposes are indicated in Table 5.43.

It is seen that the requirements of additional funds with regard to the work of further digging and for construction of wells and irrigational channels and for



Table 5.42: Showing source-wise recovery of loan instalments in respect of all sample wells according to category of wells

'no' indicates number of wells. 'amt.' indicates rupees.

Group No.	Category of sample wells	Total loan recovery		Agricultural income		Non-agricultural income		Liquidation of assets		Out of Bank loan		II instalment adjusted		Society Loan		Private Loan	
		no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.	no	amt.
1	Working wells	80	50,390	53	34,565	16	7,003	5	3,749	16	4,615	-	-	-	-	1	458
2	Wells that have gone dry or could not strike water	49	30,946	26	12,051	14	6,677	9	6,718	12	3,295	-	-	3	1,805	1	400
3	Wells incomplete due to shortage of funds	50	30,452	19	10,574	17	7,691	12	8,057	12	2,805	2	825	1	500	-	-
4	Wells incomplete due to misutilization of loan	39	28,558	14	7,427	5	2,023	6	9,952	23	6,703	3	2,453	-	-	-	-
5	Wells in progress	3	681	-	-	-	-	-	-	3	681	-	-	-	-	-	-
Total of all 5 groups		221	1,41,027	112	64,617	52	23,394	32	28,476	66	18,099	5	3,278	4	2,305	2	858
Percent of total				45.82		16.59		20.19		12.83		2.32		1.64		0.61	

Table 5.43: Showing additional funds required for the work of further digging and construction of wells and for associated items in respect of all sample wells, according to category of wells

'no' indicates number of wells. 'amt' indicates rupees.

Category of wells	Additional funds required for further deepening		Additional funds required for construction		Funds required for construction of irrigational channels for purchase of bullocks		Additional acreage that can be brought or rebrought under irrigation (acres)
	no	amt.	no	amt.	no	amt.	
Working wells	33	37,700	12	11,700	-	-	40
Wells that have gone dry	30	41,800	8	6,700	-	-	95
Wells incomplete due to shortage of funds	56	76,400	31	26,900	3	1,500	197
<b>Total</b>	<b>119</b>	<b>1,55,900</b>	<b>51</b>	<b>45,300</b>	<b>3</b>	<b>1,500</b>	<b>332</b>

purchase of bullocks were to the tune of Rs. 2,02,700/-, 1, which requires to be provided by the District Cooperative Land Development Bank. Providing of the said additional finance will render the existing unproductive investment made in these wells productive and will relieve the farmers of the hardship being caused for the repayment of bank loan. This will mean that the purpose for which earlier finance was made, would be fulfilled. The area that can be brought under irrigation on providing the additional finance of the above order will be about 332 acres.

---

1/ Except Rs. 1,000/- for purchase of bullocks. Medium term loan for this purpose is provided by the District Central Cooperative Bank.

## CHAPTER VI

### BENEFITS OF IRRIGATION

In this chapter, it is proposed to discuss the cropping pattern prior to irrigation and after irrigation in respect of the sample wells which were functioning in 1966-67, gross farm receipts before irrigation and after irrigation, gross rise in farm receipts due to irrigation, additional current farm expenses arising out of irrigation, net additional farm receipts due to irrigation, returns on the investment on working wells and on all sample wells.

Out of 227 sample wells, the working wells in 1966-67 were 92, and out of these 92 wells, the working wells in 1965-66 were 74 and in 1964-65, 53. The production activity pertaining only to these working wells in the respective years would be studied in the chapter. Cropping pattern and production before and after irrigation pertains to the acreage brought under well-irrigation in the respective years.

#### 6.1 Cropping pattern prior to Irrigation and after Irrigation

The area brought under irrigation under 92 working wells in 1966-67 was 339.35 acres, in 1965-66 under 74 working wells, it was 267.06 acres and in 1964-65, under 53 working wells, 180 acres. The cropping pattern prior to irrigation, for the same areas which have been, later on, brought under irrigation is shown in Table 6.1. It would be seen from the table that cereals and pulses together accounted for about 95 to 96 percent of the total cropped area, oilseeds about 3.5 to 4.5 percent and little over half a percent under fodder crop. Among the cereals, Jowar and Bajara constituted about 57 percent and 27 percent of the total cropped area respectively.

The cropping pattern after irrigation is also presented in Table 6.1, from which, it would be seen that the percentage of the double cropped area in these three years ranged from 32 to 34 percent of the total cropped area. The average cropped area per well was little over four and a half acres. The acreage under the cereals, even after irrigation continued to occupy the major area under irrigated crops and accounted for about 78 percent to 81 percent: the pulses accounted for six and a half percent to nine percent and oilseeds, half a percent to 1.76 percent. The crops viz. condiments, vegetables, fibres, sugars and orchards, introduced after irrigation accounted for about 12 to 14 percent. Consequent on the introduction of these cash crops after irrigation, the acreage under cereals, pulses and oilseeds decreased to that extent. Since almost all the working wells except a few were having seasonal supply of irrigation, much acreage from under the food crops could not be diverted to cash crops. The original economy of this tract being always subsistence economy, the farmers preferred, in the initial years of irrigation, to raise food crops to meet their immediate consumption needs

Table 6.1: Showing cropping pattern before and after irrigation in respect of working wells

(A = Acres. G = Gunthas)

Before Irrigation

Groups of Crops	A*		B*		C*	
	Cropp- ed area	Percent of total	Cropp- ed area	Percent of total	Cropp- ed area	Percent of total
	A. G.		A. G.		A. G.	
i) Cereals:						
Jowar	103.29	55.33	148.24	56.58	195.13	58.73
Bajra	52.10	27.87	71.21	27.23	89.11	26.83
Hulga(or wheat)	3.26	1.94	3.26	1.39	3.26	1.10
Maize	-	-	-	-	-	-
<u>Total of (i)</u>	159.25	85.14	223.31	85.20	288.10	86.66
ii) Pulses:						
Mung	8.10	4.40	8.10	3.14	8.10	2.48
Gram	-	-	-	-	-	-
Tur	11.05	5.93	17.05	6.52	22.25	6.80
<u>Total of (ii)</u>	19.15	10.33	25.15	9.66	30.35	9.28
iii) Oilseeds:						
Groundnut	-	-	-	-	-	-
Safflower	7.00	3.73	12.00	4.57	12.00	3.61
<u>Total of (iii)</u>	7.00	3.73	12.00	4.57	12.00	3.61
iv) Condiments:						
Onions & Garlics	-	-	-	-	-	-
Chillies	-	-	-	-	-	-
<u>Total of (iv)</u>	-	-	-	-	-	-
v) Vegetables	-	-	-	-	-	-
vi) Fibres	1.20	0.80	1.20	0.57	1.20	0.45
vii) Sugars	-	-	-	-	-	-
viii) Fodders	-	-	-	-	-	-
ix) Orchards:						
Flowers	-	-	-	-	-	-
Fruits	-	-	-	-	-	-
<u>Total of (ix)</u>	-	-	-	-	-	-
<u>Total of (i) to (ix)</u>	187.20	100.00	262.26	100.00	332.25	100.00
Double cropped area	1.20		1.20		4.00	
Net area sown	186.00		261.06		328.25	
Fallow land brought under use after irrigation	-		6.00		11.10	
Total area	186.00		267.06		339.35	

\* 'A', 'B' and 'C' denote the cropping pattern before irrigation against the area under irrigation in 1964-65, 1965-66 and 1966-67 respectively.

.. Continued

Table 6.1 - Continued:

(A = Acres. G = Gunthas)  
After Irrigation

Groups of Crops	1964-65		1965-66		1966-67	
	Cropp- ed area A. G.	Percent of total	Cropp- ed area A. G.	Percent of total	Cropp- ed area A. G.	Percent of total
i) Cereals:						
Jowar	144.25	60.00	217.22	60.59	252.26	56.30
Bajra	34.35	14.48	50.31	14.14	79.36	17.80
(Wheat)	7.25	3.14	10.00	2.79	24.15	5.43
Maize	-	-	2.10	0.63	5.00	1.11
<u>Total of (i)</u>	187.05	77.62	280.23	78.15	361.37	80.64
ii) Pulses:						
Mung	12.20	5.19	27.00	7.52	17.00	3.79
Gram	3.00	1.24	3.20	0.97	11.38	2.67
Tur	-	-	1.30	0.49	0.20	0.11
<u>Total of (ii)</u>	15.20	6.43	32.10	8.98	29.18	6.57
iii) Oilseeds:						
Groundnut	4.10	1.76	2.20	0.70	1.10	0.28
Safflower	-	-	-	-	1.00	0.22
<u>Total of (iii)</u>	4.10	1.76	2.20	0.70	2.10	0.50
iv) Condiments:						
Onions & Garlics	2.12	0.95	10.02	2.80	9.34	2.23
Chillies	2.20	1.04	4.00	1.11	8.05	1.78
<u>Total of (iv)</u>	4.32	1.99	14.02	3.91	17.39	4.01
v) Vegetables	6.20	2.70	10.30	2.99	7.29	1.73
vi) Fibres	16.26	6.90	3.20	0.97	10.14	2.31
vii) Sugars	0.30	0.31	2.00	0.56	2.00	0.45
viii) Fodders	0.20	0.21	4.27	1.30	6.21	1.45
ix) Orchards:						
Flowers	2.20	1.04	2.10	0.63	3.20	0.78
Fruits	2.20	1.04	6.20	1.81	7.00	1.56
<u>Total of (ix)</u>	5.00	2.08	8.30	2.44	10.20	2.34
<u>Total of (i) to (ix)</u>	241.03	100.00	359.02	100.00	448.28	100.00
No. of wells	53		74		92	
Average cropped area per well	4.22		4.34		4.35	
Total net area sown	186.00		267.06		339.35	
Average net area sown per well	3.20		3.24		3.27	
Double cropped areas	55.03		91.36		108.33	
Percentage of double cropped area to total cropped area	29.62		34.40		32.02	

It will be further observed that the percentage of area under vegetables and fibres was on the decline year after year, while that of condiments viz, chillies, onions and garlic was on the increase; this was due to comparatively better prices for condiments. Sugarcane crop which requires perennial supply of irrigation was not much grown. Under the sub-group of fruits, orange and citrus orchards were raised but these orchards were not yet matured except one that had the first bearing season in 1966-67, but the raw fruits of the first bearing would be plucked off permitting the further growth of the plants. Under the sub-group of flowers, only Shevanti (Chrysanthemum indicum) was grown, that had demand in cities. Before irrigation, Maize was also raised as a fodder crop; after irrigation lucerne took its place. The acreage under fodder crop increased after irrigation. 11.10 acres of fallow land was brought under irrigation.

## 6.2 Gross Farm Receipts Before and After Irrigation

The total effect of irrigation on production activity is indicated by the comparative figures of the value of gross production in the same lands before and after irrigation, keeping the price factor constant. Rates applied in working out the value of gross production of irrigated crops in 1966-67 were the same as used in working out the value of gross production of dry crops in the same lands before irrigation. So also for the production of irrigated crops in 1965-66 and 1964-65 and the production of dry crops before irrigation in the same lands. Average annual prices of commodities for 1966-67, 1965-66 and 1964-65 were obtained from the regulated market at Ahmednagar. This market serves the two talukas of Ahmednagar and Parner. Prices in other regulated markets in the Ahmednagar District are generally dictated by the prices at the regulated market at Ahmednagar. The commodities which were not brought under the regulation of Agricultural Produce Market Act were valued at the common prices or actual proceeds of sale received in the year were treated as the value of that commodity. The Jowar and Bajara fodders (Kadba) were valued at the common rates i.e. Rs. 20/- and Rs. 5/- per hundred sheaves respectively. The condiments (Onions and Garlics) vegetables (potato, tomato, brinjal and sweet potato), sugars (jaggery), and flowers (Shevanti) which were not under the operation of the Market Act, were difficult of evaluation. The actual proceeds of sale of these commodities received in the year were taken as their value. Lucerne was harvested in periodical cuttings which were mostly fed to farm cattle. The production and its value were also, therefore, difficult of evaluation. Estimates were obtained from the cultivator-borrowers regarding the total yield during a year and its current market value. The estimates and market price, thus, obtained were used in working out the value of gross production of lucerne. The value of gross production of all other crops was calculated at the average annual market prices in the respective years.

Table 6.2 brings out by contrast the gross farm receipts of dry crops before irrigation and of irrigated crops after irrigation for the years 1964-65, 1965-66 and 1966-67. Columns under 'A' give the value of gross production before irrigation against the area under irrigation in 1964-65. Columns under 'B' give the value of gross production before irrigation against the area under

**Table 6.2:** Showing gross farm receipts before and after irrigation in respect of working wells

Group of crops	Before Irrigation								
	A *			B *			C *		
	1	2	3	1	2	3	1	2	3
<b>i) Cereals:</b>									
Jowar (grain)	112	65	7,280	159	65	10,335	203	65	13,195
(Kadbi No.)	17,000	20	3,400	23,400	20	4,680	28,100	20	5,620
Bajari (grain)	-	-	-	-	-	-	-	-	-
<u>Total</u>	-	-	10,680	-	-	15,015	-	-	18,815
Bajari (grain)	48	80	3,840	67	100	6,700	79	70	5,530
(Kadbi No.)	11,700	5	585	15,400	5	700	18,500	5	925
<u>Total</u>	-	-	4,425	-	-	7,470	-	-	6,455
Hulga (or wheat)	2-1/2	45	112	2-1/2	45	112	2-1/2	45	112
Maize	-	-	-	-	-	-	-	-	-
<u>Total Cereals</u>	-	-	15,217	-	-	22,597	-	-	25,382
<b>ii) Pulses:</b>									
Mung	8-1/2	100	850	8-1/2	95	807	8-1/2	116	986
Gram	-	-	-	-	-	-	-	-	-
Tur	8	90	720	13-1/2	80	1,080	19	95	1,805
<u>Total Pulses</u>	-	-	1,570	-	-	1,887	-	-	2,791
<b>iii) Oilseeds:</b>									
Groundnut	-	-	-	-	-	-	-	-	-
Safflower	4	80	320	7	120	840	7	123	861
<u>Total Oilseeds</u>	-	-	320	-	-	840	-	-	861
<b>iv) Condiments:</b>									
Onions and Garlics	-	-	-	-	-	-	-	-	-
Chillies	-	-	-	-	-	-	-	-	-
<u>Total Condiments</u>	-	-	-	-	-	-	-	-	-
<b>v) Vegetables</b>	-	-	-	-	-	-	-	-	-
<b>vi) Fibres</b>	2	180	360	2	170	340	2	250	500
<b>vii) Sugars (Glucose)</b>	-	-	-	-	-	-	-	-	-
<b>viii) Fodders</b>	-	-	-	-	-	-	-	-	-
<b>ix) Orchards:</b>									
Flowers	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-
<u>Total Orchards</u>	-	-	-	-	-	-	-	-	-
<u>Grand total of all crops</u>	-	-	17,467	-	-	25,667	-	-	29,534

1 = Quintals.      2 = Rate Rs.      3 = Total gross value Rs.

\* 'A' denotes the value of gross farm receipts of dry crops before irrigation against those of gross farm receipts of irrigated crops in 1964-65.

'B' denotes the value of gross farm receipts of dry crops before irrigation against those of gross farm receipts of irrigated crops in 1965-66.

'C' denotes the value of gross farm receipts of dry crops before irrigation against those of gross farm receipts of irrigated crops in 1966-67.

.. Continued.



Table 6.2 - Continued:

Group of crops	After Irrigation								
	1964-65			1965-66			1966-67		
	1	2	3	1	2	3	1	2	3
<b>i) Cereals:</b>									
Jower (grain)	314	65	20,410	557	65	36,205	624	65	40,560
(Kadbi No.)	34,000	20	6,800	53,400	20	10,680	57,200	20	11,440
Bajari (grain)	-	-	-	-	-	-	-	-	-
<u>Total</u>	-	-	27,210	-	-	46,885	-	-	52,000
Bajari (grain)	55	80	4,400	79	100	7,900	156	70	10,920
(Kadbi No.)	11,500	5	575	16,100	5	805	2,700	5	135
<u>Total</u>	-	-	4,975	-	-	8,705	-	-	11,055
Hulga (or wheat)	15	110	1,650	22	110	2,420	48	105	5,040
Maize	6	45	270	11	45	495	13	45	585
<u>Total Cereals</u>	-	-	34,105	-	-	58,505	-	-	68,680
<b>ii) Pulses:</b>									
Mung	19	100	1,900	37	95	3,515	22	116	2,552
Gram	5-1/2	120	600	5-1/2	140	770	19	156	2,964
Tur	-	-	-	3	80	240	1	95	95
<u>Total Pulses</u>	-	-	2,560	-	-	4,525	-	-	5,611
<b>iii) Oilseeds:</b>									
Groundnut	9-1/2	90	855	2-1/2	130	325	4	150	600
Safflower	-	-	-	-	-	-	2	123	246
<u>Total Oilseeds</u>	-	-	855	-	-	325	-	-	846
<b>iv) Condiments:</b>									
Onions and Garlics	-	-	2,400	-	-	6,175	-	-	4,910*
Chillies	8-1/2	200	1,650	5-1/4	350	1,837	10	425	4,250
<u>Total Condiments</u>	-	-	4,050	-	-	8,012	-	-	9,160
<b>v) Vegetables</b>									
	-	-	4,200	-	-	4,550	-	-	3,755*
<b>vi) Fibres</b>									
	33	180	5,940	5-1/2	170	935	45	250	11,250
<b>vii) Sugars</b>									
(Glucose)	13-1/3	60	800	47-1/2	65	3,087	61-1/2	110	6,765
<b>viii) Fodders</b>									
	-	-	250	-	-	3,600	-	-	5,250*
<b>ix) Orchards:</b>									
Flowers	-	-	700	-	-	800	-	-	3,500*
Fruits	-	-	-	-	-	-	-	-	-
<u>Total Orchards</u>	-	-	700	-	-	800	-	-	3,500
<u>Grand total of all crops</u>	-	-	53,460	-	-	84,339	-	-	1,14,817

1 = Quintals.

2 = Rate Rs.

3 = Total gross value Rs.

\* = Actual Receipts.

\*/ = Estimated.

irrigation in 1965-66 / The gross farm receipts of irrigated crops in 1964-65, 1965-66 and 1966-67 were Rs. 53,460/-, Rs. 84,339/- and Rs. 1,14,817/- as against the gross farm receipts of dry crops before irrigation, of Rs. 17,467/-, Rs. 25,664/- and Rs. 29,534/- respectively. The values of gross production of the irrigated crops were much greater than those of the dry crops before irrigation.

Gross farm receipts per cropped acre of the various groups of crops before and after irrigation for the years of 1964-65, 1965-66 and 1966-67 are brought in Table 6.3. Columns under 'A', 'B' and 'C' give the values of gross production per cropped acre of dry crops before irrigation against the values of gross production per cropped acre of irrigated crops in 1964-65, 1965-66 and 1966-67 respectively. From the table it would be observed that the value of gross production per cropped acre of cereals before irrigation was Rs. 88 to Rs. 95, while the value of gross production per cropped acre of cereals with irrigation was Rs. 182/- to Rs. 208/-. In respect of pulses, oilseeds and fibres also, there was a substantial increase in the value of gross production per cropped acre, with the application of irrigation. The value of gross production per cropped acre of pulses increased from Rs. 90/- to Rs. 190/- in 1966-67; oilseeds from Rs. 72/- to Rs. 376/- in the same year.

The value of gross production per cropped acre of the group of sugars (jaggery) was the highest of all those of the groups of irrigated crops in these three years.

The average gross value per cropped acre for the three years in respect of the cereals was Rs. 194/- after irrigation as against Rs. 94/- before irrigation; while in respect of pulses and oilseeds it was Rs. 164/- and Rs. 225/- after irrigation as against Rs. 83/- and Rs. 65/- before irrigation respectively. On the whole, the average gross value per cropped acre for the three years in respect of all crops was Rs. 241/- after irrigation as against Rs. 93/- before irrigation.

The gross value per cropped acre of the various groups of irrigated crops presents variations in different years due to fluctuation in their price and production. The increased value of gross production per cropped acre of the irrigated cereals in 1965-66 was due to rise in the price of Bajara. Under the group of the irrigated pulses - Gram and Mung fetched better prices in 1966-67 and, hence, the value of gross production per cropped acre of pulses increased in that year. There was seen a sharp rise in the value of gross production per cropped acre of oilseeds in 1966-67 owing to rise in their prices from Rs. 90/- per quintal in 1964-65 to Rs. 150/- per quintal in 1966-67. Although the condiments fetched better prices in 1966-67, the value of their gross production per cropped acre decreased in that year due to fall in production. The substantial rise in the value of gross production per cropped acre of cotton (fibre) in 1966-67 was on account of both better price and increased production. As a result of the rise in prices and production of jaggery (sugars) and Shevanti flowers (orchards), the value of their gross production per cropped acre rose by three times in 1966-67. The fluctuations in prices of individual crops and the acreages under the cause large variations in the gross income of the farmers.

/ and columns under 'C' give the value of gross production before irrigation against the area under irrigation in 1966-67.

Table 6.3: Showing gross farm receipts per cropped acre before irrigation and after irrigation

Group of crops	Before Irrigation											
	A*			B*			C*			Total for 3 years (A + B + C)		
	Cropp- ed area	Total gross value	Gross value per crop- ped acre	Cropp- ed area	Total gross value	Gross value per crop- ped acre	Cropp- ed area	Total gross value	Gross value per crop- ped acre	Cropp- ed area	Total gross value	Gross value per crop- ped acre
A. G.	Rs.	Rs.	A. G.	Rs.	Rs.	A. G.	Rs.	Rs.	A. G.	Rs.	Rs.	
Cereals	159.25	15217	95	223.31	22597	101	288.10	25382	88	671.26	63196	94
Pulses	19.15	1570	81	25.15	1887	74	30.35	2791	90	75.25	6248	83
Oilseeds	7.00	320	46	12.00	840	70	12.00	861	72	31.00	2021	65
Condiments	-	-	-	-	-	-	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-	-	-	-	-	-	-
Fibres	1.20	360	240	1.20	340	227	1.20	500	333	4.20	1200	267
Sugars	-	-	-	-	-	-	-	-	-	-	-	-
Fodders	-	-	-	-	-	-	-	-	-	-	-	-
Orchards	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total of All Crops</b>	<b>187.20</b>	<b>17467</b>	<b>93</b>	<b>262.26</b>	<b>25664</b>	<b>98</b>	<b>332.25</b>	<b>29534</b>	<b>89</b>	<b>782.31</b>	<b>72665</b>	<b>93</b>

\* 'A', 'B' and 'C' denote the value of gross farm receipts of dry crops before irrigation against those of gross farm receipts of irrigated crops in 1964-65, 1965-66 and 1966-67 respectively.

A = Acres. G = Gunthas.

.. Continued

Table 6.3 - Continued:

Group of Crops	After Irrigation											
	1964-65			1965-66			1966-67			Total for 3 years (1964-65 to 1966-67)		
	Cropp- ed area	Total gross value	Gross value per crop- ped acre Rs.	Cropp- ed area	Total gross value	Gross value per crop- ped acre Rs.	Cropp- ed area	Total gross value	Gross value per crop- ped acre Rs.	Cropp- ed area	Total gross value	Gross value per crop- ped acre Rs.
A. G.	Rs.	Rs.	A. G.	Rs.	Rs.	A. G.	Rs.	Rs.	A. G.	Rs.	Rs.	
Cereals	187.05	34105	182	280.23	58505	208	31.37	68680	190	829.25	161290	194
Pulses	15.20	2560	165	32.10	4525	140	29.18	5611	190	77.08	12696	164
Oilseeds	4.10	855	201	2.20	325	130	2.10	846	376	9.00	2026	225
Condiments	4.32	4050	844	14.02	8012	572	17.39	9160	509	36.33	21222	576
Vegetables	6.20	4200	646	10.30	4550	423	7.29	3755	485	24.39	12505	501
Fibres	16.26	5940	318	3.20	935	267	10.14	11250	1087	30.20	18125	594
Sugars	0.30	800	1067	2.00	3087	1543	2.00	6765	3382	4.30	10652	2243
Fodders	0.20	250	500	4.27	3600	771	6.21	5250	808	11.28	9100	778
Orchards	5.00	700	140	8.30	800	91	10.20	3500	333	24.10	5000	206
Total of All Crops	241.03	53460	222	359.02	84339	235	448.28	114817	256	1048.33	252616	241

A = Acres. G = Gunthas.

The task of obtaining the gross production from the same lands (which were later on brought under well-irrigation) in the absence of irrigation was, of course, much more difficult. Firstly, the cultivators being illiterate did not keep any records about the production, secondly, the crops from these lands were not separately harvested, and thirdly, the areas being liable to famines, normal production from these lands was difficult to be ascertained. However, an attempt was made to collect the information about the production as correct as possible by enquiring with the farmers about the crops grown and their production they used to have from these lands both in times of famines and good rains and from this, average production was ascertained.

### 6.3 Gross Additional Farm Receipts due to Irrigation

The total effect attributable to irrigation can be calculated by estimating the value of the gross produce under irrigation and deducting from it the values of the gross produce that would have been yielded by the same lands in the absence of irrigation. Prices of commodities were kept constant to avoid the effect of prices on the value of gross produce. From Table 6.3, it would be seen that there has been a substantial rise in the value of gross production with irrigation in respect of all the groups of crops.

Aggregate gross additional farm receipts with irrigation are indicated by the comparative figures of the values of gross production of irrigated crops and dry crops in Table 6.4.

The value of total production is a good index of the increased size of business activity made possible by irrigation. <sup>1/</sup> This, in effect, is the measure of the total direct effects of the investment of the bank loan in the sinking of new wells. Broadly, this survey shows that the sinking of **irrigational** wells made possible an average gross additional farm receipts per net acre sown by Rs. 194/- in 1964-65, Rs. 220/- in 1965-66 and Rs. 251/- in 1966-67. The average gross additional farm receipts after irrigation for the three years were Rs. 227/- per net acre sown. The aggregate gross additional farm receipts of irrigated crops have been to the extent of 206 percent in 1964-65, 229 percent in 1965-66 and 289 percent in 1966-67. The aggregate gross additional farm receipts of irrigated crops for the three years have been of the order of 248 percent. The better prices and production in 1966-67 were responsible for the increased gross additional farm receipts in that year.

### 6.4 Additional Current Farm Expenses

Table 6.5 indicates the additional current farm expenses (excluding the cost of family labour), arising out of irrigation. The greater intensity of irrigated farming is indicated by the greater expenditure on manures, seeds and plants as also on hired labour. The expenditure on feed for live-stock is greater in irrigated farming than in the dry farming as the livestock

---

<sup>1/</sup> Economic Effects of Irrigation by Prof.D.R.Gadgil, 1948, p. 54.

Table 6.4: Showing the values of aggregate gross production before and after irrigation, aggregate gross additional farm receipts, percent aggregate gross additional farm receipts and average gross additional farm receipts per net acre sown during 1964-65, 1965-66 and 1966-67

(Amounts in Rupees)

Year	Aggregate gross farm receipts			Aggregate gross additional farm receipts Rs.	Percent aggregate gross additional farm receipts	Average gross farm receipts per net acre sown		Average gross additional farm receipts per net acre sown Rs.
	Net area sown (acres)	Before irrigation Rs.	After irrigation Rs.			Before irrigation Rs.	After irrigation Rs.	
1964-65	186	17,467	53,460	35,993	206.06	94	287	194
1965-66	267	25,664	84,339	58,675	228.63	96	316	220
1966-67	340	29,534	1,14,817	85,283	288.76	87	338	251
Total of 3 years	793	72,665	2,52,616	1,79,951	-	-	-	-
Average for 3 years	264	24,222	84,205	59,983	247.64	92	319	227

Table 6.5: Showing additional current farm expenses (excluding family labour) arising out of irrigation in respect of working wells (Figures in Rupees)

Items of Expenses	1964-	1965-	1966-	Total for 3 years	Average for 3 years	Percentage distribution of additional farm expenses			
	65	66	67			1964-	1965-	1966-	Average
	Rs.	Rs.	Rs.	Rs.	Rs.	65	66	67	for 3 years
i) Seeds and Plants Purchased	300	830	1,020	2,150	717	1.33	2.28	2.31	2.09
ii) Manures: Farm Produce Purchased	5,176 2,381	7,568 3,231	8,640 4,351	21,384 9,963	7,128 3,321				
Total Manures	7,557	10,799	12,991	31,347	10,449	33.60	29.69	29.37	30.41
iii) Oils and Lubricants: Purchased	2,200	3,000	3,550	8,750	2,917	9.78	8.25	8.02	8.49
iv) Paid Labour: Casual Farm Servants	3,320 2,400	5,220 3,250	7,560 4,550	16,100 10,200	5,367 3,400				
Total Paid Labour	5,720	8,470	12,110	26,300	8,766	25.44	23.29	27.38	25.51
v) Fodders: Farm Produce	3,240	8,280	9,000	20,520	6,840	14.14	22.77	20.34	19.90
vi) Depreciation:									
Wells at 1%	1,431	1,968	2,444	5,843	1,948				
Purchased bullocks at 20%	440	1,100	1,200	2,740	913				
Oil Engines at 10%	1,600	1,920	1,920	5,440	1,813				
Total Depreciation	3,471	4,988	5,564	14,023	4,674	15.44	13.72	12.58	13.60
Total Farm Expenses (Items (i) to (vi))	22,488	36,367	44,235	1,03,090	34,363	100.00	100.00	100.00	100.00
Total net area sown (acres)	186	267	340	793	264				
Additional current farm expenses per net acre sown	121	136	130	-	130				

on irrigated farms is worked through the considerable part of the year and is also fed much better than on the dry farms. From the above table, it would be seen that the manures and paid labour constituted the major part of the total additional current farm expenses. The average expenses on manures and paid labour for the three years were 30.41 percent and 25.51 percent of the total additional current farm expenses respectively; the average expenses on fodders and oils and lubricants were 19.90 percent and 8.49 percent respectively. The seeds and plants constituted 2.09 percent.

Depreciation at 20% was calculated on the additional bullocks required to be purchased for irrigated farming; depreciation on the oil engines and the working wells was calculated at 10 percent and 1 percent respectively. This formed 13.60 percent of the average total additional farm expenses for the three years.

The additional expenses incurred on the purchase of seeds and plants were in respect of sugarcane, cotton, orchards, vegetables and fodders. Of the total manures applied to irrigated crops, the value of the manures produced on the farms was about two-third, and one-third of the value of manures purchased. The farm yard manures purchased were priced at the common rate of Rs. 8/- per cart. The fertilizers purchased were valued at their controlled rates. In 1966-67, the cost of fertilizers purchased was Rs. 2,615/- as against the cost of the total purchased manures of Rs. 4,351/- that is to say, more than 50 percent of the cost of the purchased manures was spent on the purchase of fertilizers. But when compared with the total cost of manures (including manures produced on farms), the cost of fertilizer was about one-fifth. Fertilizers were mostly applied to the cash crops only. Out of 92 working wells in 1966-67, the owners of 6 wells installed oil engines for lifting water from the wells, and in respect of 2 wells, oil engines were hired to lift the water, and in respect of the remaining 84 wells, water was lifted with the help of Mots (water bags); the actual expenses incurred on the purchase of oils and lubricants and repairs were taken as the cost on this item, and in respect of hired oil engines, the hire charges paid were taken. The expenditure on the paid casual labour was much more than that on the farm servants. The casual labour was mainly required for plantation, intercultivation and harvesting and in respect of sugarcane, for manufacture of jaggery. For all occasional small-scale jobs arising throughout the year, casual labour is employed on daily wages. The labour was available from the villages themselves. The common rates of casual labour were Rs. 2 per day for men and Re. 1 per day for women. The additional farm servants employed in 1966-67 were 7 men; in 1965-66, 6 men; and in 1964-65, 4 men. They were paid Rs. 300 to Rs. 350 in cash plus Rs. 300 to Rs. 350 in kind i.e. in the form of jowar and clothes. A farm servant was annually paid on an average Rs. 650/-. As a result of the irrigated farming made possible by the sinking of wells, 15 male and 15 female members of the families got regular work throughout the year on their farms; 20 male and 20 female family labourers got regular work for 4 to 6 months on their farms and 52 male and 52 female family labourers got work for seasonal operations from 1 month to 3 months. Additional bullocks were purchased for irrigated farming in the case



of some farms. The number of such bullocks was 9 in 1964-65, 22 in 1965-66 and 25 in 1966-67. The cost of these 25 bullocks was Rs. 6,000/-. Annual depreciation at 20 percent was charged. A bullock is, normally, fed 5 sheaves of jowar fodder a day. On the basis of this, the cost of fodder fed to these bullocks during a year at the same rate of Rs. 20/- per hundred sheaves was calculated. The total additional current farm expenses during 1964-65, 1965-66 and 1966-67 stood at Rs. 22,488/-, Rs. 36,367/- and Rs. 44,235/- respectively. The average additional current farm expenses per net acre sown for 1964-65, 1965-66 and 1966-67 were Rs. 121/-, Rs. 136/- and Rs. 130/- respectively, and those for the three years were Rs. 130/-.

### 6.5 Net Additional Farm Receipts

The net additional farm receipts due to irrigation are indicated by deducting the total additional current farm expenses arisen out of irrigation, from the total gross rise obtained. Table 6.6 indicates the net additional farm receipts that were obtained in 1964-65, 1965-66 and 1966-67.

The total net additional farm receipts in 1964-65, 1965-66 and 1966-67 were Rs. 13,505/-, Rs. 22,308/- and Rs. 41,048/-, working out to net additional farm receipts per net acre sown, at Rs. 73/-, Rs. 84/- and Rs. 121/- respectively. The better prices and better production in 1966-67 resulted in the increased additional farm receipts in that year. The average net additional farm receipts per net acre sown for these three years were Rs. 97/-.

### 6.6 Returns on Investment

The ultimate single criterion of the determination of utilization of long-term finance for sinking of irrigation wells in its financial aspect should be the rate of return on investment made by the farmers on sinking of new wells. Judged by the results for the years 1964-65, 1965-66 and 1966-67, the net additional farm receipts due to irrigation from the working sample wells work out, broadly, to Rs. 13,505/-, Rs. 22,308/- and Rs. 41,048/- respectively, and the average net additional farm receipts due to irrigation for these three years were Rs. 25,620/- as indicated in Table 6.7.

From the Table 6.7, it would be seen that the rate of return on investment made in respect of the working sample wells for the years 1964-65, 1965-66 and 1966-67 was 8.37 percent, 10.02 percent and 15.22 percent respectively, which appears to be substantial, particularly in 1966-67. The higher rate of return on investment in 1966-67 was due to better prices and better production in that year. The average rate of return on the investment on the working sample wells for these three years comes to 11.76 percent.

The investment of loan in the working wells was 32.97 percent. We may take it as 1/3 of the total loan issued for all the sample wells. The rate of return on the total investment of loan in respect of all the sample wells would be 1/3 of the rate of return obtained on the investment of loan in the working wells for the respective years. On the basis of this, the rate of return on the

Table 6.6: Showing net additional farm receipts in 1964-65, 1965-66 and 1966-67 in respect of working wells

(Figures in Rupees)

Particulars	1964-65	1965-66	1966-67	Total of 3 years	Average for 3 years
Gross additional farm receipts	35,993	58,675	85,283	1,79,951	59,983
Additional current farm expenses	22,488	36,367	44,235	1,03,090	34,363
Net additional farm receipts	13,505	22,308	41,048	76,861	25,620
Average gross additional farm receipts per net acre sown	194	220	251	-	227
Average additional farm expenses per net acre sown	121	136	130	-	130
Average net additional farm receipts per net acre sown	73	84	121	-	97

Table 6.7: Showing net return on investment on working sample wells for 1964-65, 1965-66 and 1966-67

Particulars	1964-65 Rs.	1965-66 Rs.	1966-67 Rs.	Total of 3 years Rs.
Investment on working wells	1,43,072	1,96,842	2,44,442	5,84,356
Investment on purchased bullocks and oil engines	18,200	24,700	25,200	68,100
Total Investment	1,61,272	2,21,542	2,69,642	6,52,456
Net additional farm receipts	13,505	22,308	41,048	76,861
Percentage Return on total investment on working wells	8.37	10.02	15.22	11.76

investment of total loan in respect of all the sample wells comes to 2.79 percent in 1964-65, 3.34 percent in 1965-66 and 5.07 percent in 1966-67. The average rate of return for these three years comes to 3.92 percent which is unsatisfactory.

The amount of Rs. 4,37,650/- (i.e. about 2/3 of the total loan) issued for the wells which could not function for some reason or the other as explained in the preceding Chapter V, calls for the reviewing of the loaning policy laid down in respect of long-term finance for sinking of irrigational wells, from the land development banks. Some suggestions are made in the following Chapter VII.

## CHAPTER VII

### AN ECONOMIC APPRAISAL OF THE PROGRAMME

This chapter is intended to present an economic appraisal of the existing policy and procedure in the light of the studies made in the preceding chapters and to suggest improvements in them so as to make them more effective from the stand-point of maximising utilization of long-term finance for irrigational wells and maximising benefits that will accrue from such utilization of loans. The topics discussed in this chapter include the appraisal of the existing policy and procedure and of sample wells, adequacy of loans, need for close supervision, subsoil water surveys, trial borings and technical advice and partial compensation of loans for failure of wells.

#### 7.1 Appraisal of policy and procedure

A lengthy procedure in sanctioning a loan application of the farmer has caused a considerable delay and the illiterate farmer had to face many procedural difficulties by way of collecting several certificates and documents from the different offices. Due to his ignorance and illiteracy, the farmer was quite vulnerable to corrupt practices followed by officials. Talathis and Gramsevaks of the villages were generally uncooperative and indifferent in dealing with the farmers. It appears to have been the general rule that unless gratification money is paid to Talathis as desired, the necessary certificates and documents are not issued to the farmers. The same is the case with the Gramsevaks who do not recommend the desired amounts of loans and forward the loan applications of the farmers promptly unless they are paid some gratification money. The Secretaries of the Primary Cooperative Societies also are unwilling to issue 'no-overdue certificate' quickly unless they are given some tips. When some certificates which are not available with the village Talathi are required to be obtained from the taluka revenue office, where unless some tips are paid, the documents are not issued to the farmers immediately. The same is the case in the block development office, where loan applications are kept pending till the clerk concerned is tipped. The farmer has to incur expenses including gratification, transport and refreshment charges of the Talathi, Gramsevak, official or intermediary from a minimum of Rs. 45/- to a maximum of Rs. 405/- and on an average around a hundred rupees. This is quite a heavy burden on the farmer. Due to the prevalence of corrupt practices, considerable delays are caused.

Although the Rule 93(15) of the Rules of the Maharashtra Cooperative Societies Act 1960, lays down the maximum period required of four months for disposal of loan applications, the period to sanction 41 percent of the loan applications exceeded four months and the disposal of 59 percent of the loan applications within the four months was rendered quick due to the payment of gratification to the officials in most of the cases. Even prior to making an application, a period of 3 to 4 months is lost in persuading the village Talathi to issue the necessary certificates and documents.

To reduce the delay in sanctioning loans and the corruption inherent in such a lengthy procedure, the land development banks may be authorized to call the necessary certificates and documents direct from the revenue department, block development office and the primary cooperative society. Almost all the sample farmers opined that the present procedure of collecting certificates and documents from different offices by the farmers should be changed and the land development bank should collect them. The directors of the bank who are the representatives of the farmers, can see that the loan applications received from the farmers are disposed of promptly and the bank officials do not indulge in corrupt practices.

## 7.2 Adequacy of Loans

It has been observed that 59 wells (21.3 percent of the total sample wells) have remained incomplete due to the inadequate loans issued by the Bank. Thirty wells (11 percent) that have gone dry, can be brought under irrigation by providing additional funds for further deepening and construction. Of the 92 working wells, 33 (12.59 percent of the total sample wells) have meagre supply of water and hence, they need additional funds for further deepening and construction. The total requirements of additional loans for these wells are to the tune of Rs. 2,02,700 i.e. Rs. 1,04,800 for 59 incomplete wells, Rs. 48,500 for 30 dry wells and Rs. 49,400 for 33 working wells. On providing the additional finance of the above order, 332 acres of land can be brought under irrigation. The average loan per well issued, average cost per well, average additional loan requirements per well are indicated in Table 7.1.

It will be seen that the average cost per well in respect of the working wells, dry wells and incomplete wells due to shortage of funds was Rs. 2,657/-, Rs. 2,685/- and Rs. 2,180/-, while the net loan disbursed per well was Rs. 2,074/-, Rs. 2,211/- and Rs. 1,959/- respectively. On the whole, the average cost per well was Rs. 2,508/- as against the average net loan of Rs. 2,062/- disbursed per well.

The average total loan requirements per well in respect of the working wells, dry wells and incomplete wells are of the order of Rs. 3,645/-, Rs. 4,741/- and Rs. 4,515/- respectively and on the whole Rs. 4,118/-. The reason for the comparatively increased average total loan requirements per well in respect of the latter two categories of wells is that they require more deepening when compared to the former category of wells.

The loans issued for wells incomplete due to inadequate loans and for dry wells constituted 20.11 percent and 11.59 percent respectively, making a total of 31.70 percent of the total loan issued for all sample wells, which are at present unproductive. Had the dry wells, incomplete wells due to inadequate loans and the working wells having a meagre supply of irrigation been provided with an additional finance of Rs. 2,02,700/-, additional 332 acres of land would have been brought under irrigation and the returns on the investment of loans would have been larger.

Table 7 1: Showing average loan issued and average loan requirements per well according to category of wells

Category of wells	No. of wells*	Total loan issued	Average loan issued per well	Total deductions from total loan issued	Total net loan disbursed	Average net loan disbursed per well	Total cost of wells	Average cost per well	Total additional loans required for further work
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	2	3	4	5	6	7	8	9	10
Working wells	92	2,15,250	2,340	24,462	1,90,788	2,074	2,44,442	2,657	49,400
Dry wells	33	82,200	2,491	9,249	72,951	2,211	88,617	2,685	48,500
Wells incomplete due to shortage of funds	59	1,31,300	2,250	15,702	1,15,598	1,959	1,28,501	2,180	1,04,800
Total	184	4,28,750	2,330	49,413	3,79,337	2,062	4,61,560	2,508	2,02,700

Category of wells	Average additional loan required per well	Total cost plus total additional loan	Average cost plus average additional loan per well	Amount required for deductions from loan at 12.37 percent of loan sanctioned	Total loan requirement per well (13+14)
	Rs.	Rs.	Rs.	Rs.	Rs.
	11	12	13	14	15
Working wells	537	2,93,842	3,194	451	3,645
Dry wells	1,470	1,37,117	4,155	586	4,741
Wells incomplete due to shortage of funds	1,775	2,33,301	3,955	560	4,515
Total	1,100	6,64,260	3,608	510	4,118

\*Working wells: Out of 92 working wells, 33 have meagre supply of irrigation and require further deepening.

Dry wells : Out of 33 dry wells, 30 require further deepening. Three wells encountered hard rock; hence no further deepening is possible in their case.

Incomplete wells due to shortage of funds | Out of 68 wells incomplete due to shortage of funds, work of 8 wells was also neglected by their owner; hence, they are not considered for additional funds and one well which fell in is also not considered. The remaining 59 wells require additional funds.

The loans for sinking of irrigational wells are sanctioned on the basis of the formula for valuation of lands. According to the formula, lands are valued at 300 times the assessment of the land. The cost of the well is added to the valuation so arrived at and a loan is sanctioned to the extent of 50 percent of the total valuation. Due to inadequate values of the security offered to the Bank, adequate loans could not be sanctioned. For example, a farmer having 6 acres of land with an assessment at Rs. 4 would be eligible for a loan of Rs. 2,350/- as under:

	Rs.
Assessment of the land ...	4
Value of the land at 300 times the assessment ...	1,200
Probable cost of the proposed well ...	3,500
Total Valuation ...	4,700
Loan at 50 percent of total valuation ...	2,350

Out of Rs. 2,350/-, the farmer would receive a net loan of about Rs. 2,000/- (leaving the remaining balance for deductions), which is obviously inadequate to meet the cost of the well. It was, generally, observed that where security to be offered was inadequate, the cost of the well also was underestimated. This also led to the inadequate finance in respect of such cases and as a result of which, such wells remained incomplete or the loan was misapplied.

Provision of finance for sinking of wells makes it necessary for the banks to readjust their security demands. It is necessary for the banks to base their advance not on the present value of the security but its potential value which, in effect, means valuing the security land sought to be improved, in its improved state. While in land development- banks security will certainly be the basic consideration, repaying capacity should play a more important part in the sanction of loans. The present survey revealed that the net additional farm receipts due to irrigation were obtained on an average at about Rs. 100/- per acre, and the average area brought under irrigation per working well was 3.75 acres, say 4 acres. And if adequate finance is provided for wells, the average area under irrigation per working well would be about 5 acres. The net additional farm receipts from 5 irrigated acres would be about Rs. 500/- which would be sufficient to meet the yearly loan instalments of the bank.

It may, therefore, be suggested that the banks should base their advances on the actual requirements of loan for the wells and the loans should be made for such wells under which a minimum area of 4 to 5 acres can be brought under irrigation, and if necessary, they should be made in three or four instalments so as to ensure their proper utilization. The land brought under irrigation will be a sufficient security for the loan obtained from the bank.

It is the practice of the Bank to make various deductions from the loans sanctioned. The deductions made from a loan of Rs. 4,000/- were as under:

<u>Purpose</u>	<u>Amount - Rs.</u>
(i) Purchase of bank shares at 10 percent of loan	400
(ii) Building fund	10
(iii) Land valuation fee	11
(iv) Search fee	6
(v) Printing and stationery	3
(vi) Nominal membership	3
(vii) Writing charges	4
(viii) Purchase of Rural Debenture	100
Total deductions	537

Out of Rs. 4,000/- sanctioned, a net amount of Rs. 3,463/- is disbursed to the borrower. The deductions at Rs. 537/- made from the loan itself are a heavy burden on the cultivator at a time and less amount of loan is available to the cultivator for sinking of well. It may, therefore, be suggested that the recovery of such charges which are required to be incurred for obtaining loans should be made over a period of loan along with the yearly loan instalments. If the period of loan is 10 years, the yearly recovery of the charges would be Rs. 53.70. By doing so, the entire amount of loan of Rs. 4,000/- can be made available to the farmer for sinking of well.

As per the rules, the principal is to be recovered in 10 annual instalments; the first instalment of loan is to be recovered 12 months after the completion of the well or 24 months after the drawal of the first instalment of the loan whichever is earlier. But in practice, this was not adhered to. The first instalment of loan was recovered on the 31st March if the first instalment of loan was advanced before January of the same year, irrespective of whether the well was completed or not and the crops under the well-irrigation were taken or not; and the amount of the first instalment was recovered from out of the amount of the second instalment of the loan subsequently disbursed on completion of the work of the first instalment of the loan. This practice has adversely affected the purpose for which the loans were made. Without the completion of the well and raising irrigated crops under the well, the recovery should not be made. The loan is supposed to be repaid from out of the additional income from the increased production from irrigation made available to the crops. The practice of recovering the first instalment within a few months of the disbursement of the second instalment of the loan when neither the well is completed nor did the benefit of irrigation accrue to the well-owner, is not a healthy one and defeats the very purpose of such loans. The Reserve Bank of India should examine the existing practice which is detrimental to the interests of the farmer and allow the policy of recovering the first instalment 12 months after the completion of the well or 24 months after the disbursement of the first instalment of the loan.



### 7.3 Need for Close Supervision over Utilization of Loans

It is, generally, the rule in the land development banks to advance loans for sinking of wells in two instalments. The first instalment is generally one-half of the loan. When an application is made for the disbursement of the second instalment, an officer of the bank makes on-the-spot verification of the utilization and only after he has certified that the amount has been utilized fully for the purpose for which the loan was sanctioned, the second instalment is disbursed.

After the second instalment is disbursed, the supervision was found to be lacking. After the disbursement of the loan, the bank officials viz. supervisors think that their job was over and only they have to visit the borrowers for the recovery of the loan instalments. Due to the lack of strict and close supervision, the amounts of second instalments were misapplied.

In fact, it should be the duty of the bank supervisors to visit the spots even when the work is in progress and enquire with the borrowers whether they had any difficulties. If the loan disbursed has been fully utilized but the well remained incomplete due to inadequate loan, the bank supervisor should prepare a case for the required additional loan and see that the same is sanctioned and disbursed in due course to complete the well. If any borrower was found to have misapplied the second instalment, the bank supervisor should immediately report the matter to the Manager of the Bank, who in turn, should make on-the-spot verification and if he is satisfied about the misapplication of the loan, the recovery of the entire amount of loan should be ordered immediately as provided under section 138 of the Maharashtra Cooperative Societies Act 1960. In this respect, political or any other influence should not be allowed to play its part.

For the purpose of having close supervision over the utilization of loan, the bank supervisor will be required to make frequent visits (i.e. minimum 5 visits) to the spot till the well is completed. Two visits from the disbursement of the first instalment till the completion of the work of the first instalment, another two visits from the disbursement of the second instalment till the completion of the final work and one more visit should be paid with a view to see whether the well has been put to the use of irrigation. In case, additional loan is required, another one or two visits may be required. For this purpose, adequate number of trained supervisors will have to be stationed at the taluka branches of the Bank.

While the certificates of utilization are issued by the supervisors of the Bank, higher inspecting authorities viz Loan Officers and Assistant Managers should also inspect the spots anywhere between 25 percent to 50 percent of the cases, and the Manager should cross-check 5 to 10 percent of the cases to ensure proper inspection. If this is done, chances for misapplication of the loan would be reduced to the minimum and the possibility of supervisor's inspection turning into an occasion for blackmailing would be ruled out.

For future programme, the Bank should take care that the advance for sinking of wells should fully cover so much

of the total outlay required to construct the work as the borrower is unable to provide from his own resources. Insufficient loans merely lead to waste and tempt the borrower to misapply the money received.

Where a loan advanced is based on the potential value of the land and actual requirements of loan, it also becomes necessary that in order to safeguard their basic security and empower repaying capacity, the Land Development Banks should ensure the finance provided by them is utilized for the purpose for which it was sanctioned.

#### 7.4 Rate of Interest and Period of Repayment

Analysis attempted with regard to the utilization of long-term finance for the new wells and the benefits accrued due to irrigation indicates that about 1/3 of the total sample wells (92 wells out of 277 sample wells) were in use in 1966-67. The bank loan issued for these working wells, which also was about 1/3 of the total finance issued for all the 277 sample wells (i.e. Rs. 2,15,250/- out of Rs. 6,52,900) has been productive. 18.4 percent of the total sample wells have gone dry or could not strike water, 24.6 percent have remained incomplete due to inadequate funds, 19.1 percent in whose case the bank loan was misapplied and 4.7 percent whose work was in progress; the bank loan issued for the said categories of sample wells was 18.7 percent, 22.9 percent, 20.1 percent and 5.3 percent of the total loan issued for all the sample wells respectively.

The average net returns on the investment on the working wells were 11.76 percent which also is just adequate to repay the bank loan at 4-1/2 percent rate of interest in the prescribed period of 10 years (actually in 11 years <sup>1/</sup>) presuming that all the net additional farm receipts from irrigation are utilized for repayment of the bank loan.

Till 30-6-1967, the Government used to grant interest subsidy to the banks to the extent of the difference between the economic lending rate (as may be fixed by the Government every year) and the lending rate to the ultimate borrower i.e. 4-1/2 percent per annum in respect of development loans including those for sinking of new wells. Due to the interest subsidy granted by the Government, the borrower was required to pay the interest at 4-1/2 percent on his loan.

From 1-7-1967, Government discontinued to grant interest subsidy to the banks. The lending rate which the borrowers are now required to pay on their loans is 9-1/4 percent. It is seen that even in respect of working wells, the repayment of the bank loan at 4-1/2 percent rate of interest and with 11.76 percent rate of returns on the investment is possible in 11 years and if the rate of interest is enhanced to 9-1/4 percent, the period required for the repayment of the bank loan with this rate of returns would be 17 years. This is too long but under these circumstances it is inevitable if the rate of interest is to be enhanced to 9-1/4 percent.

When the owners of the working wells need a period of 17 years for the repayment of the bank loan from the increased value of production, the owners of the wells

<sup>1/</sup> Donald D.M.A., Compound interest and Annuities - Certain, 1953. Compound Interest Table at 4-1/2 percent, p.297.

that have gone dry or remained incomplete due to inadequate funds will face a very serious problem of the repayment of the bank loan. It is, therefore, suggested that the Bank should remit the interest on loans in respect of these wells till they are brought/rebrought under the use of irrigation. The amount of such remission of interest can be provided, if necessary, by raising the rate of interest from 9-1/4 percent to 10 percent in respect of working wells. The period required for repayment of the bank loan with the enhanced rate of interest at 10 percent would be about 20 years. Hence, the period of repayment should be 20 years rather than 10 years as at present.

#### 7.5 Subsoil Water Surveys, Trial Boring and Technical Advice

In many cases, notwithstanding the aptitude and experience of the people, uncertainty exists as to the suitability of sites and as to the possibility of tapping a permanent source of supply which would not be dependent on mere local percolation. To obviate the failure to find water, detailed and systematic surveys should be made of the subsoil water.

It is necessary that the sinking of wells should be preceded by appropriate ground water surveys and investigations so that the available ground water resources are exploited systematically on sound technical lines. Conducting these surveys and investigations should be the responsibility of the State Technical Department.

For planned development of the available ground water sources and avoiding infructuous expenditure, it is necessary that the wells should be sited and spaced properly. Active technical guidance and supervision would require to be arranged by the State Technical Department, in this regard.

It would be desirable that trial borings should precede the sinking of wells. The cost of boring is Rs.6 per foot; for 40 feet it may cost about Rs. 240/- which is not much to be borne by the cultivators. The State Technical Department should arrange for providing boring tools and expert workers. It would also be desirable that boring and deepening of wells for augmenting the discharges should be carried out. The Department would require to build up adequate number of boring/deepening units for this purpose.

It is necessary that the choice in regard to the type and the size of the water lifting appliances should be exercised on the basis of water availability in the wells and the irrigation requirements. The State Technical Department should provide technical guidance in this regard.

Land shaping and lay-out of field channels have to be carried out on coordinated basis and require specialised knowledge. Active technical supervision and assistance would have to be made available by the State Government in this regard. This work can be handled by the Soil Conservation Department in the State and, if necessary, the existing soil conservation units can be strengthened for this purpose.

The State Agriculture Department/the Extension Organisation would require to play very active role in planning

and encouraging improved cropping patterns, manurial practices, suitable insecticides, pesticides and other improved agricultural practices. The cultivators would require guidance and persuasion at every stage and the technical guidance imparted in these matters would have to be adequately supported by a well-planned programme of research-cum-demonstrations.

The programme of extension of power lines for electrification of the pump sets would have to be properly dovetailed and taken up on priority basis. The planning of this programme would require close liaison between the executive department and the State Electricity Board.

Adequate arrangements would have to be made for the availability of the cooperative credit required by the cultivators for meeting the demand for the construction of irrigational wells, purchase and installation of pump-sets/water lifting appliances, construction of field channels and preparation of land from the District Cooperative Land Development Banks on long-term basis and for essential agricultural inputs from the District Central Cooperative Banks on short-term basis. Any subsidy that may be permissible on these items would be provided by the Government.

For planning, coordinating and implementing the programme, one specific agency should be made responsible.

#### 7.6 Partial Compensation of Loan for Failure of Wells

It is laid down in the loaning policy, the concessions that will be granted in respect of failed wells shall be in the form of (a) remission of total interest and (b) remission of 20 percent of the outstanding loans. In individual cases of hardship it would be open to Government to remit the amount of loan upto 50 percent or even more when it is found that the cultivator is not in a position to bear the expenditure on the construction of the well which has failed due to factors beyond his control. Such cases in respect of these cultivators in the areas should be referred to Government.

As per procedure laid down in the loaning policy, the Bank prepared the cases in respect of such wells which could not strike water even though they were dug upto 40 feet and beyond, and forwarded to the District Agricultural Officer who was reported to have forwarded them with his recommendation to the Director of Agriculture, and he also forwarded to the Government in Agriculture and Forests Department, cases recommended by him for final disposal but the Government has taken no action on these cases which are lying with it for a long time. The Appex Land Development Bank should take a lead in this matter and move the Government to take prompt action regarding these cases and extend the concessions that are to be reimbursed to the Land Development Banks by an equal amount to the banks from the funds placed at the disposal of the Director of Agriculture for grant of subsidy.

Out of the 277 sample wells, 7 wells could not strike water even though they were dug upto 40 feet and beyond and the work of another 11 wells was required to be left out due to the occurrence of hard rock. These wells can be said to have failed. They together form 6.50 percent of the total sample wells, involving a loan of Rs.39750/-

which is 6.09 percent of the total loan issued for all sample wells. As against the net loan of Rs. 35,782/- received from the Bank, the expenditure incurred on these wells amounted to Rs. 41,674/-.

The subsidy provided by the Government is really needed by those unfortunate farmers who failed to successfully sink the wells than those who have successfully sunk the wells. At present, subsidy for the construction of a new well is equivalent to 25 percent of the actual cost of construction of a new well subject to the maximum of Rs. 500/- per well, in respect of those cultivators who construct a new well within the stipulated period of 12 months from the date of receipt of the first instalment of the loan and finally sanctioned after verification that not less than 3 acres of the land under the command of the well is irrigated for at least 3 consecutive years after completion of the well. Out of 277 sample wells the Government provisionally sanctioned subsidy of Rs. 43,300/- in respect of 88 sample wells till 30-6-1966. A subsidy of Rs. 500/- to a cultivator who has successfully completed the well and has brought some area under irrigation is a meagre amount when looked to the benefit of irrigation in the form of increased output from the land. If this amount of subsidy is diverted to the cultivators who failed to successfully sink the wells, the hardship faced by them would be considerably reduced. This amount of subsidy (Rs. 43,300/-) is sufficient even to remit the entire amount of loan (Rs. 39,750/-) in respect of the 18 failed wells. As against the total loan of Rs. 39,750/-, the total expenditure incurred on these failed wells was Rs. 41,674/-.

In addition to sharing the risks of well-sinking in cases of failure to find water, the Government also should share another risk connected with the life of the well. If the well should become dry without any possibility of striking water by further deepening, before the expiry of the period of repayment of the loan, a part of the outstanding loan should be remitted.

If the progress is to be made at the full-rate attainable with the benefit to the country, such types of risks will have to be shared by the Government, particularly in tracts exposed to famine.

APPENDIX 1(a): Selection of villages from the  
Ahmednagar Taluka

Code number of village	Number of wells	Cumulative number	Code number of village	Number of wells	Cumulative number
80	43	43	23	6	675
75	31	74	24	6	681
82	29	103	39	6	687
84	29	132	40	6	693
10	23	155	44	6	699
58	23	178	56	6	705
59	22	200	3	5	710
81	21	221	29	5	715
63	19	240	33	5	720
37	18	258	38	5	725
86	18	276	68	5	730
41	17	293	85	5	735
8	15	308	89	5	740
32	14	322	4	4	744
35	13	335	12	4	748
62	13	348	26	4	752
64	13	361	50	4	756
66	13	374	60	4	760
72	13	387	78	4	764
15	12	399	100	3	767
34	12	411	25	3	770
46	12	423	45	3	773
70	12	435	51	3	776
83	12	447	67	3	779
49	11	458	71	3	782
52	11	469	79	3	785
77	11	480	92	3	788
88	11	491	94	3	791
21	10	501	98	3	794
31	10	511	2	2	796
36	10	521	13	2	798
61	10	531	18	2	800
65	10	541	73	2	802
74	10	551	87	2	804
76	10	561	90	2	806
9	9	570	91	2	808
69	9	579	95	2	810
17	8	587	96	2	812
22	8	595	97	2	814
1	7	602	11	1	815
7	7	609	30	1	816
5	7	616	43	1	817
19	7	623	48	1	818
27	7	630	54	1	819
42	7	637	55	1	820
47	7	644	57	1	821
53	7	651	93	1	822
6	6	657	99	1	823
16	6	663			
20	6	669			

APPENDIX 1(b): Selection of villages from the Shrigonda Taluka

(The village code numbers underlined indicate the code number of the village selected)

Code number of village	Number of wells	Cumulative number	Code number of village	Number of wells	Cumulative number
5	34	34	55	7	475
26	32	66	11	6	481
18	28	94	17	6	487
10	27	118	21	6	493
13	18	136	25	6	499
19	17	153	34	6	505
42	17	170	57	6	511
12	16	186	58	6	517
1	15	201	63	6	523
9	15	216	66	6	529
61	14	230	41	5	534
62	14	244	14	4	538
43	14	258	16	4	542
7	13	271	38	4	546
46	12	283	40	4	550
51	12	295	45	4	554
3	11	306	47	4	558
49	11	317	64	4	562
2	10	328	68	4	566
4	10	338	72	4	570
22	10	348	<u>15</u>	3	573
24	10	358	29	3	576
27	10	368	35	3	579
37	10	378	23	2	581
48	10	388	36	2	583
8	9	397	50	2	585
<u>31</u>	9	405	53	2	587
33	9	414	28	1	588
39	9	423	32	1	589
56	9	432	44	1	590
30	8	440	59	1	591
6	7	447	67	1	592
20	7	454	69	1	593
52	7	461	70	1	594
54	7	468	71	1	595

APPENDIX 1(c): Selection of villages from the  
Parner Taluka

(The village code numbers underlined indicate the code number of the villages selected).

Code number of village	Number of wells	Cumulative number	Code number of village	Number of wells	Cumulative number
<u>37</u>	24	24	30	3	404
<u>12</u>	22	46	40	3	407
2	18	64	45	3	410
1	17	81	58	3	413
36	15	96	64	3	416
13	14	110	65	3	419
17	14	124	<u>70</u>	3	422
11	13	137	74	3	425
9	12	149	86	3	428
27	12	161	14	2	430
29	12	173	19	2	432
3	11	184	33	2	434
<u>31</u>	11	195	41	2	436
32	11	206	46	2	438
5	9	215	53	2	440
39	9	224	62	2	442
56	9	233	73	2	444
4	8	241	75	2	446
38	8	249	77	2	448
<u>57</u>	8	257	81	2	450
8	7	264	90	2	452
16	7	271	6	1	453
20	7	278	18	1	454
26	7	285	23	1	455
35	7	292	25	1	456
43	7	299	47	1	457
44	7	306	60	1	458
49	7	313	63	1	459
68	7	320	66	1	460
21	6	326	69	1	461
24	6	332	71	1	462
34	6	338	72	1	463
55	6	344	76	1	464
67	6	350	78	1	465
42	5	355	79	1	466
59	5	360	80	1	467
7	4	364	82	1	468
28	4	368	83	1	469
<u>48</u>	4	372	84	1	470
50	4	376	85	1	471
51	4	380	87	1	472
52	4	384	88	1	473
54	4	388	89	1	474
61	4	392	91	1	475
10	3	395	92	1	476
15	3	398	93	1	477
22	3	401	94	1	478



APPENDIX 1(d): Selection of villages from the  
Karjat Taluka

(The village code numbers underlined,  
indicate the code numbers of the  
villages selected)

Code number of village	Number of wells	Cumula- tive number	Code number of village	Number of wells	Cumula- tive number
57	32	32	51	4	262
4	14	46	58	4	266
<u>54</u>	13	59	61	4	270
6	11	70	9	3	273
8	11	81	19	3	276
11	11	92	21	3	279
<u>31</u>	11	103	22	3	282
<u>34</u>	11	114	32	3	285
<u>42</u>	9	123	41	3	288
26	8	131	53	3	291
49	8	139	55	3	294
10	7	146	64	3	297
15	7	153	2	2	299
37	7	160	23	2	301
44	7	167	24	2	303
12	6	173	25	2	305
17	6	179	27	2	307
20	6	185	33	2	309
48	6	191	35	2	311
52	6	197	43	2	313
56	6	203	59	2	315
3	5	208	60	2	317
7	5	213	63	2	319
14	5	218	67	2	321
36	5	223	5	1	322
40	5	228	13	1	323
47	5	233	18	1	324
65	5	238	28	1	325
1	4	242	45	1	326
29	4	246	46	1	327
30	4	250	62	1	328
38	4	254	66	1	329
39	4	258	68	1	330

APPENDIX 1(e): Selection of village from the  
Jamkhed Taluka

(The village code numbers underlined  
indicate the code numbers of the  
villages selected)

Code number of village	Number of wells	Cumulative number	Code number of village	Number of wells	Cumulative number
2	15	15	16	2	150
<u>3</u>	13	28	18	2	152
14	12	40	22	2	154
26	12	52	27	2	156
1	11	63	32	2	158
6	9	72	34	2	160
12	9	81	37	2	162
4	6	87	44	2	164
17	6	93	47	2	166
20	6	99	10	1	167
40	6	105	15	1	168
5	5	110	24	1	169
8	5	115	25	1	170
33	5	120	28	1	171
23	4	124	31	1	172
29	4	128	36	1	173
<u>30</u>	4	132	38	1	174
9	3	135	39	1	175
			41	1	176
11	3	138	42	1	177
21	3	141	43	1	178
35	3	144	45	1	179
7	2	146	46	1	180
13	2	148			



(ii) Material

Kind	Place	Distance	Quantity	Rate	Cost	Trans- port charges	Total cost paid
_____	_____	_____	_____	_____	_____	_____	_____

(iii) Total expenses on digging work

Material Rs. \_\_\_\_\_ Labour Rs. \_\_\_\_\_ Total Rs. \_\_\_\_\_

9. Construction-work done

	Depth	Diameter
Well	_____	_____
Water-trough	_____	_____
When constructed	_____	_____

10. Expenses on Construction-work

(i) Material

Kind	Place	Dis- tance	Quan- tity	Rate	Cost	Trans- port charges	Total cost paid
_____	_____	_____	_____	_____	_____	_____	_____

(ii) Labour

Family Labour			Paid Labour			Labour Rates		Labour charges paid		To- tal
Men	Wo- men	Work- ing days	Men	Wo- men	Work- ing days	Men	Wo- men	Men	Wo- men	
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

(iii) Total Expenses on Construction-work:

Material Rs. \_\_\_\_\_ Labour Rs. \_\_\_\_\_

Total Rs. \_\_\_\_\_

11. Water-bags and Wooden frame

No. of water bags \_\_\_\_\_ Cost of water bags and ropes Rs. \_\_\_\_\_

Cost of wooden frame and wheels Rs. \_\_\_\_\_ Total cost Rs. \_\_\_\_\_

12. Run-way

Family Labour			Paid Labour			Labour Rates		Total labour charges paid		
Men	Wo-men	Work-ing days	Men	Wo-men	Work-ing days	Men	Wo-men	Men	Wo-men	Total

13. Land Improvement

Type	Family Labour			Paid Labour			Labour Rates		Total labour charges paid		
	Men	Wo-men	Work-ing days	Men	Wo-men	Work-ing days	Men	Wo-men	Men	Wo-men	Total

- (i) Irriga-tional channels  
(ii) Bunding  
(iii) Any other  
Total

14. Grand Total Expenses

(Sr. Nos. 8 + 10 + 11 + 12 + 13). Rs. \_\_\_\_\_

15. Depth at which water was struck?

Water level:- Rainy season \_\_\_\_\_ Winter \_\_\_\_\_  
Summer \_\_\_\_\_

III. Other Capital Expenditure

1. Oil Engine:- If oil engine is installed on the wells:-

- (i) Oil engine:-

Year of purchase	Make	H.P.	Cost Rs.	Suction Pipe Length	Pipe Dia- meter	Cost
------------------	------	------	----------	---------------------	-----------------	------

Delivery Pipe Len- gth	Dia- meter	Cost	Transport charges	Total cost
------------------------	------------	------	-------------------	------------

(ii) Other associated cost:-

Fitting Expenses Rs. \_\_\_\_\_

Cost of engine shed \_\_\_\_\_

Total Rs. \_\_\_\_\_

(iii) Total cost (i + ii) Rs. \_\_\_\_\_

2. Bullocks

Present strength of bullocks (no) \_\_\_\_\_

Strength of bullocks prior to irrigation (no) \_\_\_\_\_

Increase in bullocks due to irrigation:-

no \_\_\_\_\_ Cost Rs. \_\_\_\_\_ Year of purchase \_\_\_\_\_

3. Sources of Meeting out the above-said expenses:-

<u>Purpose</u>	<u>Total Cost (Rs.)</u>	<u>Sources</u>	<u>Amount (Rs.)</u>
Oil engine			
Bullocks			
Total			

IV Area brought under Irrigation and Crops taken:-

1. Area:-

(i) Area brought under irrigation (acres) \_\_\_\_\_

Year \_\_\_\_\_

(ii) Can you bring more acreage under irrigation? If not, why? \_\_\_\_\_

2. Crops:- When have you started taking irrigated crops on the well? (year) \_\_\_\_\_

(i) Crops taken after irrigation

<u>Year</u>	<u>Type of crops</u>	<u>Season</u>	<u>acres</u>	<u>Production (quantity)</u>
1964-65				
1965-66				
1967-68				

(ii) Crops taken in the same area before irrigation

<u>Year</u>	<u>Type of crops</u>	<u>Season</u>	<u>acres</u>	<u>Production (qty)</u>

3. Do you think that the well-work is incomplete?

Additional work required:-

	<u>Depth</u>	<u>Probable cost</u>	<u>Additional acreage that can be brought under irrigation</u>
Digging			
Construction			
Total			

4. Reasons for keeping the well-work incomplete:

V. Additional Annual (working) Expenses

1. Oil engine:-

(i) Oil charges

<u>Year</u>	<u>type of oil</u>	<u>Quantity</u>	<u>Rate</u>	<u>Cost</u>
1964-65				
1965-66				
1966-67				

(ii) Repairs to oil engine

<u>Year</u>	<u>Type of repair</u>	<u>Expenses</u>
1964-65		
1965-66		
1966-67		

(iii) Total expenses (i + ii)

<u>Year</u>	<u>Rs.</u>
1964-65	
1965-66	
1966-67	

2. Additional expenses on Manures and Fertilizers, seeds and plants, Insecticides and Pesticides used for the crops raised in the land brought under irrigation

<u>Year</u>	<u>Type of Input</u>	<u>Quantity</u>	<u>Rate</u>	<u>Cost</u>	<u>Farm produced Manures Seeds (qty.)</u>	<u>Type Qty</u>
1964-65						
1965-66						
1966-67						

3. Additional labour charges on casual, seasonal and permanent labour due to irrigation

(i) Paid labour

Year	Type of labour			Casual			Seasonal			Permanent			Total labour charges	
	Men	Women	Total	No.	Days	Rate	Charges	No.	Days	Rate	Charges	No.		Rate
1964-65														
1965-66														
1966-67														

(ii) Family labour

Year	Type of labour			Casual		Seasonal		Permanent
	Men	Women	Total	No.	Days	No.	Season	
1964-65								
1965-66								
1966-67								

4. Feeds and Fodders (additional):-

Year	Type	Quantity used	Rate	Cost
1964-65				
1965-66				
1966-67				

5. Total additional working expenses (excluding family labour) (1 + 2 + 3 + 4)

Year	Rs.
1964-65	
1965-66	
1966-67	



VI. Bank loan for the well

- (i) Date of application \_\_\_\_\_  
 Demand Rs. \_\_\_\_\_  
 Application received by B.D.O. on \_\_\_\_\_  
 Loan recommended Rs. \_\_\_\_\_  
 Application received by Branch of the Bank on \_\_\_\_\_  
 Loan recommended Rs. \_\_\_\_\_  
 Application received by H.C. of Bank on \_\_\_\_\_  
 Loan sanctioned Rs. \_\_\_\_\_  
 Date of sanction \_\_\_\_\_  
 Loan eligible Rs. \_\_\_\_\_  
 First Instalment issued on \_\_\_\_\_ Rs. \_\_\_\_\_  
 Deductions made:- Type Amt Cash paid Rs. \_\_\_\_\_  
 Second Instalment issued on \_\_\_\_\_ Rs. \_\_\_\_\_  
 Deductions made:- Type Amt Cash paid Rs. \_\_\_\_\_
- (ii) Reasons for not sanctioning loan as per demand:-
- (iii) Subsidy received:- Date \_\_\_\_\_ Amt Rs. \_\_\_\_\_  
 If not received, reasons thereof:-
- (iv) Repayment of Instalment:-
- | <u>Amount of Instalment</u> | <u>No. of Instalments paid</u> | <u>Sources of repayment</u> | <u>Amount repaid</u> |
|-----------------------------|--------------------------------|-----------------------------|----------------------|
|                             |                                |                             |                      |
- (v) Instalments defaulted:-
- | <u>Amount defaulted</u> | <u>Date of default</u> | <u>Reasons for default</u> |
|-------------------------|------------------------|----------------------------|
|                         |                        |                            |
- (vi) Did you come across any difficulties in the process of obtaining loan?
- (vii) Were there any compelling circumstances under which you were required to utilize the bank loan for some other purposes?
- | <u>Purposes</u> | <u>Amount spent</u> |
|-----------------|---------------------|
|                 |                     |
- (viii) How did you manage for the excess expenditure over the bank loan?
- | <u>Sources</u> | <u>Amount raised</u> |
|----------------|----------------------|
|                |                      |
- (ix) Had any official visited the spot during the course of sinking of wells, or after, for verification?
- Designation \_\_\_\_\_  
 Date of visit \_\_\_\_\_  
 Particulars of his report:-  
 Depth \_\_\_\_\_ Diameter \_\_\_\_\_ Construction \_\_\_\_\_  
 Remarks: \_\_\_\_\_

VII. Other Remarks

GLOSSARY OF VERNACULAR TERMS USED

Crops	Vernacular name	English name	Scientific name
<u>Cereals</u>	Jowar	Great Millet	<u>Sorghum vulgare</u>
	Bajara	Spiked Millet	<u>Pennisetum typhoides</u>
	Gahu	Wheat	<u>Triticum durum</u>
	Hulga	Horse Gram	<u>Dolichos biflorus</u> L.
	Makka	Maize	<u>Zea mays</u>
<u>Pulses</u>	Harbhara	Bengal Gram	<u>Cicer arietinum</u>
	Tur	Pigeon pea	<u>Cajanus indicus</u>
	Moong	Green Gram	<u>Phaseolus munga</u>
<u>Oilseeds</u>	Sheng	Groundnut	<u>Arachis hypogaea</u>
	Karadi	Safflower	<u>Carthamus tinctorius</u> Linn.
<u>Condiments</u>	Kanda	Onions	<u>Allium cepa</u>
	Lasun	Garlic	<u>Allium sativum</u>
	Mirchi	Chillies	<u>Capsicum annum</u>
<u>Fibres</u>	Kapus	Indian Cotton	<u>Gossypium herbaceum</u>
<u>Vegetables</u>	Wangi	Brinjals	<u>Solanum melongena</u>
	Tomato	Tomato	<u>Lycopersicum esculentum</u>
	Batata	Potato	<u>Solanum tuberosum</u>
<u>Fruits</u>	Mosambi	Mosambi	<u>Citrus sinensis</u> Linn.
	Santra	Santra (Orange)	<u>Citrus reticulata</u> Linn.
	Limbu	Kagzi Lime	<u>Citrus aurantium</u> L.
<u>Flowers</u>	Shevanti	Chrysanthemum	<u>Chrysanthemum indicum</u> Linn.
<u>Sugars</u>	Oos	Sugarcane	<u>Saccharum officinarum</u> L.
<u>Fodders</u>	Ghas	Lucerne	<u>Medicago sativa</u> L.
<u>Wild Plants</u>	Saundad	-	<u>Prosopis spicigera</u> Linn.
	Vasanvel	-	<u>Cocculus hirsutus</u>
	Apta	-	<u>Bauhinia racemosa</u> Lamk.
	Palas	-	<u>Butea monosperma</u>
	Ruit	-	<u>Calotropis gigantia</u>
	Umber	-	<u>Ficus glomerata</u>
<u>Other names</u>	Talathi	.....	Village servant
	Gram Sevak	.....	Village-Level-Worker
	Patil	.....	Head of the village
	Mot	.....	Water-Bag
	Tharole	.....	Water-Trough
	Nada, Saunder	.....	Main draw ropes
Dhanvpatti	.....	Run-way	

SELECT BIBLIOGRAPHYBooks

- Mehkri, M.G., Land Mortgage Banks, 1951.
- Ghosal, S.N., Agricultural Financing in India, 1963.
- Mann, Harold, H., Famine and Rainfall, 1955.
- Bhatia, B.M., Famines in India, 1963.
- Gadgil, D.R., The Industrial Evolution of India in Recent Times, 4th Edition, Oxford University Press, Calcutta, Reprinted, 1948.
- Satischandra Ray, Economic Causes of Famines in India, 1909.
- Loveday, A., The History and Economics of Indian Famines, 1914.
- Ronald, A. Fisher and Frank Yates, The Statistical Tables for Biological, Agricultural and Medical Research, 1943.
- Gadgil, D.R., Economic Effects of Irrigation, 1948.
- Donald, D.W.A., Compound Interest and Annuities - Certain, 1953.

Reports

- The Famine Inquiry Commission, Final Report, 1945.
- The Grow More Food Inquiry Committee Report, Government of India, Ministry of Food and Agriculture, 1952.
- The First Five Year Plan, Government of India, Planning Commission, New Delhi, 1953.
- The Third Five Year Plan, Government of India, Planning Commission, New Delhi, 1961.
- The Fourth Five Year Plan - A Draft Outline, Government of India, Planning Commission, New Delhi, 1966.
- Manual for Minor Irrigation Works, Community Projects Administration, Government of India, 1956.
- The India-Irrigation Commission of 1901-03, Report, Parts I and II, 1903.
- Committee of Plan-Projects (Irrigation Team) - Report on Minor Irrigation Works (Maharashtra State), New Delhi, 1963.
- The Reserve Bank of India, Preliminary Report, 1936.
- The Third Five Year Plan, Maharashtra State, 1961.
- The Royal Commission on Agriculture, Report, 1928.

The Committee on Taccavi Loans and Cooperative Credit, Ministry of Community Development and Cooperation, Government of India, Report, 1962.

Nicholson, F.A., Report regarding the possibility of introducing Land and Agricultural Banks into the Madras Presidency, Vol. I, 1895.

Louis M. Tardy, Report on the System of Agricultural Credit and Insurance.

The Bihar and Orissa Banking Enquiry Committee, Report, 1939.

The Report of the Land Mortgage Committee, Published by the Standing Committee of the Bombay Presidency Cooperative Conference, 1934.

The Central Banking Enquiry Committee, Report, Vol.I, 1931.

The Statutory Report of 1937, The Reserve Bank of India, 1937.

All-India Rural Credit Survey Report of the Committee of Direction, Vol. II, General Report, 1954.

The Bombay Gazetteer, Ahmednagar, Vol. XVII, 1884.

Statistical Atlas of India, 1895.

The Report on the Famine in the Bombay Presidency, 1899-1902, Bombay, 1903.

Memorandum on Indian Irrigation Commission, 1901-03, Part I, 1903.

The Annual Reports of the Bombay State Cooperative Land Mortgage Bank, 1960 to 1966.

The Annual Reports of the Ahmednagar District Cooperative Land Development Bank, 1960 to 1966.

### Journals

The Bombay State Cooperative Land Mortgage Bank, Souvenir, 1965.

The Bombay Provincial Cooperative Conference, 1914.

Cooperative Maharashtra - Land Development Banking Number, 1963.

The Journals of the All-India Central Land Mortgage Banks Cooperative Union, 1960 to 1966.