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THE FARMER
HIS WELFARE & WEALTH

Studies in Agricultural Economics—Study No. 1

THE FARMER
HIS WELFARE & WEALTH

BY

DR. M. G. BHAGAT, M.A., Ph.D.

WITH A FOREWORD BY

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To

B. Y. D.

FOREWORD

For many years there has been an active group of economists in the Bombay Province who have not been content with theorising but have attempted regional surveys and to apply economic principles to the facts brought out in such surveys. The earlier workers generally took the village as the unit and their surveys were of families living in a village or a group of villages, the villages and the families being selected on the representative method of typical villages and typical families. The only case that I know where the selection was made not by the representative method but by the present-day statistical method of random sampling was in the Ajmer province where a statistician of the Government College has successfully applied it to the study of the economic condition of villages in that province in connection with the recent Census.

In recent years some of the students of economics in Bombay have chosen for their investigations a larger unit than a village, the unit generally chosen being a taluka which is an administrative division composed of a collection of villages administered by a Mamlatdar or Tahasildar. These administrative sub-divisions of a district are, generally speaking, not arbitrarily made purely for the ease of collection of Government's land revenue, but have also reference to geographical considerations, prevailing soils and so forth. There is, therefore, a unity in a taluka and socio-economic studies based on such a unity are likely to yield valuable results. Some years ago I had occasion to read such a study of a taluka in Gujarat when I wrote a preface to the young author's book. The present book is a pioneer in the same direction so far as the Marathi-speaking districts of Bombay are concerned.

Arguments can be advanced both for and against the taluka being chosen as a unit, but where the particular region chosen is a homogenous tract like the Bhiwandi taluka in North Konkan, I can see no reasonable objection to the

choice. The great point is that what we need is a collection of facts ascertained by patient, personal investigation to which economic principles can afterwards be applied. Too often statements are made on the strength of pre-conceived impressions coloured either by economic or political theories. Any economic rehabilitation of our villages must be preceded by a careful ascertainment of facts made in the white light of truth undistorted by emotion. This is all the more necessary as at the recent Census, much of the economic and sociological information usually ascertained has had to be cut down owing to the economy enforced by War.

To persons interested in a study such as the one I have described I can warmly commend Mr. Bhagat's book. He is obviously trained in the art of collecting facts—not such an easy thing as at first sight it might be supposed—and the book amply vindicates the methods he has chosen. It is a complete picture of the life of the farmers in all its varied aspects, and if the picture presented is depressing, that is because the region investigated is typical of the old, unprogressive taluka where no commercial crops have been introduced and where little of new life and activity has found its way. Personally I can honestly call this book a fascinating study. It is so true a picture of the country-side. I congratulate the author on the result.

T. VIJAYARAGHAVACHARYA

Bombay, 1st February, 1943.

PREFACE

After the completion of my M.A. Thesis on the social and economic conditions of the untouchables in Maharashtra, I was employed in the Bombay Provincial Co-operative Bank as a Special Inquiry Officer to investigate the financial position of the members of the primary co-operative societies in the Bhiwandi Taluka, Thana District. While I was carrying out this work, one prominent idea came to my mind and that was that irrespective of caste-barriers, all the agriculturists including the untouchable agriculturists have to share a common lot with regard to the economic life except in the case of the latter, the cast-barriers come in their way of 'better-living'. Thus I was induced to investigate the economic and social life of the agriculturists, irrespective of caste and religion. The University of Bombay was pleased to award me a research studentship and so I undertook the work of investigation, in detail. The present work is the result of these investigations for which the Ph.D. degree is awarded to me.

Some preliminary work was done by me, while I was in the service of the Provincial Co-operative Bank, but actually I undertook the work of investigation in the year 1936-37. I toured for six months to collect information according to the questionnaire Nos. 1 and 2, given in Appendix No. C, about the 760 families under survey. Then I collected the detailed information about the villages under survey in the year 1937-38 according to the questionnaire No. 3 and it took five months to collect the information. In the same year I devoted about three months to collect the information from the various offices, such as the Mamlatdar's office, the Provincial Co-operative Bank, Bhiwandi Branch, the Supervising Union, Bhiwandi and the District Local Board, Thana. In the year 1938-39 I collected the family-budgets of 527 families out of the 760 families, in 32 villages, according to the questionnaire No. 4 and this took about five months. In the year 1939-40 I revisited all the villages under survey to study the social problems and to collect the folk-songs, and I also collected the statistical data about the primary education from the office of the Taluka Headmaster, Bhiwandi. I devoted four

months for all that. Thus, the present work required about two years for carrying out the investigations alone.

My thanks are due to all the persons both officials and non-officials who had taken keen interest in my work and had shown their readiness to help me in every way possible. At the outset, I must thank Sjt. V. L. Mehta, the Managing-Director of the Bombay Provincial Co-operative Bank, Ltd., who was so kind to me and took so much interest in my work that he readily helped me in every project that I asked for. I am also thankful to Mr. M. S. Jaykar the then-Collector of the Thana District and Mr. N. K. Dhamdhere the then-Mamlatdar of the Bhiwandi Taluka, who gave me every facility to carry out the work. Besides these persons, I am indebted to Messrs. J. G. Bhalekar, S. N. Lathore, Shivram Patil of Manivali and Bhauram Patil of Chave and last but not the least to late Mr. D. W. Raut, M.L.A., who undertook to help me in every way possible with great enthusiasm and at their great inconvenience.

I am grateful to Dr. G. S. Ghurye, M.A., Ph.D. (Cantab.), University Professor of Sociology, School of Economics and Sociology, University of Bombay, for his guidance throughout the preparation of this work. I am also grateful to Dewan Bahadur Sir T. Vijayaraghavacharya, K.B.E., the Prime Minister of Udaipur State for his kind encouragement in readily responding to my request for a foreword to this book.

My thanks are due to Miss Durga N. Bhagvat, M.A., for translating the Marathi folk-songs into English and helping me to prepare the index of the book. I am also thankful to Mr. D. V. Sathe, M.A., B.T., S.T.C., teacher Wilson High School Bombay, for going through the manuscripts and correcting the proofs at a great sacrifice of his time.

I am greatly indebted to Mr. V. R. Amberkar, M.A., Director Industrial Art Studio Bombay, for drawing an excellent and significant picture for the jacket of the book.

Finally, I acknowledge my indebtedness to the University of Bombay for the substantial financial help it has granted towards the cost of the publication of this work.

Bombay Prov. Co-op. Bank, Ltd.,
Fort, Bombay, 1st March 1943.

M. G. BHAGAT

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INTRODUCTION

It is hardly necessary to argue out the need for detailed surveys of various regions, so as to enable us to form a definite idea of the conditions and the problems of our agriculturists. The average cultivator in India is losing fast the charm of proprietorship in his land, where the burden of his indebtedness is so crushing that he can hardly breathe with ease and his ignorance is so appallingly deep that the rays of light hardly ever penetrate it. These conditions prevail all over the country but a close examination will also reveal significant differences. It is from this point of view that a socio-economic survey of the Bhiwandi Taluka was undertaken.

Two methods have been devised for the study of rural economic and social problems, each suited to the size of the unit adopted for the study. The first method consists in selecting a village and studying it intensively in all its aspects. Various village surveys along these lines have been carried out, in the Marathi-speaking Districts of the Bombay Province. The first survey *Gav-gada* about the Deccan village community, was carried out, some 25 years ago, by late Mr. T. N. Atre. Dr. Mann has surveyed two villages in the Deccan, Pimpla-Soudagar and Jategaon-Budruk. Mr. V. G. Ranade has carried out an economic survey of a Konkan village. Prof. N. G. Chapekar has intensively studied his village 'Badlapur' and Mr. L. B. Jagalpure has surveyed the 'Sarola-Kasar' village in the Ahmednagar District.

These village surveys are of immense use for an understanding of the rural problems in their various aspects and indeed they are valuable additions to our knowledge of Indian rural life. But it is quite obvious that a village is a small unit and the social and economic problems of the country in their entirety cannot be seen in their proper perspective, unless several villages forming a larger and self-sufficient unit are studied together. Naturally, the second method is to study intensively a group of homogenous villages preferably

a taluka—a revenue unit—wherein one can find a true and realistic picture of an average villager in all his activities, both moral and material. So far, no such a taluka survey has been carried out in the Marathi-speaking Districts of the Bombay Province. The present work thus represents probably the first attempt to find out on a systematic and scientific basis, what a villager is and what his requirements are, in the background of his region.

But it should be remembered that the measures to emancipate a villager from the heavy load of indebtedness under which he is groaning are probably the only foundation on which a Scheme for Rural Development can be built ; and in this Scheme of Emancipation, the most essential factor is the Co-operative Movement. It is from this point of view that a majority of the families studied in this survey are selected from the members of the Primary Co-operative Societies. Obviously, it has become possible for us to study closely how far the Co-operative Movement has helped to solve the rural problems and if it has failed what factors have contirbuted to its failure.

At the end of the present War, the country will have to face various problems of rural economy that will arise out of the chaos and confusion. So, at this juncture it will be the duty of all those who subscribe to the principles of Co-operation to formulate their views on the place of Co-operation, in Post-War Reconstruction in Rural India, so that the future democratic government can go to the help of the farmers by adopting suitable measures to carry out a detailed programme of local rehabilitation or reconstruction. It is needless to say that the regional surveys carried out intensively in different parts of India will help to form the basis of such a programme.

CHAPTER I

THE PHYSICAL AND GENERAL SURVEY OF THE TALUKA

Short History :

The taluka of Bhiwandi is in the North Konkan and it is under the Thana Collectorate of the Bombay Presidency. Its history may be divided into five periods : an early Hindu period coming down to, about 1300 A.D. ; a Muslim period lasting from 1300 A.D. to about 1500 A.D. ; Portuguese period from 1500 A.D. to 1660 A.D. ; Maratha period 1660 A.D. to 1818 A.D. and the British period since 1818.

The name Bhiwandi might have been derived from the word Binda (corrupt form of Bunder) which was a name given by Ptolemy, the Egyptian traveller, in the year 150 A.D. to the Bassein Creek. Bhiwandi was a trade centre owing to its position on a navigable stream on the district line of traffic through the Thal pass, in the early Hindu period.

About the close of the second century (178 A.D.), Rudradaman, one of the great Khatrap Kings of Gujarat, had recorded a double defeat of a Shatkarin and recovered the North Konkan. Then about the end of the fourth century, the discovery of two hoards of Silver coins bearing the legend of Krishna Raja, seems to show that the early Chitrakuta King Krishna (375 A.D.-400 A.D.) held possession of the North Konkan.[1]

The Chief of Kalyan described by Kosmas, was a Maurya, Krishna Varma by name (550 A.D.-567 A.D.). The first of the Chalukyas who drew his arms against Konkan is described as the night of death to the Mauryas.[2] The Chalukya General with hundreds of ships attacked the Maurya capital Puri. A stone inscription from Vada, in the North of Thana, shows that the Maurya King Suketu Varma, by name, was ruling in the Konkan in the 4th or 5th century and it is probable that the group of figures in the Lonad cave, six miles

[1] *Gazetteer of Bombay Presidency*, Vol. XIII, Part II, p. 417.
[2] *Indian Antiquary*, Vol. VIII, p. 244.

south-east of Bhiwandi, which belongs to the sixth or seventh century, represents the court of a Mauryan King.[1]

No further notice of the North Konkan has been traced, till the rise of Shilaharas, who ruled in North Konkan from about 810 A.D. to 1260 A.D. Of the eighth King of this dynasty, by name Birund Karam, a copper plate, dated Shak 919, has recently been found at Bher, about ten miles north of Bhiwandi. The copper plate records the grant of Shristanak (Thana) and of Bhadane, a village about 8 miles east of Bhiwandi, for the worship of Londitya, whose temple is in Lavanatala (Lonad).[2]

During the latter part of the 13th century, the north Konkan seems to have been ruled by the Viceroys of the Devgiri-Yadavs, whose headquarters were at Karnala and Bassein. Two grants, dated 1273 A.D. and 1291 A.D. record the gift of two villages, Anjur in Bhiwandi and Vavla in Salsette (Shatshasthi) by two Konkan Viceroys of Ramachandra Deo, the fifth Yadao Ruler of Devgiri. Two stone inscriptions, dated 1280 A.D. and 1288 A.D., recording gifts by Ramachandra Deo's officers, have also been found near Bhiwandi and Bassein.[3]

Early in the 14th century, the Turk Rulers of Delhi found their way to Thana from two sides. Alp Khan (1300 A.D.-1318 A.D.) who established the power of Allauddin Khilji in Gujarat, came as far south as Sanjan. The conquest of Sanjan, probably took place between 1312 A.D. and 1318 A.D. Up to 1309 A.D. the south of Gujarat had been under the Yadav King, Ramachandra Devgiri and after his death, under his son Shankar. He refused to pay tribute to the Turks and was killed in 1313 A.D. After the fall of Devgiri (1318 A.D.) the Emperor Mubariq I (1317 A.D.-1321 A.D.) ordered his kingdom to be extended to the sea and occupied Mahim near Bombay and Salsette.[4]

In 1498 A.D. when the whole coast line from Goa to Bassein had lately passed to Bijapur and Gujarat, the Portu-

[1] *Thana Gazetteer*, Vol. XIII, p. 421.
[2] *Ibid.*, p 437.
[3] *Ibid.*, p. 437.
[4] *Ibid.*, p. 438.

guese rounded the Cape of Good Hope and appeared on the Calicut coast. With the Ahmednagar dynasty they continued as faithful allies. After the fall of the Portuguese, the Marathas established their suzerainty over Konkan, till the fall of the Peshwas in 1818 and after that period it was annexed to the British territories.

Boundaries :

The Bhiwandi Taluka consists of a compact block of villages lying between the Bhatsa, Ulhas and Tansa rivers. It is bounded on the north by the Vada Taluka, on the east by the Shahapur and Kalyan Talukas, on the south by the Kalyan Taluka and on the west by the Salsette and Bassein Talukas.

Area :

The total area of the Taluka is 1,69,731 Acres and 29 gunthas. The occupied land is 79,776 acres and 26 gunthas, out of which occupied waste land is about 834 acres and 20 gunthas, thus making the net area under cultivation 78,942 acres and 6 gunthas and the Government waste land is 1,732 acres and 13 gunthas and the grazing land is 8,080 acres and 13 gunthas.

Physical features :

The southern and the central parts of the Taluka are fairly level, well tilled, comparatively bare of trees and intersected by cart tracks in every direction ; the same may be said of the northern-central part lying in the Tansa water-shed. The flat lands near the Tansa have a thick growth of teak, Ain and other common trees. The ranges of hills which run north and south are fairly covered with timber, while the hills on the east and west are full of forests. The Mahuli Hills in the east have also good forests and the Kamandurg, Golari and Dyahari Hills in the west have very large and valuable reserves on the slopes and in the valleys. In the south-east part, south of Rahur and down to the Bhatsa river, there is a broad extent of black-soil country, inter-mixed with flat-uplands, rising about 50 ft. above the plain, upon which the soil is reddish but abundant. North of the Agra Road, the

country is generally an upland with poor red soil, while the black soil lies south of the road. In the cultivated tracks, trees are scarce, but the uplands are well covered with brush-wood and tree-growth. South and west of Bhiwandi and all along the creek, the country is very flat and low, devoid of trees and shrubs and intersected by innumerable small creeks.

Water system :

The Bhatsa and Ulhas rivers, whose junction takes place opposite the village Deorung of the Bhiwandi Taluka, form the southern boundary of the Taluka and the combined waters of both the rivers flow into the Tansa Bassein Creek which forms the Bhiwandi boundary for a few miles on the south-western corner. The other important rivers in the Taluka are the Tansa, the Saitani, the Kamvari, the Kumbhari and the Varna. The Tansa, in whose bed are the famous hot springs, rises near Khardi in the Shahapur Taluka, flows by the north-front of the great Hill of Mahuli, borders the north of Bhiwandi, passes the celebrated holy place of Vajrabai and entering the Bassein Taluka falls into the Vaitarna, about eight miles from the sea. The Saitani river which is a tributary of the Tansa, rises in the small detached hill of Jambivali, flows in the westerly direction and then turning up north, falls into the Tansa river. The Kamvari river rises in the hills of Mahuli and first flowing east, turns down south and passing north of the town of Bhiwandi, falls into the Tansa-Bassein creek. The Kumbhari river rises among the northern spurs of the Mahuli hills and flowing south through the gap in the hills of Mohondal, joins the Bhatsa river near Vandra. The Varna river rises in the eastern slope of the Ghotara Fort Hill and flowing south falls into the Bhiwandi creek. The general description of the Thana rivers given in the Bombay Gazetteer applies more or less to all these rivers. " Rising in the western slope of Sahyadri, at the farthest, not more than fifty miles from the sea, none of the Thana rivers drain a large enough area to gain any size of importance. Dashing over the black trap-scraps of Sahyadri, their waters gather in the woods, at the base of the cliffs and along rocky deep-cut channels and force

a passage among the Hills. In the plain, except where they have to find their way round some range of hills, their course lies westward between steep banks from ten to thirty feet high, over rocky beds crossed at intervals, by lines of trap dykes. During the rains, they bear to the sea a large volume of water, but in the fair season, the channels of most of them are chains of pools, divided by walls of rock." [1]

Other sources of water :

"The Bhiwandi town is copiously supplied with water by pipes from a large tank about two miles away, but the only pity is that this storage of water has become of late, unfit for drinking purposes."[2] The tank was originally a lake 5,164 ft. long, 2,821 ft. broad and its depth was 21 ft. and it held water all the year round ; but because the water is now unfit for drinking purposes, a great scarcity of water is felt during the summer.

In the villages, the water is fairly abundant but "the scarcity of water during the hot season, noticed by Captain Frances at the Original Survey still continues as before."[3] In the following table the number of wells and tanks used for drinking purposes is given according to the population of the villages :—(See page 6 for Table.)

There are in all 205 villages in the Taluka out of which 4 villages are deserted villages. Out of these 201 villages two villages Bhiwandi and Nizampur which constitute the Bhiwandi-Nizampur Municipal area are excluded and there is no information about one small village. Thus out of the remaining 198 villages 138 villages have not to suffer heavily owing to the scarcity of water. But in the remaining 60 villages a great deal of scarcity of water is felt, more especially in the hot season. The total number of wells in the Taluka useful for drinking purposes is 455 out of which 323 wells are *pakka* while the remaining 132 are the *kaccha* wells in 185 villages. The total number of tanks in the Taluka useful for drinking purposes is 96 out of which 32 are *pakka*

[1] *Thana Gazetteer*, Vol. XIII, Part I, p. 8.
[2] *Second Revision Survey Settlement Report*, p. 7.
[3] *Ibid.*, p. 7.

Referred to on page 5]

TABLE No. 1

(Showing the sources of water for drinking purposes)

Population	Villages having no scarcity of water									Villages having scarcity of water									Total								
	Total number of villages	Wells				Tanks				Total number of villages	Wells				Tanks				Total number of villages	Wells				Tanks			
		Pakka	Kaccha	Total	No. of villages having wells	Pakka	Kaccha	Total	No. of villages having tanks		Pakka	Kaccha	Total	No. of villages having wells	Pakka	Kaccha	Total	No. of villages having tanks		Pakka	Kaccha	Total	No. of villages having wells	Pakka	Kaccha	Total	No. of villages having tanks
Below 100	26	17	11	28	21	4	2	6	4	4	2	3	5	2	...	...	..	...	30	19	14	33	23	4	2	6	4
101-200	28	29	16	45	27	2	4	6	6	9	10	11	21	9	...	2	2	2	37	39	27	66	36	2	6	8	8
201-300	35	54	15	69	32	3	9	12	11	16	19	16	35	16	...	6	6	6	51	73	31	104	48	3	15	18	17
301-400	14	20	13	33	14	3	3	6	6	8	13	13	26	8	1	3	4	4	22	33	26	59	22	4	6	10	10
401-500	12	32	5	37	12	3	1	4	4	11	16	7	23	11	...	4	4	3	23	48	12	60	23	3	5	8	7
501-600	7	18	5	23	7	3	...	3	2	2	4	4	8	2	...	...	...	...	9	22	9	31	9	3	...	3	2
601-700	4	10	5	15	4	1	6	7	3	2	6	1	7	2	...	1	1	1	6	16	6	22	6	1	7	8	4
701-800	4	4	2	6	3	3	4	7	3	1	...	4	4	1	...	2	2	1	5	4	6	10	4	3	6	9	4
801-900	2	6	...	6	2	3	1	4	2	1	3	...	3	1	...	1	1	1	3	9	...	9	3	3	2	5	3
901-1000	1	10	1	11	1	...	3	3	1	...	...	...	...	...	...	...	...	...	1	10	1	11	1	...	3	3	1
over 1000	5	25	...	25	5	4	10	14	4	6	25	...	25	5	2	2	4	3	11	50	...	50	10	6	12	18	7
Total	138	225	73	298	128	29	43	72	46	60	98	59	157	57	3	21	24	21	198	323	132	455	185	32	64	96	67

tanks, while the remaining 64 are the *kaccha* tanks in 67 villages.

Besides these wells and tanks there are separate wells for the Harijans. These are in the 93 villages wherein the Harijan population lives. Out of these 93 villages, in 37 villages, there are no wells or tanks and the Harijans have to wait " for the charitable among the caste Hindus to draw water and pour a little into their pots."' In 26 villages there are 26 *kaccha* wells for the use of the Harijans only. In 28 villages there are 28 *pakka* wells for their use and in two villages, there and four *pakka* wells for the use of the Harijans. Thus, there are 26 *kaccha* wells and 32 *pakka* wells for the use of the Harijans.

There are three main physical conditions which determine the character of agriculture. They are (i) soil, (ii) climate and (iii) rainfall. We will discuss each of these factors in detail, in relation to the Bhiwandi Taluka.

Soil :

In the low-lying parts of the villages, there is found a deposit of black-clay soil of considerable depth, and on the banks of the large rivers, deep deposits of brown river-silt-soil. The uplands are generally a poor light-coloured trap. The most fertile parts consist of black soils which are alluvial deposits and are distinguished from the deep deposits, found along the banks of large rivers, by a large proportion of clay whose shrinkage causes the surface to crack. It is generally flat but sometimes undulating ; where the deposit lies low and has the benefit of drainage from higher lands, it has been embanked and converted into rice-fields and where it is situated high, above the level of good drainage, the land lies generally fallow, producing grass, shrubs and trees only and is used as a grazing land and for bush rab. The pure alluvial deposits without any admixture of clay, found on the banks of large rivers, styled *kas* or medowlands, might advantageously be cultivated with garden produce, by means of irrigation from the many pools in the rivers, but the people are not enterprising and hard-working. Rice cultivation is carried on in this soil, in the hollows and depressions and

here and there, in small patches, near the pools, vegetables are grown. The alluvial soil is very much suitable for the growth of the mango trees, but they are not grown systematically. The Kharepat soil in the south-west is poor and shallow, lying on a gravelly substitution and not improved by any large yearly increment of silt from the adjoining uplands, which are themselves of poor trap soil.

Climate :

Owing to the proximity of the creek, Bhiwandi town has got a cool climate even in the summer. The climate of the villages is exceedingly moist for fully half the year, the rainfall being very great. "During the cold weather the air is charged with malaria and produces an extensive amount of fever which is worst in the most wooded part." [1] During March and April hot winds prevail. The greater part of the Taluka, being surrounded by hills, the air in the hot weather is "moist and close." The southern part only which is not shut off from the westerly breezes, is more pleasant and healthy. The western valley of the Varna, the south-back of Tansa or the whole of the north-east part of the Taluka is considered to be most unhealthy.

Rainfall :

The importance of rainfall is obvious in an agricultural area like the Taluka under survey. There is an absence of irrigation system and naturally the importance of rains is still more enhanced and 'it has made agriculture a mere gamble in the rain'. Generally the rainy season commences in the Taluka in the first or second week of June and ends generally by the first week of October.

Volume of water :

The following tables show the annual rainfall at Bhiwandi during three different periods :—

[1] *Survey Settlement Report*, 1895, Bhiwandi Taluka, p. 5.

(Period 1882–1892)

TABLE No. 2

(showing annual rainfall)

Year	Rainfall (inches)	+ or —; the variations from the average
1882	92.53	−15.17
1883	128.91	+21.21
1884	109.62	+ 1.90
1885	98.63	− 9.7
1886	116.74	+ 9.4
1887	114.4	+ 6.34
1888	87.13	−20.57
1889	98.65	− 9.95
1890	111.82	+ 4.12
1891	97.75	− 9.5
1892	128.92	+21.22
Average	107.70	

(Period 1908–1922)

TABLE No. 3

(showing annual rainfall)

Year	Rainfall (inches)	+ or —; variations from the average
1908	92.66	−15.20
1909	106.27	− 1.59
1910	91.21	−16.65
1911	84.24	−23.62
1912	102.35	− 5.51
1913	123.30	+15.44
1914	141.56	+33.70
1915	88.22	−19.64
1916	102.91	− 4.95
1917	174.02	+66.16
1918	81.85	−26.1
1919	106.00	− 1.86
1920	91.98	−15.88
1921	112.15	+ 4.29
1922	119.29	+11.43
Average	107.86	

(Period 1932–38)

TABLE No. 4

(showing annual rainfall)

Year	Rainfall (inches)	+ or —; variations from the average
1932	88.20	−12.76
1933	104.87	+ 3.91
1934	96.49	− 4.47
1935	89.7	−11.89
1936	84.12	−16.84
1937	112.53	+11.57
1938	131.39	+30.43
Average	100.96	

Thus, the average rainfall in the first period (1882-1892) was 107.70 inches. The average rainfall in the second period (1908-1922) was also nearly the same; but the average rainfall in the third period (1932-1938) was 100.96, much less than the first two averages. The highest fall recorded was 174.02 in 1917 which is very abnormal and the lowest 81.85 in the following year.

The rainfalls during the year 1921 and 1922, were taken to be suitable for good crops. The season in 1921 was on the whole good for *Kharip* and fair for *Rabi*, while in the year 1922 the season was on the whole a good one for both *Kharip* and *Rabi*. The rainfall in the year 1921 lasted for 93 days while in the year 1922, it was for 106 days. The following table gives the details[1] :—

TABLE No. 5

Year	Early rain 1st Jany. to 10th April		Anti monsoon 11th April to 4th June		Monsoon (Kharip) 5th June to 14th Aug.		Monsoon (Rabi) 15th Aug. to 21st Octr.		Late rains 22nd Octr. to 31st Dec.		Total	
	Fall	Rainy days	Fall	Rainy days	Fall	Rainy days	Fall	Rainy days	Fall	Rainy days	Fall	Rainy days
1921	...	...	...	...	86.72	50	25.43	43	...	...	112.15	93
1922	...	...	0.89	2	90.36	61	27.04	39	1.0	4	119.29	106

[1] *Second Revision Settlement Report* — Bhiwandi Taluka, p. 19.

Thus we find that a good season does not entirely depend upon the total rainfall but upon the proper distribution of the rainfall. According to Dr. Mann, uneven distribution of rainfall is one of the dominant features in the Presidency which upsets a good many calculations and renders agriculture an uneconomic industry.[1] Thus, an even distribution of rainfall is an essential factor in getting excellent crops.

Communications :

The Taluka possesses numerous land and water communications. There are three kinds of roads. The Provincial Government Roads, managed by the P. W. D. ; the District Local Board roads and the Taluka Local Board roads. Recently, the Taluka Local Boards have been abolished, so there are now only two kinds of roads.

Government Roads :

(i) The Bombay-Agra Road which goes from Thana to Shahapur, entering the Taluka in its south-west corner at Kalher, and passing close to the town of Bhiwandi, through the eastern part of the Taluka.

(ii) The Bhiwandi-Kalyan Road is only seven miles, but it has assumed greater importance than the Bombay-Agra Road, owing to the whole road traffic having been diverted to Kalyan by the railway. A bridge was erected over the Kalyan creek in 1916, doing away with the ferry at Kon on the Bhiwandi-Kalyan Road. This has largely facilitated the communication of Bhiwandi Taluka with the G. I. P. Railway at its through and local station Kalyan.

(iii) The Bhiwandi-Wada Road which runs from Bhiwandi direct northward up to Wada, serves as the main means of communication for all the famous Wada Paddy going to the Bhiwandi rice-mills. It's length is 24 miles and regular motor service plies on it except on heavy rainy days when the Tansa river is flooded, as there is a low-level bridge on the Tansa river.

[1] *Royal Commission on Agriculture in India*, Vol. II, Part I Evidence, p. 80.

All these three roads are metalled and are maintained in excellent condition.

The District Local Board Roads:

(i) *Bassein-Ambadi Road:* The road branches off from the Bhiwandi-Wada Road at Ambedi and passes through the holy place of Vajrabai and by the side of the famous hot springs, into the Bassein Taluka. It's length is about 10.13 miles. Owing to the importance of the hot springs, many bungalows have been built near the hot springs and rich persons from Bombay go to stay there for a change of climate. Recently, a medical sanatorium is also opened near the springs. Besides, on Sundays and on holidays, a large crowd from Bombay goes to the hot springs for picnic etc. So, naturally, the importance of this road, which starts from the Bassein railway station, is greatly enhanced.

(ii) *Kund Road:* The length of this road is only seven furlongs from the Bassein-Ambadi Road and it leads to the hot springs of Vajrabai.

The Taluka Local Board Roads:

There are in all 17 roads, formerly maintained by the Taluka Local Board but now they are in the jurisdiction of the District Local Board.

(i) *Dugad Road:* It's length is one mile and seven furlongs and it is a murum road. It starts from the mile No. 9 of the Bhiwandi-Wada Road and goes towards Dugad. Dugad is an important village in the Taluka, having a population of 687 souls. It is a place of historic importance and a commercial centre.

(ii) *Ambadi-Dighashi Road:* It is also a murum road and it's length is one mile and six furlongs. Starting from the mile No. 12 of the Bassein-Wada Road towards Dighashi, which is also a big village having a population of 743 souls.

(iii) *Akloli-Kund Road:* It's length is one mile and 2½ furlongs, starting from the mile No. 24 of the Bassein-Ambadi Road. It leads to the Akloli hot springs. Owing

to the recent colonization and the construction of modern bungalows, the traffic on this road has increased considerably.

(iv) *Angaon Road:* It's length is $3\frac{1}{2}$ furlongs, starting from the 5th mile of the Bhiwandi-Wada Road. Angaon is an important village, having a post office and a primary school upto primary leaving certificate examination standard.

(v) *Kavad Road:* It's length is three furlongs, starting from the fourth mile of the Bhiwandi-Wada Road, towards Kavad. It is a religious place as there is a *Samadhi* of Sakharam Maharaj there. The Baroda Government gives an annual donation of Rs. 44 for the upkeep of the *Samadhi.* It is a metal road.

(vi) *Anjur Road:* It's length is five miles, starting from the 31st mile of the Bombay-Agra Road, towards Anjur. Anjur is an Inam village, having a population of 2,349. It is a murum road.

(vii) *Varali-tank Road:* It's length is three furlongs, starting from the 32nd mile of the Bombay-Agra Road, towards the Varali tank in the village Kamatghar. This lake is 5,164 ft. long, 2,821 ft. broad, with masonry walls and its depth is 21 ft. and holds water all the year round. The Bhiwandi town gets water from this tank by means of pipes.

(viii) *Kon-village Road:* It's length is three furlongs and it is partly murum and partly metal road. It starts from the 2nd mile of the Kalyan-Bhiwandi Road.

(ix) *Amne-Talavdi (Nardkar) Road:* It's length is about three miles and it is partly metal and partly murum road. It starts from the mile No. 41 of the Bombay-Agra Road.

(x) *Amne-Bapgaon Road:* It's length is four miles and it is a murum road, starting from Amne to Bapgaon.

(xi) *Padgha-Borivali Road:* It's length is about five furlongs and it is a metal road. It starts from Padgha, i.e. from the mile No. 42 on the Bombay-Agra Road, towards Borivali. Borivali is a place of commercial importance, having entirely Muslim population.

(xii) *Padla-Khadavali Road :* It's length is one mile and seven furlongs, starting from the 44th mile of the Bombay-Agra Road, towards Khadavali, which is a G. I. P. Railway station. It is a murum road.

(xiii) *Bhiwandi-Khadi Road :* It's length is about five miles and it is a murum road. If it is extended to about ten miles more, it will connect Bhiwandi and Bassein, which will be immediately helpful for trade and commerce, as it will save 15 miles, as compared with the present Bassein-Bhiwandi road.

Besides, there are four by-roads, viz. the Kalher road, the Kashali road, the Mahapoli road and the Chave foot-path with wooden bridge. All these are murum roads.

In addition to these roads, there are numerous fair-weather cart tracks, spread all over the Taluka, by which produce is carried to the market centres.

The Taluka possesses natural advantages for communications by water. They are provided by the port of Bhiwandi itself, minor ports on what is known properly as the Bhiwandi Creek, and numerous other ports on the Tansa-Bassein and Tansa-Kalyan Creeks and further upto the Ulhas and Bhatsa rivers. They are in all 23 sub-ports from which sea-borne trade is carried.

Trade and Industries :

The principal trade centres in the Taluka are Bhiwandi, Naizampur, Padgha, Borivali, Nandkhar, Bapgaon, Kon and Vehale. The leading merchants at these centres deal directly with Bombay, Gujarat and the Deccan, exporting husked-rice, timber, fire-wood, bricks, *Lugadas* and *Cholkhans* and importing silk, yarn, cloth, groceries, tobacco, salt, kerosene oil, country liquor, dry cattle especially buffaloes, and articles of hard-ware. Sheep and goats are brought down from the Ghats for sale. Fowl are reared in many villages and exported to Bombay. A little rice-straw is exported to the Bassein Taluka from the western villages. Timber and fire-wood are shipped to Bombay from Bhiwandi and Junandruki bunders, and also exported from Vashind Railway Station. Bricks are

manufactured on an extensive scale at Kon, Pimplas, Vehele, Anjur and Bhiwandi and exported to Bombay in boats.

There are 53 rice mills, 13 flour mills and two oil mills, in the Taluka ; out of which 21 rice mills, 11 flour mills and one oil mill are working in the Bhiwandi Municipal limits.

The export of rice from this Taluka is on an average of Rs. 2,303,746 during the period of last three years. It is exported to Bombay, Kathiawar and to other places. The *Jada* kind of rice has no local or out-side demand, as the *Rangoon* kind can be had, at cheaper rates, so the cultivators generally keep it for home consumption.

There are eight cloth mills working on electric power and many groups of a few looms each are also working in the same way. The labourers engaged in these mills are chiefly Momins who are the residents of Northern India. There are about 1,000 handlooms in the Taluka. The total export of the cloth produce is of Rs. 1,610,700 (1937-38).

The Ganesh Iron Works at Bhiwandi manufactures rice mills and produces all accessories required by the mills.

The motor buses plying for hire on a large scale have practically closed down the tonga and cart-making business at Padgha for which it was very famous, both in the north Konkan and in the Ghats, in the old days of the Maratha power.

The oil-pressing business worked by bullock-power is practically extinguished, as the mill-oil is imported from Kalyan and Bhiwandi by the feriwallas. In the year 1925, 67 such oil-presses were working but today they are considerably reduced and even the few that are working, do not work throughout the seasons.

The Brick-industry is carried on in a few villages, on the creek side, on an extensive scale, especially at Kon, Pimplas, Vehele, Anjur, and Bhiwandi and the bricks manufactured are supplied to Bombay, Poona and other centres. The export of bricks is to the extent of Rs. 2,50,000 per year. All

the brick factories in the Taluka together engage about 110 labourers for nearly 8 months.

Some forest contractors in the Taluka manufacture charcoal and it is exported to Kalyan, Thana and Bombay. The total export of timber was of Rs. 19,682 (1937-38) and that of fuel was to the extent of Rs. 3,276 (1937-38).

There are four oil-engines for irrigating gardens. There are about 15 mango gardens in the Taluka, covering an area of 12 acres.

The following table shows some of the articles exported from the Taluka :—

TABLE No. 6

(showing exports from the Taluka)

	1935-36		1936-37		1937-38	
	Weight	Value Rs.	Weight	Value Rs.	Weight	Value Rs.
Rice ...	639979 mds.	2590555	109013 mds.	2019154	550285 mds.	2301540
Paddy ...	15441 ,,	52035	665 ,,	20274	9360 ,,	17161
Cloth ...		278356		1134750		1610700
Timber ...		104340	392 tons	18062	443 tons	19682
Fuel ...			662 ,,	6902	305 ,,	3276

Markets and Fairs :

The town of Bhiwandi is the largest market, not only for the villages of the taluka, but also for the adjoining Vada Taluka. There are no periodical markets, except only a small one at Padgha. Rice is also sent to Bombay from Khadavali and Vasind railway stations from the adjoining villages. The following table shows the important annual fairs held in the Taluka :—

TABLE No. 7[1]

(showing annual fairs in the Bhiwandi Taluka)

Serial No.	Place of fair	In whose honour fair is held	Days on which fair is held	Duration of fair	No. of visitors	Amount of sales
						Rs.
1	Vajreshwari	Vajrabai	Chaitra Vadya 30	8 days	8,000	15,000
2	Padgha	Urus	Magh Vadya 4	3 ,,	1,000	700
3	Lonad	Khandeshwar	Magh ,, 14	1 ,,	700	600
4	Kavad (kd)	Sakharam Maharaj (Saint)	Margashirsh Sudh 15	4 ,,	1,500	800
5	Goripada	Urus	Chaitra ,, 15	5 ,,	10,000	15,000
6	Anjur Pada	Village Goddess	Vaishakh 15	2 ,,	300	100
7	Anjur	Ram	Chaitra Sudh 9	5 ,,	1,500	500
8	Diva	Village Goddess	Vaishakh 15	2 ,,	1,000	500
9	Nandkar	Urus	Vaishakh Vadya 8	2 ,,	1,500	700
10	Nizampur	Urus	Jaishta Sudh 11	2 ,,	1,000	700
11	Nizampur	Urus	Falgun Vadya 3	2 ,,	800	500
12	Kharbao	Kalikadevi	Vaishakh Sudh 15	3 ,,	1,200	1,500
13	Kalher	Vetal	Vaishakh Sudh 12	2 ,,	600	1,200

Wages and Labour :

The rates paid for labour in the Taluka are on an average one Rupee for skilled labour, four annas for field labour and six annas for ordinary labour. On the Tansa works, the rates are a little higher. The wild tribes such as Varlis, Katkaris and Thakurs are paid in grain, 2 to $2\frac{1}{2}$ *pailis* of rice per day. Generally labourers from the ghats are imported for the field-work. They stay here for about three months, till the crops are harvested. Usually these labourers are given food together with four to six annas per day. Besides, many labourers are imported for brick manufacture in the villages situated by the side of the creek, where there are brick factories. These labourers are specially brought from Gujarat as they are hardworking and regular. The work begins by October and comes to an end by the advent of the monsoons.

[1] *Second Revision Survey Settlement Report*, Bhiwandi Taluka, p. 4.

Education :

There are in all 71 primary schools in the Taluka, out of which 16 schools are in the Bhiwandi Municipal area and the remaining 55 schools are in the villages. The total number of pupils under instruction by the end of March 1940 was 4,778, out of which 3,571 were boys and 1,207 girls. Out of these pupils 544 were Muslim boys, 172 were Harijan pupils and 123 pupils came from the hill tribes. Out of the 55 village schools, 10 schools have classes in the adjoining villages. Thus the total number of villages having schools is in all 65. These 65 schools are distributed in the following way : 15 schools are in the villages having population below 400 ; 20 schools are in the villages having population 400–500 ; 21 schools are in the villages having population 500–1,000 and 9 schools are in the villages having population over 1,000. But there are 149 villages having population below 400 i.e. in 134 villages there are no schools. There are 21 villages having a population of 400-500 i.e. in one village there is no school. There are 24 villages having a population of 500-1,000 i.e. in 3 villages there are no schools. In the remaining 9 villages having a population of over 1,000, there are no schools.

Besides these primary schools, there are two High Schools in the Bhiwandi-Nizampur Municipal area, one conducted by the Konkan Muslim Education Society and the other by the General Education Society, Dadar. In the former school, there were 115 boys by the end of March 1940 and in the latter, 152 students, out of which 24 were girls.

Villages and Their Population :

There are in all 205 villages in the Taluka. At the time of the Original Survey Settlement also, there were 205 villages. In the year 1862, 17 villages were added, under the Government Resolution No. 1840, from the Bassein Taluka. Again in the year 1866, 8 villages were transferred to the Vada Taluka and 13 villages to the Shahapur Taluka, thus leaving 201 villages in the Taluka. Later on, Khaling Budruk village was broken up and a hamlet originally belonging to it, by name Dalepada, was made into a separate village in the year

1891, thus bringing the number to 202. Later in the year 1911, the three villages Paye, Paigaon and Kharbao, which were formerly included in the Bassein Taluka, have been transferred to the Bhiwandi Taluka, for the purpose of convenience of administration. Out of these 205 villages, 194 are Government villages, two *Isfat* villages, four *Sharkati* villages and five *Inam* villages.

The total population of the Taluka, according to the Census of 1931 was 82,942, out of which 70,977 were Hindus, 11,737 Muslims, 133 Jains, 11 Parsis and the remaining 84 Christians. The following table shows the distribution of the villages according to the population :—

TABLE No. 8

(showing distribution of villages according to the population)

Population	No. of villages	Population	No. of villages	Total No. of villages
Deserted ...	4	501–600	10	
Below 50 ...	13	601–700	8	
51–100 ...	17	701–800	3	
101–200 ...	45	801–900	2	
201–300 ...	49	901–1000	1	
301–400 ..	21	over1000	9	
401–500 ...	21			
	170		33	170+33=203

From the above table the Bhiwandi town and the Nizampur town which constitute the Bhiwandi Nizampur Municipal area were omitted. The population of the Bhiwandi Nizampur Municipal area was 15,619.

Such is the geographical, physical and general survey of the Taluka ; and we have studied the social and economic life of 760 families of farmers from it.

CHAPTER II

THE PROBLEMS OF VITAL STATISTICS

"It is almost a truism that the progress of Science is marked by the extent to which exact quantitative data replace qualitative impressions; and in the broad field of Public health, as distinct from its numerous contributory sciences, methods and results can be gauged only by the intelligent use of Vital Statistics." [1] Vital Statistics which form a part of demography, deals with the problems of the fundamental events of human life, such as birth, sickness, death, etc. Thus, it can be realised that Vital Statistics is the logic of the statistical methods applied to the fundamental events of human life and it is the only way of measuring the condition of the people.

Out of the forty-five villages in the Bhiwandi Taluka, where I carried on this regional survey, 32 villages are selected here, for a close study of Vital problems. The figures of births and deaths are taken from the village records, for three years i.e. 1933, 1934 and 1935. It was necessary to choose more than one year in order to avoid any abnormal condition that might exist in any particular year and it is hoped that a study of three consecutive years will fairly give an average view of the demographic conditions of the Taluka.

Before we examine the data regarding Vital Statistics, it must be remembered that "that the Vital and other allied Statistics of India are inaccurate", has been widely acknowledged. The eminent authors, Messrs. Bowley and Robertson, of the scheme of the Economic Census of India, quote with approval the statement of the Census Commissioner of India, that Vital Statistics in India are well-known to be defective. According to the Census Report of 1931, the defect in Vital Statistics has been estimated at about 20%, though it is much higher, at its maximum.[2] The agency for reporting Vital occurrences in most areas is the village Police Patil, who gets on

[1] Dr. I. S. Falk,—*The Principles of Vital Statistics*, p. 7.
[2] *The Census of India*, 1931, Vol. I, Part I, Para 77, p. 91.

an average Rs. 4 per month as his salary and has to perform a multitude of duties for the Government. That the agency is unreliable is no wonder, for the Police Patil is not only ill-paid and generally illiterate, but has to attend to a large number of duties, including the personal needs of the Officers on tour.

From appendix No. 1 we can find that the population of these 32 villages together was 9,766 in the year 1931. The following table gives the details regarding the movement of population, during the last four decades, in these villages in comparison with the Taluka, Bombay Presidency and India :-

TABLE No. 1

(showing population movements)

—	India	Bombay Presy. British Dists.	Bhiwandi Taluka	Villages under survey
1901	29,43,61,056	1,85,30,315	76,679	10,230
1911	31,51,56,396	1,96,50,101	97,926	10,341
1921	31,89,42,480	1,92,91,719	72,267	8,883
1931	35,28,37,778	2,18,03,388	82,942	9,766

Now if we take the population of 1901, as the basis, we can find the relative changes in the movement of population in India, in Bombay Presidency, in the Bhiwandi Taluka and in the villages under survey.

TABLE No. 2

(showing proportional movement of population)

—	India	Bombay Presy. British Dists.	Bhiwandi Taluka	Village under survey
1901	100	100	100	100
1911	107	106	121	101
1921	108	104	94	87
1931	119	117	108	96

Thus, we find that the total population of India and of the Bombay Presidency has increased successively during the last four decades, except in the third decade in the Bombay Presidency. It can be also seen that in the all-India figure the increase during this period is very slight. This is largely attributed to the influenza epidemic of 1918. But the effect of this epidemic seems to have been terrible in the Bhiwandi Taluka, especially in the rural areas. Thus we find that in the Bhiwandi Taluka there is a big drop in the total population from the second decade to the third decade and even after the period of two decades, the population has not reached the figure for the year 1911. Again these figures include the urban and rural population of the Taluka. But the rural population of the Taluka has greatly suffered owing to this epidemic, as can be seen from our survey, which was carried out only in the rural parts of the Taluka, which shows that the population, recorded in the year 1931, was still less than what it was in the year 1901.

The subject of population pressure has now come to the forefront in India as it threatens to pass the limit of four hundred millions by the next census year.[1] The Census Commissioner in the All-India Census Report, 1931, has given a note of warning that "increase of population is from most points of view, a cause of alarm, rather than of satisfaction.[2] But from the above table it can be seen that in our Taluka, the problem of over-population does not exist at all, on the contrary, in some parts of the Taluka, it is the other way about and agriculture is suffering on account of the insufficient number of cultivators.

The most popular and frequently mentioned concepts in studying the population problems are the birth-rates and death-rates. The following table gives the total births and deaths, in the villages under survey, during the years 1933, 1934 and 1935 :—

[1] Radhakamal Mukerjee—*Food Planning for four hundred Millions*, Preface, p. 1.

[2] *Census of India*, 1931, Vol. I, Part I, Para 34, p. 29.

TABLE No. 3

(showing total number of births and deaths)

Year	Births			Deaths		
	M.	F.	T.	M.	F.	T.
1933	243	236	479	163	130	293
1934	174	188	362	119	121	240
1935	205	188	393	151	118	269
Average	207	204	411	144	123	267

N.B. M = Male ; F = Female ; T = Total.

The crude birth-rate is obtained by the total number of births per thousand population in a given time, preferably a year, divided by the mean population.[1] Here in our sample the total births in the year 1933, 1934 and 1935 are respectively 479, 362 and 393. The total population of the villages, as can be seen from table No. 1, is 9,766 out of which 4,861 are males and 4,905 females. The following table gives the crude birth-rates of the total population and also of the males and females :—

TABLE No. 4

(showing crude birth-rates)

—	1933	1934	1935	Aver-age
Crude birth-rate—Total population ...	49	37	40	42
,, ,, Males ...	49	36	42	42
,, ,, Females ...	49	38	38	42

The birth-rate in India in the year 1931-35 was 35[2] ; and in the Bombay Presidency, during the period 1921-31, it was 35.9. The crude birth-rate for males in the year 1930, in the British Districts of the Bombay Presidency was 37 and for fe-

[1] It was not possible to find out mean population, for our survey, so the population of 1931 is utilised for these three years, i.e., 1933, 1934 and 1935.

[2] Gyan Chand—*India's Teeming Millions*, p. 99.

males it was 38.[1] The birth-rates, recorded in the Bombay Presidency in the years 1936 and 1937 are respectively 41.40 and 40.68.[2] In our sample the average birth-rate during the three years, viz. 1933, 1934 and 1935 is 42 ; for the males it is 42.3 and for the females it is 41.7. Thus, it can be seen that the average birth-rate, recorded in the villages under survey, appears to be little high. The birth-rates in the year 1933 are proportionately very high, while in the year 1934, they are proportionately very low. It is very difficult to find out the exact reasons for this state of affairs.

These ratios are obviously very crude measures of the productive capacity of the population. There are various other factors which we have to take into consideration. Firstly, the whole population is not exposed to the risk of having a baby. Only females who are within the reproductive period, that is between the age group of 15-49, are liable to this occurrence. Again civil condition is also an important aspect, as only married women during this age group are liable to give births. Moreover, fertility or trend of growth of population depends much upon the age and sex composition. The specific age-composition of women within the reproductive period will affect the number of children born. For, even within the reproductive period, women do not bear children equally at all ages. Two populations of women in the reproductive ages, having the same general fertility-rate, but having different age compositions within it, will contribute differently to future population. It is only the specific birth-rate, that will give us a correct idea, about the trend of the growth of the population, which we will discuss in the next chapter. It will suffice for us to note here that the birth-rate in our sample is rather high. The crude birth-rate in England, during the period 1931-35 was 15.5, in Germany it was 15.9, in France it was 16.5 and in Poland it was 27.6.[3]

The crude death-rate is obtained by the total number of deaths per thousand, regardless of age, sex, race or occupation, occurring within a year, from any cause whatever, divided by

[1] *Bombay Presidency Census Report*, 1931, p. 91.
[2] *Public Health Report for the Government of Bombay*, 1937, p. 4.
[3] Gyan Chand—*India's Teeming Millions*, p. 100.

the mean population, constituted in respect of its age, sex and racial and occupational distribution. The crude death-rate, in other words, is an absolutely accurate and precise measure of something which, because of its hetrogeneous, composite, unanalysed character, is not particularly worthwhile measuring accurately. So many variables influence the stated values of crude death-rates that they make them rather untrustworthy for any but the broadest and roughest conclusions. It is also unreliable as an index of the relative mortality, in different places, unless it is preliminarily investigated, whether the age and the sex composition of these two populations are identical. The following table gives the crude death-rates of the total populations and also of the males and females :—

TABLE No. 5
(*showing crude death-rates*)

—	1933	1934	1935	Average
Crude death-rate—Total population	30	25	28	27.7
,, ,, for Males ...	33	24	31	29.3
,, ,, ,, Females ...	27	25	24	25.3

The crude death-rate in India during the period 1931-35 was 24, while in the Bombay Presidency, it was 26.8 during the period 1921-31.[1] The death-rates recorded in the Bombay Presidency in the years 1936 and 1937, according to the Public Health Reports were respectively 27.73 and 27.50.[2] The average death-rate in our sample during the three years, viz. 1933, 1934 and 1935, as can be seen from table No. 5 is 27.7 for the whole population, 29.3 for the males and 25.3 for the females. Thus the death-rate in our sample appears to be little higher than that in the Bombay Presidency or in India.

The death-rates in some of the European Countries are as follows. In England during the period 1931-35 it was 12.2 ; in Germany, during the same period, it was 11.0 ; in France it was 15.7 and in Poland, it was 14.6.[3]

[1] Gyan Chand—*India's Teeming Millions*, p. 99.
[2] *Public Health Report for the Government of Bombay*, 1937, p. 4.
[3] Gyan Chand—*India's Teeming Millions*, p. 100.

Another important feature that we see is that the death-rate for males in our sample is higher than the death-rate for the females. The total female population is higher than the male population as can be seen from appendix No. 1, though as can be seen from table No. 6, on an average, more male children are born than female ones. The following table gives the details :—

TABLE No. 6

(*showing the proportion of males and females*)

	1933	1934	1935	Average
Male births	243	174	205	207
Male deaths	163	119	151	144
Difference (Males)	80	55	54	63
+				
Female births	236	188	188	204
Female deaths	130	121	118	123
Difference (Females)	106	67	70	81
+				
Net balance in favour of females ...	26	12	16	18

Thus, we find that there is a preponderance of births of male children over the female children, but the number of deaths of the male children is also a little higher than that of the female children. Thereby we find that during the three years, i.e., 1933, 1934 and 1935, the net balance in favour of females is respectively 26, 12 and 16 ; that is why we find the female population higher than the males. This leads to the conclusion that the males suffer more and succumb more than the females during the infant stage.

From tables Nos. 4 and 5, it can be noted that on an average, during the years 1933, 1934 and 1935, both for males and for females the rise in the birth-rate has been accompanied by a rise in the death-rate. This may perhaps be due to the fact that the greater the number of births, the greater the possibility of infant deaths.

We have seen from table No. 3 that the total deaths during the years 1933, 1934 and 1935 are respectively 293, 240 and 269. Let us see their distribution according to different age-groups and sex. The following table gives the details :—

TABLE No. 7

(showing total deaths according to age-groups)

Age groups	1933			1934			1935		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
0—1 ...	43	36	79	27	42	69	33	27	60
1—3 ...	17	16	33	11	14	25	6	22	28
3—5 ...	1	7	8	6	10	16	12	3	15
5–14 ...	10	7	17	6	8	14	11	8	19
15 and above ...	92	64	156	69	47	116	89	58	147
Total ...	163	130	293	119	121	240	151	118	269

N.B. M = Males ; F = Females ; T = Total.

In the above table the first striking point that occurs to our mind is that infant mortality is very high, more than 25 per cent of the total deaths. The child-mortality during the age-group 1-3 is also comparatively high and if we take into consideration the child-mortality of the age-group 0-5, it forms nearly 40 per cent of the total deaths. Let us consider all these aspects severally.

Infant Mortality :

Infant mortality is a serious problem, which requires careful study. The greatest care should be given to infant mortality as in the words of Sir A. Newsholme " It is the most sensitive index of social welfare and of sanitary improvements which we possess ".[1] It must be remembered that maternity and child-welfare should hold a prominent place in public interest. There is real need that unnecessary sufferings and ill-

[1] Dr. I. S. Falk—*The Principles of Vital Statistics*, p. 72. Newsholme, Loc. cit.

ness of both mothers and children should be avoided and that the toll of deaths should be reduced, as far as humanly possible.

In Vital Statistics the term "infant" is applied to a child from the day of its birth up to the end of its first year in life. The still-births are excluded ; but if a child is born alive and dies almost immediately, it is to be regarded as an infant and both its birth and death are to be registered statistically. Generally in studies in mortality, it is customary to use death-rates that is the rates between the deaths and population, which are expressed as so many deaths per 1,000 persons. For the purpose of finding specific death-rates, we find the ratio of deaths, in the specific age-group to the persons of the same age-group. But it is difficult to get accurately a count of the population, under one year of age, annually, as the results are well-known to contain large errors. Therefore, the infant mortality rate is generally found out, by the number of infant deaths, in a calendar year divided by the number of births, during that year and not by the simple age specific death-rate under one. The following table gives the infant mortality rate in the villages under survey, during the years 1933, 1934 and 1935 :—

TABLE No. 8
(*showing infant mortality rate*)

Year	Total number of births	Total number of infant deaths	Infant mortality rate
1933	479	79	173
1934	362	69	188
1935	393	60	150
Average	411	69	170

Thus, we find the average infant mortality rate in our villages to be 170. In the Bombay Presidency in the year 1936, the rate was 166.08.[1] During the decade 1921-31, the rate for

[1] *Public Health Report of the Bombay Presidency*, 1936-37, p. 10.

all-India was 181 and for the Bombay Presidency, it was 185. Thus we find that the infant mortality rate is comparatively high in our sample. Generally in India it is notoriously high as compared with most countries in the West of Europe. For Germany it is 76 and for France it is 73.[1] In England the infant mortality rate has been reduced during the last forty years from 156 to 59, as in the words of the then Prime Minister, Sir Neville Chamberlain, on 12th November 1937, at Edinburgh, that " Sometimes we take infant mortality rates as a sort of general pointer to show how health is improving. If you do that, the story is very wonderful, because in the last forty years, that is not much more than half of my life-time, the infant mortality rate has come down from 156 to 59 per 1,000."[2] Thus we find that the wastage of human life in India and especially in the Taluka under survey is " terrible."

A year is a long period in the life of an infant. One can learn nothing from a study of infant mortality when all ages upto 1 year are considered together. It is, therefore, necessary to study the infant death-rate by months, weeks, or even by days.

The need of such a study is obvious. During early life, many of the deaths are from troubles incidental to birth. Later the question of feeding, infectious diseases, debility, etc., becomes important. Now let us consider some of these sub-divisions. It is not customary to keep regular grouping of equal divisions of period. An irregular grouping is more common because of the greater importance of the sub-divisions, at the very early ages. The following table gives the details :—

[1] Gyan Chand—*India's Teeming Millions*, p. 105.
[2] R M. Titmuss—*Poverty and Population*, p. 77.

TABLE No. 9

(showing infant deaths during different age-groups)

Period	1933			1934			1935			Total		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0- 1 day ..	7	8	15	...	4	4	2	1	3	9	13	22
1- 2 days ...	1	2	3	1	...	1	2	...	2	4	2	6
2- 3 days ...	...	...	...	1	1	2	1	2	3	2	3	5
3- 7 days ...	4	2	6	1	...	1	4	3	7	9	5	14
1- 2 weeks ...	2	3	5	2	3	5	2	2	4	6	8	14
2- 3 weeks ..	1	...	1	2	6	8	2	...	2	5	6	11
3- 4 weeks ..	5	4	9	1	4	5	2	4	6	8	12	20
1- 2 months ..	2	1	3	4	4	8	5	1	6	11	6	17
2- 3 months ..	1	3	4	3	...	3	3	2	5	7	5	12
3- 6 months ...	8	4	12	1	5	6	4	5	9	13	14	27
6- 9 months ..	3	...	3	3	6	9	1	...	1	7	6	13
9-12 months ...	9	9	18	8	9	17	5	7	12	22	25	47
0- 1 year ..	43	36	79	27	42	69	33	27	60	103	105	208

N.B. M = Males; F = Females; T = Total.

The first thing that we must remember is that our system of maintaining the births and deaths register is very faulty and there is no accuracy of ages of the children, because these registers are maintained by the village Patils, who are illiterate. The apparent increase from the 9th month of age to the 12th month of age is very likely due to the inaccuracies, in stating the age at one year—the error of round number.

The above table can be analysed as follows :—

(*For Table see page* 31)

In table No. 10 the results are expressed cumulatively, i.e., the deaths that have occurred on the first day are included in the first two days and the deaths that have occurred in the first two days are included in the first three days and so on. It can be noticed that the death-rate of infants is much higher during the first two weeks and days of life, than it is after six months. The greatest mortality of infants occurs on the first day of life, than on any other day ; taken by weeks, it is highest in the first week and taken by months, it is highest in the first month of life. It can be seen from the table that one half to two-thirds of all the infant deaths have occurred,

TABLE No. 10

(showing percentage of infants dying at less than stated period)

	1933			1934			1935			Total		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1 day ...	16.3	22.2	18.9	—	9.5	5.8	6.1	3.7	5.0	8.7	12.4	10.7
2 days ...	18.7	27.8	22.7	3.7	9.5	7.3	12.2	3.7	8.4	12.6	14.3	13.6
3 days ...	18.7	27.8	22.7	7.4	11.9	10.3	15.2	11.1	13.4	14.5	17.1	16.0
1 week ...	28.1	33.4	30.3	11.1	11.9	11.8	27.3	22.3	25.0	23.2	21.8	22.8
2 weeks ...	32.7	41.7	36.6	18.5	19.0	19.0	33.4	29.7	31.6	29.0	29.4	29.6
3 weeks ...	35.0	41.7	37.9	25.9	33.3	30.5	39.5	29.7	35.0	33.9	35.2	35.0
1 month ...	46.6	52.8	49.2	29.6	42.8	37.7	45.6	44.5	45.0	41.7	46.6	44.6
2 months ...	51.2	55.6	53.0	44.4	52.3	49.2	60.7	48.2	55.0	52.4	52.4	52.8
3 months ...	53.6	63.9	58.1	55.5	52.3	53.7	69.8	55.6	63.3	59.2	57.1	58.6
6 months ...	72.3	75.0	73.4	59.2	64.7	62.4	81.9	74.1	78.3	71.8	70.4	71.5
9 months ...	79.2	75.0	77.2	70.3	78.5	75.4	84.9	74.1	80.0	78.6	76.2	77.8
1 year ...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

N.B. M = Males; F = Females; T = Total.

in the first quarter of the first year of life. The apparent increase in the last quarter of a year as is stated above is probably due to the inaccuracies in stating the age at one year, as round number.

The next important topic is the causes of infant mortality. Unfortunately, the causes that are reported by the village Police Patils are not at all reliable. The appendix No. 6 shows the main causes of infant mortality, according to the reports of the Police Patils. From that it can be roughly said that the main causes of infant mortality are debility i.e. general weakness, fevers, respiratory and circulatory diseases, (i.e. diseases affecting the lungs, the heart and the breathing system) and worms.

From appendix No. 6, it can be also noted that the infant mortality is rather high in cases of debility, fevers, respiratory and circulatory diseases, worms, digestive disorder and premature births. Debility kills many infants before they are six months old. The percentage of deaths, on an average, on account of debility is very high. Even granting that many of these deaths may not be properly classified and that many may be the result of injudicious feeding and other disorders, depending on insanitary conditions, the conclusion deducible is that such causes as poverty, want of sanitation and above all ignorance, are responsible in no small degree, for such a state of affairs.

The seasonal variations in the severity of infant mortality go hand in hand with the reactions between the seasons and some of the above-mentioned principal groups of causes of infant deaths. Debility, injuries at birth, premature birth, etc. are intimately concerned with the infant's hereditary conditions and with the pre-natal and natal conditions of the mother, and they take the toll of infant lives regardless of the season, while the other diseases, such as fevers, digestive disorder, worms, etc. are due to seasonal effects. These seasonal correlations are indicated in the infant mortality rates for all causes of death, when subdivided for each month of the year. The following table gives the details :—

TABLE No. 11

(Showing deaths according to months)

Months	1933			1934			1935			Total		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
January ...	4	2	6	4	4	8	2	6	8	10	12	22
February ...	2	1	3	1	6	7	1	...	1	4	7	11
March ...	5	1	6	1	1	2	5	2	7	11	4	15
April ...	3	...	3	2	8	10	3	1	4	8	9	17
May ...	2	6	8	3	1	4	5	2	7	10	9	19
June ...	4	2	6	5	...	5	3	1	4	12	3	15
July ...	4	5	9	...	1	1	3	4	7	7	10	17
August ...	5	3	8	3	4	7	4	1	5	12	8	20
September ...	4	7	11	2	3	5	3	3	6	9	13	22
October ...	3	4	7	3	5	8	2	4	6	8	13	21
November ...	5	2	7	3	5	8	1	1	2	9	8	17
December ...	2	3	5	...	4	4	1	2	3	3	9	12
Total ...	43	36	79	27	42	69	33	27	60	103	105	208

N.B. M = Males; F = Females; T = Total.

From the above table it can be roughly noted that the infant mortality is comparatively high, in the months of January and September. In January it may be due to the severe cold and in September it may be due to the heat just after the rainy season, as during this month, the climate is always malarious in the rural parts of the Taluka.

Child Mortality :

The period of life between the age of one and five years represents a peculiar environment which may be described by the words " home and play." During this period the psychological influence of the mother on the child becomes less, but the social and economic conditions of the family and the general environment of the house and the neighbourhood have a greater direct influence. During these four years the percentage of deaths of children decreases. The following table gives the details :—

TABLE No. 12

(Showing percentage of deaths in the different age-groups)

Age-Groups	1933			1934			1935		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
0-1 ...	26.4	27.7	26.8	22.7	34.7	28.9	21.8	22.8	22.3
1-4 ...	11.0	17.7	14.0	13 7	19.9	17.0	11.6	21.2	15.9
5-14 ...	6.2	5.4	5 9	5.5	6.6	5.8	6.9	6.9	7.2
15 & above ...	56.4	49.2	53.3	58.1	38.8	48.3	59.7	49.1	54.6
Total ...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

N.B. M = Males; F = Females; T = Total.

The above table shows the percentage of deaths during the different age-groups. It can be seen that during the age-group 1-4, the percentage of death has decreased. The percentage of deaths, during the years under survey is respectively, 14.0, 17.0 and 15.9. It is different according to sex. For example, it is respectively 11.0, 13.7 and 11.6 for males and 17.7, 19.9 and 21.2 for females. Thus, it is obvious that the females show a higher percentage of deaths than the males.

Thus, the high death-rate of infants and children, in our sample, may be partly due to high birth-rate. A high death-rate is usually associated with poverty, ignorance, bad housing, early marriages and lack of adequate care of children. According to Sir Newswholme " not only poverty and high death-rate always closely related, but a high death-rate implies a high rate of sickness and of inefficiency among those who survive."[1] " Infant mortality rate is more intimately connected with the illiteracy and poverty of females. It may be said with precision that more than one-fifth of the high mortality rate, under the age of 5 years, is due to the shorter interval between births that necessarily accompanies a large family and four-fifths are due to other causes probably in large part

[1] R. M. Titmuss—*Poverty and Population*, p. 120, Newsholme, Loc. cit.

of an economic or professional character that already exist at the commencement of the marriage." [1]

Thus, in conclusion, it can be said that in our sample the birth-rate and death-rate are comparatively high and so also, the infant mortality and the child mortality are comparatively high. All these four aspects are associated with poverty, ignorance and early marriages which we will discuss later on.

[1] Prof. Gini—*Presidential Address of the International Population Conference held at Rome,* 1931.

APPENDIX No. 1

(showing movement of population during the last four decades in the villages under survey)

Nos.	Villages	1901	1911	1921	1931
1	Ambadi ...	461	549	463	668
2	Asnoli ...	225	215	117	259
3	Avalote ...	225	293	188	216
4	Bhinar ...	318	279	326	380
5	Bhokari ...	370	405	423	471
6	Chinchavali (Sonala) ...	138	170	113	157
7	Chinchavali ...	19	39	30	22
8	Dalonde ...	222	228	173	187
9	Dugad ...	737	755	796	687
10	Dohale ...	386	312	295	277
11	Ganeshpuri ...	275	334	282	290
12	Ghotgeon ...	374	305	367	481
13	Jambhivali ...	219	227	166	208
14	Karajoti ...	313	325	250	295
15	Khaling (Kd) ...	292	270	133	122
16	Khativali ...	75	77	67	84
17	Khanivali ...	401	404	262	206
18	Koshimbe ...	226	271	269	303
19	Kurund ...	604	553	470	518
20	Kunde ...	465	584	488	572
21	Lap (Kd) ...	442	273	220	292
22	Lap (Bk) ..	483	402	340	254
23	Malbidi ...	284	263	289	280
24	Manivali ...	132	122	118	132
25	Mohili ...	383	635	212	246
26	Pahare ...	337	340	368	398
27	Shedgeon ...	294	299	222	244
28	Talavali ...	245	322	199	168
29	Vadavali ...	394	414	331	368
30	Vareth ...	186	185	201	227
31	Vedhe ...	362	395	327	344
32	Zidke ...	353	296	297	410
	Total ...	10,230	10,341	8,883	9,766

APPENDIX No. 2

(1933)

(showing causes of infant mortality according to months)

Months	Infectious diseases			Debility diseases			Nervous diseases			Res. & Cir. diseases			Digestive disorder			Premature Births			Fever			Worms			All diseases		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
January	...	...	...	...	2	2	...	...	...	2	...	2	...	...	...	...	...	...	2	...	2	...	...	...	4	2	6
February	...	...	...	2	...	2	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3
March	...	...	...	2	1	3	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1	1	...	1	5	1	6
April	...	...	...	1	...	1	...	...	...	1	...	1	...	...	...	...	...	...	1	...	1	...	...	...	3	...	3
May	...	...	...	2	3	5	...	...	...	...	2	2	...	...	...	...	...	...	...	1	1	...	...	...	2	6	8
June	...	...	...	2	1	3	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	1	1	2	4	2	6
July	...	...	...	2	3	5	...	...	...	...	1	1	1	...	1	...	1	1	1	...	1	...	...	...	4	5	9
August	...	...	...	2	...	2	...	...	...	1	...	1	...	2	2	...	1	1	2	...	2	...	...	...	5	3	8
September	...	...	...	1	3	4	...	...	...	...	...	...	1	...	1	...	1	1	...	...	...	2	3	5	4	7	11
October	...	...	...	1	2	3	...	...	...	1	...	1	...	...	...	1	1	2	...	1	1	...	...	...	3	4	7
November	...	...	...	3	1	4	...	...	...	1	...	1	...	...	...	1	...	1	...	1	1	...	...	...	5	2	7
December	...	...	...	1	1	2	...	1	1	...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	2	3	5
Total	...	...	...	19	17	36	...	1	1	6	4	10	3	2	5	3	4	7	7	4	11	5	4	9	43	36	79

N.B. M = Males; F = Females; T = Total.

APPENDIX No. 3

(1934)

(Showing causes of infant mortality according to months)

Months	Infectious diseases			Debility			Nervous disease			Res. & Cir. diseases			Digestive disorder			Premature births			Fever			Worms			All diseases		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
January ...	...	...	...	3	...	3	...	...	...	...	1	1	...	...	...	1	1	2	...	2	2	...	...	...	4	4	8
February ...	...	1	1	1	3	4	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	1	1	6	7
March ...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	1	...	...	...	...	...	...	...	...	...	1	1	2
April ...	...	...	...	1	...	1	...	...	...	...	1	1	...	3	3	...	...	...	1	3	4	...	1	1	2	8	10
May ...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	3	1	4
June ...	...	...	...	1	...	1	...	...	...	2	...	2	...	...	...	...	...	...	2	...	2	...	...	...	5	...	5
July ...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
August ...	...	...	...	2	2	4	...	1	1	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	3	4	7
September ...	...	...	...	1	2	3	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	2	3	5
October ...	...	...	...	1	3	4	...	...	...	2	1	3	...	...	...	...	...	...	...	...	...	...	1	1	3	5	8
November ...	...	...	...	1	2	3	1	...	1	...	...	...	...	1	1	...	...	...	1	1	2	...	1	1	3	5	8
December ...	...	...	...	...	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4
	...	1	1	13	17	30	1	1	2	6	4	10	...	5	5	1	1	2	6	9	15	...	4	4	27	42	69

N.B.—M. = Males; F. = Females; T. = Total.

APPENDIX No. 4

(1935)

(showing causes of infant mortality according to months)

Months	Infectious diseases			Debility			Nervous diseases			Res. & Cir. diseases			Digestive disorder			Premature births			Fever			Worms			All diseases		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
January	...	1	1	1	2	3	...	...	...	...	...	...	...	...	...	1	1	2	...	2	2	...	...	...	2	6	8
February	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
March	...	...	...	3	2	5	...	...	...	...	...	...	1	...	1	...	...	...	1	...	1	...	...	...	5	2	7
April	...	...	...	...	1	1	...	...	...	1	...	1	...	...	...	2	...	2	...	...	...	...	...	...	3	...	4
May	...	...	...	3	...	3	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	2	1	3	5	2	7
June	...	...	...	3	...	3	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	3	1	4
July	...	...	...	1	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2	...	2	3	4	7
August	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	1	...	1	4	1	5
September	...	...	...	2	2	4	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	3	3	6
October	...	...	...	1	2	3	...	1	1	...	...	...	...	1	1	...	...	...	1	...	1	...	...	...	2	4	6
November	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	2
December	...	...	...	1	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
Total ...	1	1	2	18	13	31	...	1	1	1	...	1	2	4	6	4	2	6	2	4	6	5	2	7	33	27	60

N.B. M = Males; F = Females; T = Total.

APPENDIX No. 5

(Showing causes of child mortality)

Kinds of diseases	1933									1934									1935								
	1-3 years			3-5 years			5-14 years			1-3 years			3-5 years			5-14 years			1-3 years			3-5 years			5-14 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Debility ...	2	...	2	...	1	1	2	...	2	1	...	1	...	...	...	...	2	2	...	...	...	1	...	1	1	1	2
Infectious Diseases ...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
Nervous Diseases ...	...	1	1	...	...	...	...	...	...	...	1	1	...	2	2	...	...	...	...	...	...	1	...	1	...	...	...
Resp. and Cir. Diseases ...	4	5	9	...	3	3	4	2	6	6	3	9	1	3	4	2	2	4	1	6	7	3	...	3	4	1	5
Digestive Disorder ...	2	4	6	1	2	3	2	1	3	...	5	5	1	...	1	1	...	1	1	7	8	3	1	4	1	1	2
Fevers ...	6	4	10	...	1	1	2	1	3	4	4	8	3	5	8	2	3	5	4	3	7	2	1	3	3	4	7
Worms ...	3	1	4	...	...	...	...	1	1	...	1	1	1	...	1	...	...	...	...	6	6	2	1	3	...	...	...
Accidental Deaths ...	...	...	...	...	...	...	...	2	2	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	2	1	3
	17	16	33	1	7	8	10	7	17	11	14	25	6	10	16	6	8	14	6	22	28	12	3	15	11	8	19

N.B.—M. = Males; F. = Females; T. = Total.

APPENDIX No. 6

(showing causes of infant mortality)

Kinds of diseases	1933			1934			1935			Total		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Infectious diseases	...	...	...	...	1	1	1	1	2	1	2	3
Debility	19	17	36	13	16	29	18	13	31	50	46	96
Nervous diseases	...	1	1	1	1	2	...	1	1	1	3	4
Respiratory and Circulatory diseases ...	6	4	10	6	4	10	1	...	1	13	8	21
Digestive disorder	3	2	5	...	5	5	2	4	6	5	11	16
Premature births	3	4	7	1	2	3	4	2	6	8	8	16
Fever	7	4	11	6	9	15	2	4	6	15	17	32
Worms	5	4	9	...	4	4	5	2	7	10	10	20
Total ...	43	36	79	27	42	69	33	27	60	103	105	208

N.B. M = Males; F = Females; T = Total.

CHAPTER III

PROBLEMS OF POPULATION.

The term population may be taken to mean the provision and stock of men, hence the material and stuff out of which human affairs come and by reason of which, the problems of numbers and quality of this human stuff exist. It is perhaps odd that the term population, unlike the closely related terms "immigration," "colonization," "occupation," etc., does not usually suggest the process of peopling. It comes to involve all the activities—social, economic and cultural to which men attach value and the study of population must be expanded to include a series of problems of the broadest scope. Thus, the definition and content of population problems have changed from time to time, in response to changing ideals and new modes of social and economic organization. The content of population problems at any moment in history is determined by the desires and ideals, which we hold to be the principal matters of human concern, since all human interests relate to these problems. They are influenced by the whole philosophy and the mode of life of the community and thus the study of population has become a matter of great concern in every work of this kind.

In this study the rural population of the Bhiwandi Taluka in Thana district is taken into consideration. The total number of families studied is 760 and they are fairly distributed among the important agricultural groups, viz. the farm-owners, the farm-tenants and the farm-labourers. It is really difficult to divide the rural population of this Taluka into such three water-tight compartments, as no such distinct groups exist in the Taluka. There is, therefore, every possibility of one group over-lapping, to some extent, the other. While differentiating these three groups, possession and cultivation of land has been taken into consideration, as an index of social position for our purpose. Those families that are landless or possess very insignificant pieces of land or do not cultivate rented land to an appreciable extent and depend

much upon agricultural labour for their maintenance are included in the C group. In the B group such families are included as possess or cultivate at least five acres of land or have some other source of regular income and in the A group those families possessing or cultivating more than ten acres of land or having a good source of income from trade and commerce are included.

There are in all 19 castes represented by 760 families and the following table gives their distribution by caste and Economic position.

TABLE No. 1

(showing the total number of families and their castes)

Castes	A	B	C	All
Kunbi ...	52	338	132	522
Agri ...	8	62	20	90
Muslim ...	13	25	5	43
Teli (Muslim) ...	...	9	10	19
Vani ...	2	8	9	19
Kumbhar ...	...	11	2	13
Mahar ...	...	7	6	13
Maratha ...	4	2	3	9
Brahmin ...	3	3	...	6
Koli ...	...	2	3	5
Chambhar ...	...	5	...	5
Lohar ...	...	4	...	4
Nhavi ...	...	1	1	2
Thakur ...	...	...	2	2
Katkari ...	...	...	2	2
Varli ...	...	...	2	2
Sonar ...	...	2	...	2.
Dhangar ...	...	1	...	1
C. K. P. ...	...	1	...	1
	82	481	197	760

The population of these three classes, comprised in our sample is 5,247, out of which 2,609 are males and 2,638 females.

Thus the percentage of females is 50.3 and the average number of members per house-hold is 6.9. The following table gives the details, in relation to the three Economic groups :—

TABLE No. 2

(showing average members per household and percentage of females)

Economic Groups	Households	Population			Average	Mode	Percentage of Females
		Males	Females	Total			
A	82	469	483	952	11.6	10	50.7
B	481	1,653	1,685	3,338	6.9	7	50.5
C	197	487	470	957	4.8	4 or 5	49.1
All	760	2,609	2,638	5,247	6.9	5	50.3

Sex Ratio :

From the above table we can see that on an average, there is a slight preponderance of females over males, in the whole sample. From the appendices Nos. 1 to 4 it can be seen, that on an average, more boys are born than girls. In consequence of this excess of male-births, males out-number females in the age-group of 0-14. During the period of reproductive age, among women, i.e. roughly speaking between 15-49, the females though in excess, do not show much difference in the ratio as can be seen from these appendices. It may be due to the fact that though the number of females that enter into the age-group 15-49 is equal to, or is in slight preponderance over the males, the females have to undergo the risk of death, owing to pregnancy, which is very great in our sample, owing to the lack of proper medical help and colossal ignorance of these classes, in matters regarding maternity welfare. But after this period the sex-ratio becomes entirely unequal, so much so, that above the age of 60, for every two females, there is roughly speaking one male. From these appendices it can be also seen that, there are 231 males living above the age of 49, out of them 197 are married and the

remaining 34 are widowers ; while there are 293 females living, out of whom only 58 are married and the rest 235 are widows. Thus, normally women predominate over males at all ages from 15 years onwards, to some extent, in spite of the preponderance of boys over girls at birth.

There are various reasons why women predominate over males. Firstly, men are more exposed to accidents and hard life in rural areas than women. Secondly, women on an average are more hardy than men and after the reproductive period is over, they have more death-resisting capacity and naturally they live long.

From table No. 2 we can find that the ratio of 1,011 women to 1,000 men is the average, in our sample. But it is clear from the appendices that it is not uniform throughout and it varies according to the different age-groups. It does not hold good, also, in the three Economic groups, as from the same table we can find that the number of females to 1,000 males is respectively 1,030, 1,019 and 965.

According to the Census Report of 1931, the sex-ratio in British Districts is 909 females per 1,000 males, and in the Bombay States, it is 952 females per 1,000 males.[1] "The British Districts show much lower figures for females than do the Bombay States. This is chiefly due to the influence, which Sind and to a lesser degree the immigrant-fed cities of Bombay and Karachi exert upon the Presidency totals."[2] But in the Konkan Division which includes the Bhiwandi Taluka, the sex ratio is 51.6 : 48.4, the females being in preponderance.[3]

The disparity of males in the Konkan Division may be explained by emigration, as when the Census was taken, many of the males of this division were working in the Bombay City or elsewhere. But this reason does not exactly hold good in our sample. Out of the 760 families studied, there is not a single male who has left his home, for some sort of occupation, out-

[1] *Census of India*, Vol. VIII, Part I, Bombay Presidency, p. 118.
[2] G. Raghao Rao—*Indian Journal of Economics*, Vol. XVIII, 1937-38, p. 125.
[3] *Census of India*, Vol. VIII, Part I, Bombay Presidency, p. 118.

side the area. All the families that are studied here are genuine agriculturists, who have keen interest in land and who look after their agricultural occupations throughout the year and still we find that women are in preponderance to some extent over men. So the disparity of males in the Konkan Division may be partially due to emigration, but there may be some other factors, such as the geographical and economic environment, which can explain this state of affairs. This disparity is certainly due not to the difference in the sex-ratio at birth, as we have seen that more boys are born than girls, but to the difference in the death-rates, according to sex in the early age periods.

The sex-ratio affects the growth of population through the birth-rate and the death-rate. So it is of vital importance in the study of population problems. It has a direct bearing upon the number of females in the reproductive period, which helps to determine the true rate of population growth and the influence of the various factors upon fertility and the make-up of population. We will discuss this aspect later on, when we come to the topic of fertility.

Age Composition :

We have touched upon age distribution in relation to sex. Age distribution is of great importance, quite apart from sex. There is no such thing as an invariable distribution. Different communities are markedly contrasted, in respect of numbers of the school age, those of the working age and those who have retired from active life. It is of great importance because in the first place, the productive capacity of the population is dependant upon the proportion of its numbers who are in the earlier and the later age-groups on the one hand, to those in the middle age-group on the other. Children and old persons are non-workers. They are, therefore, to be supported by the labour of persons in the age-group 15-49. Naturally, the productive capacity of the community will depend, among other things, on the proportion of non-workers, whom the workers have to support directly or indirectly. Secondly, the age compo-

sition of the population will have an important effect upon the nature of consumption. The proportion in which different types of commodities and services are demanded by a community depends as a whole on the distribution of its total resources, human and material, over different lines of production. Lastly, the age structure of the population at any time determines the rate of growth in the present and in the near future.

The ages that are reported at the time of the inquiry are the crude ages and it is necessary to rearrange them in order to avoid the errors in the ages. The following table is computed, after rearranging the crude ages according to the method mentioned in the appendix No. A and it shows the age distribution of the whole population in our sample, in relation to the Bombay Presidency (British Districts) figures and the figures for England and Wales for 1931.

TABLE No. 3

(showing age distribution)

Age-Groups	A	B	C	Whole sample	Bombay[1] Presidency	England and Wales[2]
0–14	44.0	41.1	41.0	41.3	39.2	23.8
15–19	9.9	8.9	7.2	8.8	9.0	8.6
*20–29	17.3	18.0	16.3	17.8	18.6	17.3
30–39	11.0	13.2	13.3	12.8	14.8	14.6
40–49	7.4	7.3	8.4	7.7	9.4	13.0
50 and over	10.4	11.5	13.8	11.6	9.0	22.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

If we take the whole sample as an "index", the above table can be rearranged with reference to the Economic status in the following way :—

[1] *Census of India*, 1931, Vol. VIII, Part II, p. 97.

[2] *The Registrar General's Statistical Review of England and Wales for the year* 1931 (New Annual Series No. 2), Table Part I, Medical p. 1.

* The ten years groups in the sample are kept for comparison with the figures of England and Wales and Bombay Presidency.

TABLE No. 4

(showing age distribution in percentage)

Age-Groups	Whole sample	A	B	C	Bombay Presidency (British Districts)	England and Wales
0–14	100	106.5	99.5	99.2	94.9	57.6
15–19	100	112.5	101.1	81.9	102.3	97.8
20–29	100	97.2	101.1	91.0	104.5	97.2
30–39	100	86.0	91.0	103.9	115.9	114.1
40–49	100	96.1	104.5	109.1	122.1	168.9
50 and over	100	89.7	97.2	110.4	77.8	195.7

From the above two tables, we get very interesting and instructive results. In the C group there is a higher percentage of old persons than in the A and B groups. If we refer to table No. 3 we can see that the working population of the three Economic groups is respectively 45.6 : 47.4 : 45.2. Thus, the C group which is economically backward has also to provide food for a little larger percentage of dependants. Another thing that can be noticed is that, there is a decline which is rather sharp in the age-group 15-19 of the C group. This is a feature peculiar to this group and may be explained by the fact that the death-rate in this age-group, of this economic group, is higher than that in the other two groups. The lowest dip is reached in the A and B groups, in the age-group 30-39 but in the C group it is reached in the age-group 15-19. The highest point is reached in the age-group 15-19 in the A group and in the age-group 40-49 in B but in the C group, it is reached in the age-group 50 and above. It can also be seen that the number of persons in the age-group 0-14, in the three economic groups A, B and C is higher than that in the British Districts of the Bombay Presidency, which may mean that the average birth-rate in all these three classes is greater than the average birth-rate in the British Districts of the Bombay Presidency. The table also indicates that we have, on an average, a higher birth-rate than that in England and Wales, but we have a smaller span of life. A and B move sympathetically after 29 to 49 and contrary to the trend of the Bombay

Presidency wherewith the C agrees. C alone, strange to say, shows, though in a very small measure, agreement with the English trend after 49.

Households :

The above topics follow naturally the inquiry into the total population. But the fullest information regarding the sex-ratio and age distribution does not lead us far, in having any fair picture of the society which we are studying. This is quite obvious. For, society is not composed of units thrown together by chance, like grains of sand. It consists of groups of persons who at least so far as the adult members of the groups are concerned have come together consciously and with a set purpose. These groups are typically family groups —father, mother, children, with other relatives who may be living. "Such families are essentially natural families, the relatives being such dependants, as they do not affect the basic house-hold of husband and wife."[1] The house-hold is important, not only as it plays so large a part in the emotional life but also because within it there is an element of communism, at least to the extent that, what is important is family resources and not individual incomes.

The next question is of the size of the house-hold. In my two previous studies,[2] I have mentioned quite a large number of surveys that have been carried on, in Konkan and in the Bombay Deccan. These Surveys give us different sizes of the house-hold, varying from 4.6 to 7.3 persons per household. If we refer to table No. 2, we find that the average size of the household of the whole sample, in this survey is 6.9. But it varies according to the three Economic groups ; thus, it is 11.6 in the A group, 6.9 in B and 4.8 in C. If we look into appendix No. 7 we find that the maximum size of an individual family, in the three groups is respectively 33, 23 and 13. Thus, we can fully realize that it is not possible to give a tolerably correct picture of the size of a household in terms of the usual statistical devices.

[1] *Some Village Studies*—Dr. G. S. Ghurye and Mr. S. R. Deshpande, Indian Journal of Economics, Vol. VII, p. 472.

[2] *The Untouchable Classes of Maharashtra*, p. 3, and *The Untouchable Classes of the Janjira State*, p. 7.

Civil Condition :

But since these groups forming the house-holds, are the family groups, the problem may be approached by asking, how many married persons are there. The following table gives the civil condition of the population :—

TABLE No. 5

(*showing civil condition*)

Civil Condition	Total Number		Percentage	
	M.	F.	M.	F.
Single	1379	1028	52.8	38.9
Married	1167	1238	44.8	46.9
Widowed	63	372	2.4	14.2
Total	2609	2638	100.0	100.0

N.B.—M. = Males ; F. = Females.

The above table is prepared from appendices Nos. 1, 2 and 3. It gives a clear idea about the marital condition of the whole sample. The first thing to which our attention is attracted is the greater percentage of widows than of widowers. There are various reasons for this. Firstly, men are more exposed to hard life and accidents than women. Women, as we have seen, after the age of 50 live longer than men. Men when they marry are on an average older than women, so naturally tend to die, before their wives. From the above table it can be also noted that there is an excess of married women and it is due to the system of polygyny prevailing among these classes. Again, the excess of women over men probably results in widowers marrying more readily than the widows. They enter into a second and subsequent marriage much more frequently than women.

The second point that we can notice is that the proportion of unmarried to married males is higher than the proportion of unmarried to married females. This is obvious, for,

although it is true that there is universality of marriage among these agricultural classes, yet the age at marriage on an average is different for the males and for the females. Girls are married, on an average, before the age of 14 ; while boys are married at the age of about 20. So this difference is responsible for the difference in the proportion of the married and unmarried males and females.

Let us now, go into details. Let us find the proportionate ratio of single, married and widowed, in each of these three groups with reference to the economic status. The following table gives the details :—

TABLE No. 6

(showing civil condition)

Economic Groups	Male				Female			
	Single	Married	Widowed	Total	Single	Married	Widowed	Total
A ...	254	208	7	469	213	230	40	483
B ...	864	747	42	1653	639	788	258	1685
C ...	261	212	14	487	176	220	74	470
All ...	1379	1167	63	2609	1028	1238	372	2638
Percentages								
A ...	54.2	44.3	1.5	100.0	44.0	48.0	8.0	100.0
B ...	52.3	45.2	2.5	100.0	38.0	47.0	15.0	100.0
C ...	53.5	43.5	3.0	100.0	37.0	47.0	16.0	100.0
All ...	54.5	43.1	2.4	100.0	38.9	46.9	14.2	100.0

From the above table it can be seen that the percentage of unmarried girls is highest in the A group and lowest in the C group. It may be perhaps due to the fact that the families in the A group are more literate and as such, more alive to the new trend of modern thought and therefore, they allow their daughters to remain unmarried a little longer, while in the C group, the families, owing to their illiteracy and conventional social ideas, resort to early marriages to a greater extent. Besides, the A group includes Brahmins, Muslims and Marathas to some extent, who generally allow

girls to grow up a little, before getting them married, than do the other communities, in the rural areas. Another feature that can be noted is that the percentage of the widows in the C group is higher than that in any of the other two groups, probably because the longevity of the males in the C group may be less than that of the males of the other two groups, due to 'want of sufficient food, clothes and shelter'. The practice of widow-remarriages is prevalent among all the communities in our sample, except in a few communities such as the Brahmins and the Marathas. There are certain conditions to be fulfilled before remarriages take place and these conditions affect equally all these classes and thus rule themselves out, as the causes of the disproportion in the percentages of widows. But the widows of the C group have additional barriers, such as the loss of their health owing to their poverty, low status in society, etc., which debar them from getting remarried. Poverty cannot be assumed to be the cause of a larger percentage of males in the C group remaining unmarried, as, among all these agricultural classes, to remain unmarried is taken to be a social stigma and males get married even incurring huge debts for it as can be seen from Chapter No. V. Therefore, it can be seen that the percentage of widows in the C group and to some extent in the B group also, is higher not for any other reason, but for the main reason mentioned above.

The percentages of married women of all ages to the total number of women in these three Economic groups are respectively 48, 47 and 47. According to the Bombay Census Report of 1931, these percentages are 42.0 in the Advanced communities, 51.8 in the Intermediate communities, 47.9 in the Backward communities and 55.8 in the Depressed communities.[1]

From table No. 6 it can be seen that in the A group the widows are comparatively lower in percentage than in the other two groups. This may, perhaps, be due to the fact that males in this group may find it more easy to remarry than

[1] Dr. G. S. Ghurye: *Fertility-Data of the Indian Census of* 1931, *Journal of the University of Bombay*, Vol. III, Part I, p. 119.

the males in the B and C groups, probably owing to their economic position and a desire for having some responsible persons to look after their agricultural work as they have proportionately larger holdings.

Out of 1,238 married females, mentioned in the above table there are 1,052 females in the productive period that is between 15-49. The following table shows their distribution, according to the age-groups :—

TABLE No. 7

(showing wives in the different age-groups)

Economic Groups	Age-Groups							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	under 50
A	45	47	33	29	19	15	8	196
B	144	155	128	105	63	44	30	669
C	33	39	38	34	21	15	7	187
All	222	241	199	168	103	74	45	1052
Percentage								
A	22.9	23.9	16.7	14.8	9.7	7.9	4.1	100.0
B	21.5	23.2	19.3	15.7	9.4	6.6	4.3	100.0
C	17.9	20.6	20.3	18.2	11.2	8.0	3.8	100.0

From the above table which is computed from the figures in appendix No. 5 it can be seen that in the age-groups 15-19 and 20-24 married females are in greater preponderance in the A group than in the other two groups, especially than in the C group which shows a very low percentage. But afterwards, in the A group, the percentage is less than in the B or the C group. The C group has a higher percentage than the other two groups. This distribution of married women has a great effect upon the total fertility of each of these three Economic groups, which we will discuss later.

It will be necessary to study the percentages of married women in these age-groups, to the total number of women of

the groups, to have a correct idea about the growth of population. The following table gives the percentage of married women in all these age-groups in the three groups, together with the figures for India and Bombay Presidency according to the Census Report of 1931.

TABLE No. 8

(showing percentage of wives in the different age-groups)

Age-Groups	India 1931	Bombay Presidency 1931	Whole Sample	A	B	C
15–19	81.8	86.0	90.6	92.0	90.0	91.6
20–24	88.6	90.8	93.3	96.0	93.4	92.9
25–29	86.8	88.0	94.4	92.7	96.2	92.7
30–34	82.5	83.0	88.4	89.0	89.0	89.6
35–39	70.3	70.1	75.8	95.0	71.1	68.8
40–44	62.7	61.3	67.3	88.2	65.7	57.9
45–49	48.4	45.0	50.0	72.8	45.5	46.6

It can be seen from the above table that in the A group, in the age-group of 20-24 there is a higher percentage of married women. In the B group it is higher, in the age-group of 25-29 and in the C group it is higher in the age-group 20-24. But upto the age-group 30-34, the percentages of married women are roughly speaking equal in all these three Economic groups, but afterwards they become very unequal. In the B and in the C group, they are more rapidly declining than in the A group. This may have a great effect upon the fertility of these different classes. Again, this unequal proportion of the married women after the age of 35, is due to the differential mortality among females which is highest in the C group and is greater in B than in A.

Before we enter into the topic of fertility that is the balance of birth and death as Kuczynski would say, whereby we can know the trend of our population, whether it is progressing or regressing, we will discuss first the conidtions

under which marriages take place in the three groups. The important aspects about marriage in the Indian Agricultural Population are two: First, child-marriages and secondly, polygyny. We will try to analyse these two aspects in our data.

Age at Marriage:

The following table gives the age at marriage of the females of the three groups. From table No. 6, it can be seen that there are 1238 married females, in all these three groups, out of whom we possess data about the age at marriage of 1050 females, excluding the females who were polygynously married or remarried. The age at marriage was found out after personal inquiry on the spot, with the help of the elderly persons from the families.

TABLE No. 9

(*showing wife's age at marriage in the three Economic groups*)

Economic Groups	0-4	5-9	10-14	15-19	20 & above	Total
A ...	6	41	125	9	1	182
B ...	8	142	518	13	...	681
C ...	1	31	139	16	...	187
All ...	15	214	782	38	1	1050
Percentages						
A ...	3.1	22.5	68.7	5.0	.7	100.0
B ...	1.2	21.0	76.1	1.7	...	100.0
C ...	.5	16.6	74.3	8.6	...	100.0
All ...	1.4	20.4	74.5	3.6	.1	100.0

The above table suggests that in the A group, child marriages in the age-group 0-4 are higher in percentage than in the two other groups. It is in the proportion $A > B > C$, which shows that there is some correlation between child marriages and the economic status of the people, in life. This statement also holds good for the age-group 5-9. But in the age-group

10-14, we find that A < B > C and A < C which means that in this age-group, the highest percentage of marriages that take place are in the B group. It is no doubt true that it is in this age-group, that most of the marriages are being effected. In the age-group 15-19 we can see that the marriages in the C group are higher in percentage than in B or in A. A>B and this is obvious because the A group includes Brahmins, Muslims, Marathas and Vanis, wherein child-marriages do not frequently take place. There is only one case in the A group where marriage has taken place above the age of 19.

The above table can be reduced to the following simple table :—

TABLE No. 10

(showing wife's age at marriage)

(in percentages)

Economic Groups	0-14	15-19	20 and above
A ...	94.3	5.0	.7
B ...	98.3	1.7	...
C ...	91.4	8.6	...
All ...	96.3	3.6	.1

Although we have seen from table No. 9 that in the age-group 0-4 and 5-9, the marriages are in the order A> B >C yet, we can see from the above table, that the percentage of child-marriages is higher in the B group than in A or in C. In the A group the percentage is less, probably, because it includes families of advanced communities to the extent of 28 per cent. There is also a lower percentage of child-marriages in the C group, probably it may be due to their poverty.

Let us compare these figures with the Konkan Division and the selected communities of India.

TABLE No. 11[1]

(showing percentage distribution of families according to wife's age at marriage)

—	Below 15	15-19	20 and above
Advanced Classes (Konkan) ...	37.8	50.1	3.1
Intermediate Classes „ ...	34.5	58.8	6.7
Backward Classes „ ...	32.3	56.8	10.9
Depressed Classes „ ...	29.8	60.4	9.4
Hindus (All-India) ...	45.3	43.4	11.3
Muslims „ ...	30.1	43.6	26.3
Christians „ ...	34.2	51.6	14.2
Sikhs „ ...	36.7	45.5	17.8
Our whole sample ...	96.1	3.6	.1

From a study of the above table, we can see that child-marriages are in a greater percentage in our sample than in all the communities mentioned above.

We have seen the wife's average age at marriage in the above discussion. Now, let us take into consideration the total number of marriages that were contracted during the period 1927-1935, in all the 760 families in the three Economic groups. The table No. 12 on page 58 gives these details :—

From table No. 12 it can be noted that there exists some correlation between the number of marriages that are contracted every year, and some other factors in life. For instance, taking the whole sample into consideration, it can be seen that in the year 1928, a maximum number of marriages have taken place namely 16.9 per cent, while in the year 1930, the percentage is only 8.9, which is the minimum during these nine years. What may be the reason ? Certainly marriages are eventful occurrences in Indian life, especially in the rural life which we are studying and as such, there should be a keen desire in the minds of the parents to celebrate the marriages of their sons and daughters. But the marriage expenditure that these people have to incur is very great, not

[1] Dr G. S. Ghurye: *Fertility-Data of the Indian Census of* 1931, *Journal of the University of Bombay*, Vol. III, Part I, p. 120 and p. 136.

TABLE No. 12

(showing the total number of marriages contracted during 1927–35)

Economic Groups	Years									
	1927	1928	1929	1930	1931	1932	1933	1934	1935	Total
A ...	5	17	8	4	6	9	4	7	8	68
B ...	24	34	21	26	28	23	33	25	33	247
C ...	6	12	7	4	6	10	3	7	8	63
All ...	35	63	36	34	40	42	40	39	49	378
Percentages										
A ...	7.3	25.0	11.8	5.9	8.8	13.2	5.9	10.3	11.8	100.0
B ...	9.8	13.8	8.5	10.5	11.3	8.9	13.5	10 2	13.5	100.0
C ...	9.5	19.2	11.1	6.3	9.5	15.9	4.8	11.1	12.6	100.0
All ...	9.3	16.9	9.5	8.9	10.6	11.1	10.6	10.3	12.8	100.0

within the reach of their savings or credit and they have naturally to incur debts, sometimes at heavy rates of interest. We will come to this topic in the Chapter on indebtedness. But the reasons why there are ups and downs in the number of marriages that are celebrated every year are not far to seek. For instance, in the year 1928 there have been a maximum number of marriages owing to the fact that in that year the *Sharada* Act was to come into force, so the people in order to avoid punishment under the Act, celebrated as many marriages as they could, irrespective of the ages of their children. Again in the year 1930, there are a minimum number of marriages contracted, probably owing to 'depression' the prices of the agricultural commodities had fallen to 50 per cent of the prices prevailing in the previous year and these people could not adjust themselves to such unexpected fall in prices, in their daily life, which was evolved through their usual standard of life. Under such circumstances, they could not think of incurring additional expenditure, on such social celebrations and naturally they put off the marriages of their children. In 1927 and 1934, there was a little lower percentage

of marriages owing to bad crops. In 1929 the percentage was low probably, as in the previous year there were a maximum number of marriages and naturally it had an effect upon the total number of marriages next year, as there were few children left, of marriageable age. So, it can be seen that the marriages have a correlation with the important events that happen during the year, such as fall in prices of agricultural commodities, bad crops etc.

We have remarked that there is a tendency towards early marriages, taking the whole sample into consideration. Now let us take into consideration, those marriages that have been celebrated during these nine years (1927-1935), in order to get a clear idea about the tendencies with regard to the age at marriage. The following table gives the age at marriage of females married during the period 1927-1935 :—

TABLE No. 13

(*showing wife's age at marriage during* 1927-35)

Age at marriage	1927	1928	1929	1930	1931	1932	1933	1934	1935	Total
1	...	...	...	...	...	...	...	...	...	...
2	...	...	1	...	...	...	...	...	1	2
3	...	...	...	...	...	...	...	...	...	...
4	...	1	...	...	1	1	...	...	...	3
5	...	...	...	...	1	...	...	1	...	2
6	1	...	...	...	...	...	...	...	...	1
7	...	1	1	...	...	2	1	1	2	8
8	...	3	1	1	1	4	1	2	1	14
9	2	3	4	1	3	1	...	1	4	19
10	...	13	1	1	7	2	5	4	9	42
11	15	...	7	2	1	2	9	3	6	45
12	...	26	3	18	1	13	5	8	6	80
13	15	1	15	1	18	4	12	8	10	84
14	...	13	...	10	2	13	5	6	7	56
15	...	1	2	...	4	...	2	1	3	13
16	2	1	1	...	1	...	...	2	...	7
17	...	...	...	...	...	...	...	1	...	1
18	...	...	...	...	...	...	...	...	...	...
19	...	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	1	...	1
Total	35	63	36	34	40	42	40	39	49	378

We can see from table No. 13 that the mode of age at marriage for the marriages celebrated during the period 1927-1935 is 13. The following table gives the age at marriage, of the marriages contracted during 1927-1935, in comparison with the total marriages of the whole sample mentioned in table No. 9 :—

TABLE No. 14

(showing wife's age at marriage)

—	Age at marriage					
	0-4	5-9	10-14	15-19	Above 20	Total
Whole sample as per Table No. 9 ...	15	214	782	38	1	1050
Total number of marriages during 1927-35 ...	5	44	307	21	1	378
Percentages :						
Whole sample as per Table No. 9 ...	1.4	20.4	74.5	3.6	.1	100.0
Total number of marriages during 1927-35 ...	1.3	11.6	81.2	5.6	.3	100.0

From the above table it can be seen that the wife's age at marriage in the second group is higher than that in the first group. The second group, as we have seen, includes the marriages that have been contracted during the period 1927-1935 while the marriages in the first group have been contracted during the period of the last thirty years and more. Thus, it is obvious that the wife's age at marriage has tended, in the recent period, to be higher than that in the former period.

But the average age at marriage during the period 1927-1935 comes to 11.3 years, the highest average being 12.3 in the years 1930 and 1934. The following table gives the details :—

TABLE No. 15

(showing wife's average age at marriage during 1927–35)

—	1927	1928	1929	1930	1931	1932	1933	1934	1935	Total
Total Years	416	610	415	418	475	431	470	478	561	4274
Total Marriages	35	63	36	34	40	42	40	39	49	378
Average age at marriage	11.9	9.7	11.5	12.3	11.9	11.8	11.7	12.3	11.5	11.3

Thus, the wife's average age at marriage is 11.3. It is lowest, being 9.7 in the year 1928 and highest, in the years 1930 and 1934, being 12.8. As we have seen above, in table No. 12, in the year 1928 there was a higher percentage of marriages, owing to the *Sharada* Act that was to come in force and naturally people tried to celebrate as many marriages as possible, so that they may not come into trouble, next year. In the years 1930 and 1934, the wife's average age at marriage was 12.3, which is the maximum, during these nine years. The year 1930 was the " depression " year in which the prices of the agricultural commodities had fallen down to 50 per cent of the previous year and in the year 1934, there were bad crops ; so, naturally, the wife's age at marriage was a little higher. On the whole we can conclude that among these agricultural classes there is a greater tendency towards child-marriages as it can be seen from table No. 14 that out of the total marriages in the whole sample, 96.3 per cent are contracted before the age of 14.

Polygyny :

The next important topic is polygyny. There are in all 76 cases in the three Economic groups, wherein the males have married another wife during the lifetime of the first wife. The following table gives us some idea for the reasons of such marriages :—

TABLE No. 16

(showing male adults married second time, classified according to the number of children from the first wife)

Children from the first wife		No. of families			
Male	Female	A	B	C	Total
...	...	3	22	3	28
...	1	1	3	2	6
...	2	...	1	...	1
...	3	1	2	...	3
...	6	...	1	...	1
1	...	5	4	1	10
1	1	...	4	2	6
1	2	...	3	...	3
2	...	2	1	...	3
2	1	1	4	...	5
2	2	1	1	...	2
3	...	...	3	...	3
3	2	...	1	...	1
4	1	...	1	...	1
4	2	1	2	...	3
—	—	15	53	8	76

From the above table it can be seen that out of 76 second marriages that were contracted, 39 were contracted as there was no male issue from the first wife. According to the three Economic groups, the percentage of such marriages is 33.3, 54.9 and 62.5, respectively. This clearly shows that in the B and C groups, marriages of this nature are entered into, largely for the purpose of getting male issues, a fact which is very predominent, in the Indian social psychology, especially among the rural population. Nineteen marriages have been contracted, when there was only one male issue. The percentage of such marriages comes to 33.3, 20.7 and 37.5 respectively in the three Economic groups. To have one male child surviving is according to the outlook of these people a risky thing, as in the case of the death of that child, they will be left without a male issue. So in order to avoid risks of this type, they go in, for a second marriage. Now the marriages that take place for considerations other than the

male issue, depend upon economic position. For instance, we find that percentages of such marriages in the three Economic groups are respectively 33.3, 24.4 and 0 per cent. Generally the A and B groups go in, for second marriages in such cases simply because, they get one additional member in their families, who can look to the agricultural operations. It is a well-known fact that labour sometimes becomes scarce for agricultural work which has to be done in time. Thus, it can be safely said that such marriages occur for the purpose of adding a working member to their family. This is not possible in the C gorup as the families in this group are practically landless.

Fertility :

The growth of population depends upon the two opposite forces, birth and mortality. But it is erroneous to depend upon these two considerations only, which give us the crude birth-rate and the crude death-rate, that is the number of births and the number of deaths per 1000 persons, per year. The idea of over-population is sometimes based upon the number of deaths and the number of births in a given time and the net size of the population. But " very few people realise that population can continue to increase for some time while its fertility or mortality is such that ultimate extinction would be inevitable, if they remained unchanged.[1] " Even taking for granted that there is an enormous preponderance of women of child-bearing age and the birth-rate is higher than the death-rate, still it cannot be definitely said that there will be an increase in the population. Firstly, the proportion of women of child-bearing age would diminish during at least the first 15 years. During this period the proportion of males and females below and above child-bearing age would be increasing. So the number of births per 1000 members of such a population would go down. Likewise, the number of deaths would at first increase, owing to the increasing population of young children and old women, because the risk of death is greatest in the first few years and at the latter end of the normal span. Although the fertility and the agencies affecting the risk of death remain

[1] Enid Charles—*The Twilight of Parenthood*, p. 38.

absolutely constant, such a community, initially increasing, would soon begin to diminish and continue to do so steadily.

John Graunt, the founder of Vital Statistics, used the method of measuring fertility with the help of the correlation of the number of births, occuring in a certain period to the number of marriages contracted in that period. But there are obvious defects in this method. The first is that no account can be taken of illegitimate births. Secondly, the number of births per marriage does not show the total fertility of married persons, since the same man and woman may appear twice or more often among the married couples and naturally under such circumstances, there will be a small ratio of births to marriages ; and lastly births are not the outcome of contemporaneous marriages, but of marriages which precede such births by a more or less long period.[1]

Thus, it can be well understood that the balance of births over deaths gives us no indication of the capacity of a population for further growth, unless its age composition is known. The specific age composition, within the reproductive period will affect the number of children. Two populations of women in the reproductive age, having the same general fertility rate but having different age-compositions within it, will constitute differently to future populations. The age composition, as we have seen, does not depend upon fertility or mortality, prevailing at a given time. They depend upon the conditions which have prevailed during the whole period or more strictly, during the period of the life-time of its oldest members. Fertility is the decisive factor in determining the population growth rather than any other features and the births by age of the mother, sex-ratio, age composition etc. are looked upon as the important factors in finding out the fertility-rate. The data about male section can generally be neglected. What is important is the rate at which the female population is reproducing itself.

The following table gives the number of wives of the reproductive period in our sample, according to the Economic

[1] Kuczynski, R. R.—*Movement of Population Growth*, p. 34,

groups. Out of 1052 wives in the age-group 15-49, we have got information about the number of surviving children of 944 wives.

TABLE No. 17

(showing wives in the reproductive period)

Economic Groups	Age-Groups							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
A	41	44	32	27	16	14	8	182
B	140	144	112	93	47	38	30	604
C	33	33	29	26	17	13	7	158
All ...	214	221	173	146	80	65	45	944
Percentages								
A	22.2	23.7	17.3	14.4	8.8	7.8	5.8	100.0
B	23.2	23.9	18.6	15.4	7.8	6.3	4.8	100.0
C	20.8	20.8	18.2	16.4	10.6	8.2	5.0	100.0

It can be seen from the above table that broadly speaking, in the C group the wives in the age-group 15-29 are less than those in the other two groups, but after that period the C group has got, on an average, more wives than the other two groups. Thus, this group has a higher percentage of wives in the later stage of reproductive period than in the A or in the B. This will have some effect upon the effective fertility of these wives. The following table gives the details.

TABLE No. 18

(showing total number of surviving children according to age-groups of wives)

Economic Groups	No. of surviving children according age-groups of wives							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
A ...	40	68	86	86	50	56	50	436
B ...	127	203	284	274	151	130	111	1280
C ...	33	54	80	67	47	39	25	345
All ...	200	325	450	427	248	225	186	2061

From the tables Nos. 17 and 18 it can be seen that on an average, there are 2.4 surviving children per wife in the A group and in the B and C groups there are 2.1 surviving children. So the total effective fertility has a correlation with the standard of living of the people, in life. Again, if we take into consideration the effective fertility of each age-group of these three Economic groups, we will find altogether a different ratio. The following table gives the details :—

TABLE No. 19

(*showing surviving children per* 100 *wives of specific age-groups*)

Economic Groups	Children per 100 wives						
	15–19	20–24	25–29	30–34	35–39	40–44	45–49
A	98	154	269	318	312	400	454
B	90	141	253	295	321	342	384
C	100	164	276	258	277	300	313

From the above table we can note that the effective fertility in the C group in the first part of the reproductive period that is 15-29 is higher than that in the other two groups. It must be also remembered that child mortality is higher in this group, as we have seen elsewhere, than in the other two groups, so that the total fertility in this group must be much higher than that in the other two groups. The relationship of child mortality to fertility is both close and complex, a fact which causes difficulty in the interpretation of the differences found to exist between these three groups in regard to both the total and the effective fertility. " It seems probable both that in many cases, children die, because many are born and that many are born because comparatively few survive."[1]

The above table can be rearranged in order to have a correct idea of the reproductivity of these three groups in the different age-groups, according to the percentage of the surviving

[1] Stevenson, T. H. C.—*Journal of the Royal Statistical Society,* Vol. LXXXIII, Year 1920, p. 402.

children, in each age-group. The following table gives the details.

TABLE No. 20

(showing percentage of surviving children in the different age-groups)

Economic Groups	15-19	20-24	25-29	30-34	35-39	40-44	45-49
A	34	33	36	35	38	39	39
B	31	32	34	34	33	33	33
C	35	35	30	31	29	28	28
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Thus, it can be visualised that in the A group, the average number of surviving children is, roughly speaking, increasing, though there is a drop in the second age-group. In the B group it is highest during the age-groups 25-29 and 30-34 and after that period it has declined. In the C group, during the period 15-24 the effective fertility is higher than that in the A or in the B group, but after the age of 25, it suddenly drops down. It may mean that the fertility of the women of this group starts at a very high rate in the early part of the reproductive period. It rises to the peak at the age of 25 and then it suddenly drops down, after that period. This may be perhaps due to the fact that the reproductive capacity becomes low after this age or owing to poverty and low vitality, these women give birth to children who must be weaklings so that many of them must be dying as soon as they are born.

From the above table it would also appear that fertility of the wives from the A group is markedly low below 30 years of age ; the other factor viz. of high infant mortality cannot be believed to be of greater potency in their case than in those of the B and C groups. In the wives from the C group on the other hand, fertility during this period must be very great indeed, if infant and child mortality in this group are taken into consideration, which are very high.

"For the study of problems of population it is rather the effective fertility of an average marriage that needs to be considered ; for, it determines the make-up of the next generation and gives us a fair indication of the proportions in which various social strata will contribute to it." [1] From our data we can say that although in the C group the total fertility is higher than that in the other two groups, the effective fertility is comparatively less. Women in this group give birth to more children, during the first part of the productive period, but owing to the proportionately high child-mortality, the effective fertility is less than that in the other two groups.

Now, let us examine the duration of marriages of all these women in relation to the surviving children. The duration of marriage as a topic of scientific study has two purposes viz., (i) to unravel the sources of differential fertility, if any, and (ii) to gauge the measure of satisfaction of the natural impulses and social sentiments of the people. It is possible to study the first purpose statistically but the second purpose which is very important in social life stands outside the purview of statistics. The table No. 21 on opposite page gives the details about the duration of marriages of mothers in relation to the surviving children.

Out of the total 1052 mothers in the age-group 15-49, we have got information about surviving children in different durations of marriages of 913 mothers. There are in all, 1754 surviving children of these mothers in the duration of 30 years of married life, thus, giving on an average, 1.9 children per mother. The table on opposite page shows the number of children per mother in each duration-group of marriage and the number of children in excess in each duration-group over the previous group and from that it can be said that the fertility rate is highest, when the duration of marriage is 6-10 years. After this period, the fertility rate has steadily declined in the following two duration-groups of marriage, i.e. when the duration of marriage is 11-15 and

[1] Dr. G. S. Ghurye—*Fertility-data of the Indian Census of* 1931, *Journal of the University of Bombay,* Vol. III, Part I, p. 128.

TABLE No. 21

(showing surviving children in different duration of marriages)

(Whole Sample)

No. of children	No. of mothers of specific duration of marriage						
	1-5	6-10	11-15	16-20	21-25	26-30	Total
0	134	51	26	23	6	4	244
1	56	63	26	15	11	8	179
2	23	58	41	24	15	16	177
3	1	30	42	43	17	23	156
4	2	7	17	30	11	13	80
5	...	...	6	15	12	9	42
6	...	...	5	8	6	6	25
7	...	...	...	2	4	2	8
8	...	...	...	1	...	...	1
9	...	...	...	1	...	...	1
Total No. of mothers	216	209	163	162	82	81	913
Total No. of children	113	297	362	466	260	256	1,754
Average children per mother	.5	1.4	2 2	2.9	3.1	3.1	1.9
Average children in excess in each duration-group than the previous group	...	.9	.8	.7	.2	...	

16-20 years. But it has suddenly dropped down in the next group i.e. when the duration of marriage is 21-25 years.

The wife's age at marriage has also some influence on the fertility of marriage. From table No. 9 it can be seen that we have got very few cases of marriages after the age of 14. The table No. 22 on page 70 gives the average number of surviving children, when the wife's age of marriage is below 15, in relation to duration of marriage, in the whole sample.

TABLE No. 22

(showing surviving children according to the wife's age at marriage and duration of marriage)

(Whole Sample)

	Duration of Marriage						
	1-5	6-10	11-15	16-20	20-25	26-30	Total
No. of wives ...	194	188	147	153	78	74	834
No. of children ...	117	289	340	459	260	246	1711
Average children per wife ...	.6	1.5	2.3	3.0	3.3	3.3	2.1
Average children in excess in each duration-group than the previous group	...	.9	.8	.7	.3	...	...

From the above table it can be seen that 834 wives, whose age at marriage is below 15, have 1711 surviving children, thus giving an average of 2.1 children per mother. It can be also seen that the fertility rate is highest, when the duration of marriage is 6-10 years.

If we compare table No. 21, where all the marriages are included, to table No. 22 where marriages are included when the wife's age at marriage is below 15, we find that, in both the cases the fertility rate is highest when the duration of marriage is 6-10 years and it is in descending order. Again, it can be noted that the average number of children per wife is less in the former case, than in the latter case, in all the durations of marriages.

We have seen above the fertility of marriage, according to the age of the wife at marriage. But in the analysis of the fertility of marriage according to the age of the wife at marriage, the influence of the husband's age at marriage has not been taken into account, though there is some reason to think that this factor too, has some influence on the fertility of marriage and perhaps also on the survival rate of the children. The table No. 23 on page 71 gives the details.

TABLE No. 23

(showing fertility in relation to husband's age at marriage and wife's age at marriage)

Economic Groups	Group I	Group II	Group III	Group IV	Group V	Total
			Number of marriages			
A	102	51	8	7	1	169
B	327	234	20	4	4	589
C	85	69	5	1	...	160
All	514	354	33	12	5	918
			Number of surviving children			
A	237	115	24	9	3	388
B	724	490	48	2	7	1271
C	176	152	12	1	...	341
All	1137	757	84	12	10	2000
			Average number of children per marriage			
A	2.32	2.26	3.00	1.28	3.00	2.30
B	2.21	2.09	2.50	0.50	1.75	2.20
C	2.09	2.20	2.40	1.00	...	2.13
All	2.21	2.11	2.55	1.00	2.00	2.18

Out of the total 1052 wives in the reproductive period, we have got information about fertility in relation to husband's age at marriage in the case of 918 wives. The Group I includes the cases where the husband's age at marriage is below 20 and the wife's age at marriage is below 15 ; the Group II includes the cases where the husband's age at marriage is 20-24 and the wife's age at marriage is below 15 ; the Group III includes the cases where the husband's age

at marriage is 25 and above and the wife's age at marriage is below 15; the Group IV includes such cases where the husband's age at marriage is 20-24 and the wife's age at marriage is 15-19 and the Group V includes such cases where the husband's age at marriage is 25 and above and the wife's age at marriage is 15-19.

It can be seen from the table that it is only in the first two groups that the data is sufficient for arriving at any conclusion. Taking the whole sample into consideration, the fertility rate is high, when the wife's age at marriage is below 15 and the husband's age at marriage is below 20. It is also true in the case of A and B groups; but in the C group the fertility rate is high in the case, when the wife's age at marriage is below 15 and the husband's age at marriage is 20-24.

Conclusion :

We have seen from table No. 2 of Chapter II that the growth of population during the last three decades is only 8 per cent in our Taluka and in the rural population of the villages under survey, there is a decrease of 4 per cent, while in India there is an increase of 19 per cent and in the Bombay Presidency, there is an increase of 17 per cent. So, it can be seen that the growth of population in the Taluka is not rapid, as compared with the figures in India and in the Bombay Presidency. The two factors that affect the natural rate of increase of population are the birth-rate and the death-rate. A high rate of increase may be due to a high birth-rate or the low death-rate or it may be due to both. The birth-rate in our Taluka, on an average during the years 1933, 1934 and 1935, was 42, as can be seen from table No. 4 of Chapter II. The birth-rate in India, during the years 1931-35 was 35[1] and that of Bombay Presidency, during the period 1921-31 was 35.9.[2] Thus, the birth-rate in our sample is comparatively higher than that in India or in the Bombay Presidency. The average death-rate, during the years 1933, 1934 and 1935, in our sample was 27.7 as can be seen from table No. 5 of Chapter II. The death-rate in India, during the

[1] Gyan Chand—*India's Teeming Millions*, p. 99.
[2] *Census of India*, 1931, Vol. VIII, Bombay Presidency, Part I, p. 91.

period 1931-35 was 24 and in the Bombay Presidency in the year 1921-31 was 26.8.[1] So, it can be seen that both the birth-rate and the death-rate are comparatively high in our sample and that may be the reason why there is no proportional increase in the rate of the growth of the population. The high birth-rate and the high death-rate indicate that there is a great percentage of human waste. This may be due to poverty, climatic conditions and early marriages. The birth-rate is always influenced by two factors viz, (i) fertility and (ii) age and sex composition. We have seen that the age and sex composition is not abnormal in our sample as it is in the Western Countries and naturally the high birth-rate is due to the high fertility of our women. This can be checked under the existing circumstances, by only one method and this is by avoiding early marriages. The death-rate in our sample is very high owing to high infant mortality. The infant mortality rate in our sample is 170, as can be seen from table No. 8 of Chapter II, while it is 166.08 in the Bombay Presidency.[2] Thus, the death-rate can be checked by adequate medical facilities in the villages. In conclusion, it can be said that the rural population of our Taluka is not at all increasing very rapidly in spite of high birth-rate, as the death-rate also is comparatively high, especially in the hilly parts of the Taluka.

[1] Gyan Chand—*India's Teeming Millions*, p. 99.
[2] *ibid.*, p. 105.

APPENDIX No. 1

(showing total number of persons with their crude ages and civil condition in the A group)

Age	Males				Females				Total			
	S.	M.	W.	T.	S.	M.	W.	T	S.	M.	W.	T.
1	25	...	...	25	24	...	...	24	49	...	...	49
2	14	...	...	14	23	...	...	23	37	...	...	37
3	22	...	...	22	19	...	...	19	41	...	...	41
4	24	...	...	24	18	...	...	18	42	...	...	42
5	15	...	...	15	13	...	...	13	28	...	...	28
6	18	...	...	18	16	...	...	16	34	...	...	34
7	20	...	...	20	18	...	...	18	38	...	...	38
8	14	...	...	14	26	3	...	29	40	3	...	43
9	8	...	...	8	12	2	...	14	20	2	...	22
10	16	1	...	17	13	2	...	15	29	3	...	32
11	8	...	...	8	6	6	...	12	14	6	...	20
12	10	1	...	11	12	...	...	12	22	1	...	23
13	4	...	...	4	5	1	...	6	9	1	...	10
14	9	...	...	9	1	7	...	8	10	7	...	17
15	6	3	...	9	3	2	...	5	9	5	...	14
16	8	1	...	9	1	13	...	14	9	14	...	23
17	4	...	...	4	3	3	...	6	7	3	...	10
18	16	4	...	20	...	21	...	21	16	25	...	41
19	...	...	...	...	...	1	...	1	...	1	...	1
20	6	7	...	13	...	21	...	21	6	28	...	34
21	...	...	...	...	...	1	...	1	...	1	...	1
22	5	13	...	18	...	15	...	15	5	28	...	33
23	...	5	1	6	...	5	...	5	...	10	1	11
24	...	1	1	2	...	3	...	3	...	4	1	5
25	1	16	...	17	...	19	1	20	1	35	1	37
26	...	6	...	6	...	5	...	5	...	11	...	11
27	1	6	...	7	...	...	...	...	1	6	...	7
28	...	13	...	13	...	6	1	7	...	19	1	20
29	...	...	...	...	...	...	...	...	...	...	...	...
30	...	17	...	17	...	26	4	30	...	43	4	47
31	...	...	...	...	...	1	...	1	...	1	...	1
32	...	14	...	14	...	6	1	7	...	20	1	21
33	...	...	...	...	...	1	...	1	...	1	...	1
34	...	2	...	2	...	2	1	3	...	4	1	5
c/fd.	254	110	2	366	213	172	8	393	467	282	10	759

APPENDIX No. 1—(*Contd.*)

Age	Males				Females				Total			
	S.	M.	W.	T.	S.	M.	W.	T.	S.	M.	W.	T.
b/fd.	254	110	2	366	213	172	8	393	467	282	10	759
35	...	10	...	10	...	16	3	19	...	26	3	29
36	...	...	...	...	...	...	...	...	...	...	...	...
37	...	...	...	...	...	...	...	...	...	...	...	...
38	...	4	...	4	...	2	...	2	...	6	...	6
39	...	...	...	...	...	...	...	...	...	...	...	...
40	...	17	1	18	...	18	2	20	...	35	3	38
41	...	...	...	...	...	...	...	...	...	...	...	...
42	...	3	...	3	...	...	...	...	...	3	...	3
43	...	...	...	...	...	...	...	...	...	...	...	...
44	...	...	...	...	...	...	...	...	...	...	...	...
45	...	16	...	16	...	9	1	10	...	25	1	26
46	...	...	...	...	...	...	...	...	...	...	...	...
47	...	...	...	...	...	...	...	...	...	...	...	...
48	...	2	1	3	...	...	...	...	...	2	1	3
49	...	...	...	...	...	...	...	...	...	...	...	...
50	...	15	...	15	...	7	5	12	...	22	5	27
51	...	...	...	...	...	...	...	...	...	...	...	...
52	...	3	1	4	...	1	...	1	...	4	1	5
53	...	...	...	...	...	...	...	...	...	...	...	...
54	...	...	...	...	...	...	...	...	...	...	...	...
55	...	10	...	10	...	4	5	9	...	14	5	19
56 & above	...	18	2	20	...	1	16	17	...	19	18	37
Total	254	208	7	469	213	230	40	483	467	438	47	952

N.B.—S. = Single; M. = Married; W. = Widowed; T. = Total.

APPENDIX No. 2

(showing total number of persons with their crude ages and civil condition in the B group)

Age	Males				Females				Total			
	S.	M.	W.	T.	S.	M.	W.	T.	S.	M.	W.	T.
1	63	...	...	63	73	...	...	73	136	...	...	136
2	86	...	...	86	58	...	...	58	144	...	...	144
3	81	...	...	81	63	1	...	64	144	1	...	145
4	67	...	...	67	92	...	...	92	159	...	...	159
5	43	...	...	43	47	1	...	48	90	1	...	91
6	58	1	...	59	69	...	...	69	127	1	...	128
7	37	...	...	37	43	1	...	44	80	1	...	81
8	80	...	...	80	69	1	...	70	149	1	...	150
9	19	1	...	20	27	1	...	28	46	2	...	48
10	76	...	...	76	35	10	...	45	111	10	...	121
11	10	...	...	10	11	8	...	19	21	8	...	29
12	58	4	...	62	18	20	...	38	76	24	...	100
13	14	...	...	14	4	12	...	16	18	12	...	30
14	15	2	...	17	3	27	...	30	18	29	...	47
15	30	1	...	31	1	32	...	33	31	33	...	64
16	23	4	...	27	4	25	...	29	27	29	...	56
17	5	...	...	5	12	...	...	12	17	...	...	17
18	38	23	...	61	5	61	...	66	43	84	...	127
19	3	...	...	3	4	...	...	4	7	...	...	7
20	27	31	1	59	1	71	1	73	28	102	2	132
21	3	...	...	3	...	10	...	10	3	10	...	13
22	14	49	...	63	...	53	1	54	14	102	1	117
23	2	7	...	9	...	8	...	8	2	15	...	17
24	2	10	...	12	...	7	...	7	2	17	...	19
25	5	88	...	93	...	89	6	95	5	177	6	188
26	...	21	...	21	...	11	1	12	...	32	1	33
27	...	2	...	2	...	1	...	1	...	3	...	3
28	1	23	1	25	...	34	...	34	1	57	1	59
29	...	1	2	3	...	2	...	2	...	3	2	5
30	4	81	...	85	...	87	9	96	4	168	9	181
31	...	...	...	...	...	...	...	...	...	...	...	...
32	...	34	...	34	...	25	7	32	...	59	7	66
33	...	3	...	3	...	...	...	...	...	3	...	3
34	...	3	...	3	...	1	...	1	...	4	...	4
c/fd.	864	389	4	1257	639	599	25	1263	1503	988	29	2520

APPENDIX No. 2—(*Contd.*)

Age	Males				Females				Total			
	S.	M.	W.	T.	S.	M.	W.	T.	S.	M.	W.	T.
b/fd.	864	389	4	1257	639	599	25	1263	1503	988	29	2520
35	...	99	4	103	...	58	13	71	...	157	17	174
36	...	17	...	17	...	2	2	4	...	19	2	21
37	...	...	...	...	...	...	...	...	...	...	...	...
38	...	8	...	8	...	4	2	6	...	12	2	14
39	...	...	...	...	...	1	...	1	...	1	...	1
40	...	61	3	64	...	52	22	74	...	113	25	138
41	...	...	...	...	...	1	1	2	...	1	1	2
42	...	10	...	10	...	6	2	8	...	16	2	18
43	...	...	...	...	...	2	2	4	...	2	2	4
44	...	2	1	3	...	...	...	...	...	2	1	3
45	...	41	5	46	...	21	16	37	...	62	21	83
46	...	...	...	...	...	...	1	1	...	...	1	1
47	...	...	1	1	...	1	1	2	...	1	2	3
48	...	8	1	9	...	5	1	6	...	13	2	15
49	...	...	...	...	...	...	...	...	...	...	...	...
50	...	33	5	38	...	22	51	73	...	55	56	111
51	...	...	...	...	..	...	...	...	...	...	...	...
52	...	5	...	5	...	3	3	6	...	8	3	11
53	...	...	...	...	...	...	...	...	...	...	...	...
54	...	...	...	...	...	...	2	2	...	...	2	2
55	...	21	4	25	...	7	29	36	...	28	33	61
56 & above	...	53	14	67	...	4	85	89	...	57	99	156
Total	864	747	42	1653	639	788	258	1685	1503	1535	300	3338

S. = Single; M. = Married; W. = Widowed; T. = Total.

APPENDIX No. 3

(showing total number of persons with their crude ages and civil condition in the C group)

Age	Males				Females				Total			
	S.	M.	W.	T.	S.	M.	W.	T.	S.	M.	W.	T.
1	24	...	...	24	17	...	...	17	41	...	...	41
2	16	...	...	16	17	...	...	17	33	...	...	33
3	15	...	...	15	17	...	...	17	32	...	...	32
4	30	...	...	30	16	...	...	16	46	...	...	46
5	18	...	...	18	6	...	...	6	24	...	...	24
6	14	...	...	14	30	...	...	30	44	...	...	44
7	16	...	...	16	22	1	...	23	38	1	...	39
8	25	...	...	25	12	...	...	12	37	...	...	37
9	11	...	...	11	5	3	...	8	16	3	...	19
10	15	1	...	16	19	7	...	26	34	8	...	42
11	4	...	...	4	4	1	...	5	8	1	...	9
12	20	...	...	20	5	2	...	7	25	2	...	27
13	3	...	...	3	2	2	...	4	5	2	...	7
14	2	...	...	2	2	4	...	6	4	4	...	8
15	12	...	...	12	2	6	...	8	14	6	...	20
16	10	1	...	11	...	9	...	9	10	10	...	20
17	...	...	...	...	...	1	...	1	...	1	...	1
18	10	7	...	17	...	11	...	11	10	18	...	28
19	1	...	...	1	...	2	...	2	1	2	...	3
20	4	5	...	9	...	20	...	20	4	25	...	29
21	...	...	...	...	...	...	...	...	...	...	...	...
22	4	5	...	9	...	16	1	17	4	21	1	26
23	...	...	...	...	...	...	...	...	...	...	...	...
24	...	...	...	...	...	...	1	1	...	...	1	1
25	5	25	...	30	...	26	1	27	5	51	1	57
26	1	6	...	7	...	2	1	3	1	8	1	10
27	1	1	...	2	...	1	...	1	1	2	...	3
28	...	7	1	8	...	4	1	5	...	11	2	13
29	...	...	...	...	...	...	...	...	...	...	...	...
30	...	16	2	18	...	34	2	36	...	50	4	54
31	...	...	...	...	...	...	...	...	...	...	...	...
32	...	8	...	8	...	8	...	8	...	16	...	16
33	...	...	...	...	...	...	...	...	...	...	...	...
34	...	...	...	...	...	1	...	1	...	1	...	1
c/fd.	261	82	3	346	176	161	7	344	437	243	10	690

APPENDIX No. 3—(*Contd.*)

Age	Males				Females				Total			
	S.	M.	W.	T.	S.	M.	W.	T.	S.	M.	W.	T.
b/fd.	261	82	3	346	176	161	7	344	437	243	10	690
35	...	31	1	32	...	20	4	24	...	51	5	56
36	...	6	...	6	...	...	1	1	...	6	1	7
37	...	...	...	...	...	...	...	...	...	...	...	...
38	...	4	...	4	...	1	1	2	...	5	1	6
39	...	...	...	...	...	...	...	...	...	...	...	...
40	...	27	2	29	...	20	14	34	...	47	16	63
41	...	...	...	...	...	...	...	...	...	...	...	...
42	...	2	...	2	...	1	...	1	...	3	...	3
43	...	...	...	...	...	...	...	...	...	...	...	...
44	...	...	...	...	...	1	...	1	...	1	...	1
45	...	20	...	20	...	7	7	14	...	27	7	34
46	...	...	...	...	...	...	...	...	...	...	...	...
47	...	1	...	1	...	...	...	...	...	1	...	1
48	...	...	...	...	...	...	1	1	...	...	1	1
49	...	...	...	...	...	...	...	...	...	...	...	...
50	...	11	...	11	...	7	...	14	...	18	7	25
51	...	...	...	...	...	...	...	...	...	...	...	...
52	...	2	...	2	...	...	...	...	...	2	...	2
53	...	...	...	...	...	...	...	...	...	...	...	...
54	...	...	...	...	...	...	...	...	...	...	...	...
55	...	9	3	12	...	...	6	6	...	9	9	18
56 & above	...	17	5	22	...	2	26	28	...	19	31	50
Total	261	212	14	487	176	220	74	470	437	432	88	957

S. = Single; M. = Married; W. = Widowed; T. = Total.

APPENDIX No. 4

(showing total number of persons with their crude ages and civil condition in the whole sample)

Age	Males				Females				Total			
	S.	M.	W.	T.	S.	M.	W.	T.	S.	M.	W.	T.
1	112	...	...	112	114	...	...	114	226	...	...	226
2	116	...	...	116	98	...	...	98	214	...	...	214
3	118	...	...	118	99	1	...	100	217	1	...	218
4	121	...	...	121	126	...	...	126	247	...	...	247
5	76	...	...	76	66	1	...	67	142	1	...	143
6	90	1	...	91	115	...	...	115	205	1	...	206
7	73	...	...	73	83	2	...	85	156	2	...	158
8	119	...	...	119	107	4	...	111	226	4	...	230
9	38	1	...	39	44	6	...	50	82	7	...	89
10	107	2	...	109	67	19	...	86	174	21	...	195
11	22	...	...	22	21	15	...	30	43	15	...	58
12	88	5	...	93	35	22	...	57	123	27	...	150
13	21	...	...	21	11	15	...	26	32	15	...	47
14	26	2	...	28	6	38	...	44	32	40	...	72
15	48	4	...	52	6	40	...	46	54	44	...	98
16	41	6	...	47	5	47	...	52	46	53	...	99
17	9	...	...	9	15	4	...	19	24	4	...	28
18	64	34	...	98	5	93	...	98	69	127	...	196
19	4	...	...	4	4	3	...	7	8	3	...	11
20	37	43	1	81	1	112	1	114	38	155	2	195
21	3	...	...	3	...	11	...	11	3	11	...	14
22	23	67	...	90	...	84	2	86	23	151	2	176
23	2	12	1	15	...	13	...	13	2	25	1	28
24	2	11	1	14	...	10	1	11	2	21	2	25
25	11	129	...	140	...	134	8	142	11	263	8	282
26	1	33	...	34	...	18	2	20	1	51	2	54
27	2	9	...	11	...	2	...	2	2	11	...	13
28	1	43	2	46	...	44	2	46	1	87	4	92
29	...	1	2	3	...	2	...	2	...	3	2	5
30	4	114	2	120	...	147	15	162	4	261	17	282
31	...	...	...	...	...	1	...	1	...	1	...	1
32	...	56	...	56	...	39	8	47	...	95	8	103
33	...	3	...	3	...	1	...	1	...	4	...	4
34	...	5	...	5	...	4	1	5	...	9	1	10
c/fd.	1379	581	9	1969	1028	932	40	2000	2407	1513	49	3969

APPENDIX No. 4—(*Contd.*)

Age	Males				Females				Total			
	S.	M.	W.	T.	S.	M.	W.	T.	S.	M.	W.	T.
b/fd.	1379	581	9	1969	1028	932	40	2000	2407	1513	49	3969
35	...	140	5	145	...	94	20	114	...	234	25	259
36	...	23	...	23	...	2	3	5	...	25	3	28
37	...	...	...	...	...	...	...	...	...	..	...	...
38	...	16	...	16	...	7	3	10	...	23	3	26
39	...	...	...	...	...	1	...	1	...	1	...	1
40	...	105	6	111	...	90	38	128	...	195	44	239
41	...	...	...	...	...	1	1	2	...	1	1	2
42	...	15	...	15	...	7	2	9	...	22	2	24
43	...	...	...	...	...	2	2	4	...	2	2	4
44	...	2	1	3	...	1	...	1	...	3	1	4
45	...	77	5	82	...	37	24	61	...	114	29	143
46	...	...	...	...	...	...	1	1	...	...	1	1
47	...	1	1	2	...	1	1	2	...	2	2	4
48	...	10	2	12	...	5	2	7	...	15	4	19
49	...	...	...	...	...	...	...	...	...	...	...	...
50	...	59	5	64	...	36	63	99	...	95	68	163
51	...	...	...	...	...	...	...	...	...	...	...	...
52	...	10	1	11	...	4	3	7	...	14	4	18
53	...	...	...	...	...	...	...	...	...	...	...	...
54	...	...	...	...	...	...	2	2	...	...	2	2
55	...	40	7	47	...	11	40	51	..	51	47	98
56 & above	...	88	21	109	...	7	127	134	...	95	148	243
Total	1379	1167	63	2609	1028	1238	372	2638	2407	2405	435	5247

N.B. S=Single; M=Married; W=Widowed; T=Total.

APPENDIX No. 5

(showing distribution of population according to civil conditions in the age-group 15–49 after re-arranging the crude ages according to the Appendix No. A)

A GROUP

Civil Condition	Age-Group							
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	Total
Males								
Single ...	27	16	1	...	...	...	...	44
Married ...	17	26	36	31	18	20	18	166
Widowed ...	1	1	...	1	1	...	1	5
Total ...	45	43	37	32	19	20	19	215
Females								
Single ...	4	1	...	...	...	...	...	5
Married ...	45	47	33	29	19	15	8	196
Widowed ...	...	1	3	5	1	2	3	15
Total ...	49	49	36	34	20	17	11	216

B GROUP

Civil Condition	Age-Group							
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	Total
Males								
Single ...	80	50	6	2	...	...	...	138
Married ...	58	115	131	132	99	61	44	640
Widowed ...	1	...	2	3	2	4	7	19
Total ...	139	165	139	137	101	65	51	797
Females								
Single ...	15	11	...	...	...	...	...	26
Married ...	144	155	128	105	63	44	30	669
Widowed ...	1	...	5	13	22	23	36	100
Total ...	160	166	133	118	85	67	66	795

APPENDIX No. 5—(*Contd.*)

C GROUP

Civil Condition	Age-Group							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Males								
Single ...	22	12	4	...	...	...	...	38
Married ...	9	24	31	30	25	31	17	157
Widowed ...	0	...	2	2	1	1	...	6
Total ...	31	36	37	32	26	22	17	201
Females								
Single ...	2	...	...	...	...	...	...	2
Married ...	33	39	38	34	21	15	7	187
Widowed ...	1	3	3	4	10	11	8	40
Total ...	36	42	41	38	31	26	15	229

WHOLE SAMPLE

Civil Condition	Age-Group							
	15-19	20-34	25-29	30-34	35-39	40-44	45-49	Total
Males								
Single ...	129	78	11	2	...	...	...	220
Married ...	84	165	198	193	142	102	79	963
Widowed ...	2	1	4	6	4	5	8	30
Total ...	215	244	213	201	146	107	87	1203
Females								
Single ...	21	12	...	...	...	...	...	33
Married ...	222	241	199	168	103	74	45	1052
Widowed ...	2	4	11	22	33	36	46	154
Total ...	245	257	210	190	136	110	92	1240

APPENDIX No. 6

(showing the number of families with total number of children in each Economic group)

Economic Groups	Number of families having children															Total families	Total Children			Average No. of children per family	Percentage of females
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14		M.	F.	T.		
A ...	1	5	9	7	13	19	5	6	3	6	3	1	1	1	2	82	209	227	436	5.3	52.0
B ...	57	78	82	101	57	50	31	15	3	2	2	3	...	...	...	481	715	694	1409	2.9	49.3
C ...	35	49	45	30	22	9	4	2	1	...	...	...	...	...	...	197	214	194	408	2.1	47.6
All ...	93	132	136	138	92	78	40	23	7	8	5	4	1	1	2	760	1138	1119	2253	3.0	49.5

N.B. M = Males; F = Females; T = Total.

APPENDIX No. 7

(showing total number of families having total members of the household)

Economic Groups	Number of families having total members of the household																								Number of families	Number of members
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	26	27	33		
A ...	...	...	2	4	1	6	6	4	10	11	7	2	3	2	4	6	4	3	1	...	2	...	1	2	...	1	82	952
B ...	6	16	39	51	64	65	58	53	43	22	20	13	8	9	2	5	4	...	1	...	...	...	1	...	...	...	481	3338
C ...	8	20	31	35	35	25	19	12	6	3	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	197	957
All ...	14	36	72	90	100	97	83	69	59	36	27	16	13	11	6	11	8	3	2	...	2	...	2	2	...	1	760	5247

APPENDIX No. 8

(showing number of marriages contracted during the last thirty years)

Economic Groups	Wife's age at marriage	Number of marriages that had taken place during the last thirty years						
		0-4	5-9	10-14	15-19	20-24	25-29	Total
A	1-5	1	1	...	...	1	3	6
	6-10	10	6	10	5	12	29	72
	11-13	10	22	22	16	3	7	80
	14 and above	7	11	3	2	...	1	24
Total ...		28	40	35	23	16	40	182
B	1-5	2	3	5	3	1	3	17
	6-10	18	30	34	28	50	115	275
	11-13	66	81	85	65	15	19	331
	14 and above	28	19	4	4	3	...	58
Total ...		114	133	128	100	69	137	681
C	1-5	...	...	...	1	...	...	1
	6-10	11	6	4	9	13	28	71
	11-13	13	22	20	19	15	10	99
	14 and above	4	7	1	1	3	...	16
Total ...		28	35	25	30	31	38	187
All	1-5	3	4	5	4	2	6	24
	6-10	39	42	48	42	75	172	418
	11-13	89	125	127	100	33	36	510
	14 and above	39	37	8	7	6	1	98
Total ...		170	208	188	153	116	215	1050

APPENDIX No. A

(Correction of Ages)

The ages that are reported at the time of the inquiry are the crude ages, there being a possibility of errors, either intentional or unintentional and they are to be carefully corrected and graduated before they are of any value for the deduction of birth and death rates or for any other demographic purposes.

The principal sources of error are of two kinds, namely (*a*) minor errors of short range, unbiassed in character and (*b*) major errors of a biassed nature and wide range that produce considerable distortion of the age curve. But it must be remembered that in the survey work of this kind, there is the least possibility of having the major errors, as it is carried out by personal investigations and not by any secondary agency.

Minor errors are attributable mainly to the inaccuracy of knowledge or judgment. Many people are so indifferent as regards their age that, when questioned, they return round numbers which are preliminarily the nearest decennial ages and secondarily the nearest quinquennial ages. The following table computed from the Appendix No. 4 shows the magnitude of concentrations at ages ending in 0 and 5 digits, in the whole sample.

TABLE No. 1

(*showing the distribution of the population of the whole sample, according to the digit of age in the unit's place*)

Whole sample	Digits										Total
	0	1	2	3	4	5	6	7	8	9	
Persons	1,074	301	685	301	360	1,023	388	203	563	106	5,004
Order of concentration of digits	1	8	3	7	6	2	5	9	4	10	

Out of the total population of 5,247 there are 5,004 persons, whose ages range from 1 to 55 years and the above table is prepared according to the ages that are recorded at the time of inquiry. It can be seen that ages ending with the digits 0, 5 and 2 prove centres of attraction. The magnitude of the plumpings at the digit 0 is very great. The next popular digit is 5. Next in rank in the order of preference comes

the digit 2, followed by 8. The other digits are the definite centres of repulsion as in everyone of them the actual numbers returned are less, in some considerably less, than the expected or graduated numbers.

In preparing the age-groups the effect of minor errors in the age returns should be, as far as possible, minimised. In the Actuarial report of the Census of India, 1931, seven different methods of grouping have been mentioned for this purpose, out of which the Ternary and Septenary method is utilised in this work, in preparing the age-groups of 15-49 of both males and females in the three Economic groups. By this method the crude ages are rearranged into alternate triennial and septennial groups which are finally resolved into quinquennial divisions.

CHAPTER IV

THE PROBLEMS OF HOLDINGS

The total area of the Bhiwandi Taluka is 169731 acres and 29 gunthas and the following table shows the different divisions of land in the Taluka.

TABLE No. 1
(showing different divisions of land)

Different divisions of land	A.	G.
1. Occupied cultivated land ...	78,942	6
2. Occupied waste land ...	834	20
3. Government waste land ...	1,732	30
4. Grazing land ...	8,080	13
5. Other types of land including Gavathan, etc. ...	80,142	...
Total ...	1,69,731	29

N.B.—A. = Acres; G. = Gunthas.

The net area under cultivation is 78,942 acres and 6 gunthas. The total land Revenue is Rs. 2,95,664-10-4, giving an average of about Rs. 4|- per acre. But it varies with different kinds of land. The Taluka is divided into three groups for the purpose of revenue collections according to the Second Revision Settlement. The first group consists of 75 villages, the second of 83 and the third of 42[1]. The maximum rate for *Kharip*[2] land in the first group is Rs. 8-8-0, in the second Rs. 7-4-0 and in the third Rs. 5-12-0. For the *Varkas*[3] land, the maximum rate in the first group is Rs. 3-0-0, in the second Rs. 2-4-0 and in the third Rs. 1-8-0. There are three kinds of crops in the Taluka, viz., the rice crop, the dry crop and the garden crop. The area under rice cultivation is about 41,132 acres and the total assessment on this is about Rs. 2,43,885|- (i.e. more than 80 per cent of the total land revenue),

[1] Out of the remaining 5 villages, 3 are *Devasthan* villages and 2 are *Inam* villages.

[2] *Kharip* land is cultivated land wherein paddy is grown.

[3] *Varkas* land is uncultivated land wherein grass and dry crops are grown.

thus giving an average assessment of Rs. 5-14-10 per acre. The dry crops such as *Vari, Nagali,* etc., are grown in the *Varkas* land. The total area under the dry crop cultivation is about 42,994 acres and the total assessment is about Rs. 32,644|-, giving an average assessment of Rs. 0-12-1 per acre. The area under garden crops is very insignificant, being only 34 acres. The total assessment on the garden crops is Rs. 102|-, giving an average of three Rupees per acre.

From the above table it can be seen that the occupied cultivated land is 79,776 acres and 26 gunthas out of which, the occupied waste land is 834 acres and 20 gunthas. Leaving small pieces of land, the total area of the occupied waste land is about 759 acres and 31½ gunthas in 71 villages, out of which 440 acres and 28¾ gunthas in 51 villages can be brought immediately under cultivation. The following table gives the details.

TABLE No. 2

(showing pieces of waste land that can be brought under cultivation)

Area in lots	No. of villages where the waste land lies	Total area of the assessed waste land		Total area which can be brought immediately under cultivation		No. of villages in which such land lies
		A.	G.	A.	G.	
Upto 2 acres	17	24	11½	18	15½	14
2-3 ,,	16	40	23	20	8	8
3-4 ,,	7	24	35½	18	21½	5
4-5 ,,	5	21	32¾	21	32¾	5
5-10 ,,	9	60	17¾	46	16	7
10-20 ,,	5	70	26½	42	12¼	3
More than 20 acres	12	517	4¾	273	2¾	9
Total ...	71	759	31½	440	28¾	51

N.B.—A. = Acres; G. = Gunthas.

From the above table it can be seen that out of 71 villages in 51, 440 acres and 28¾ gunthas can be immediately brought under cultivation. All these plots are more than an acre in size. Out of the total area, nearly 64.3 per cent is constituted of plots more than 20 acres in area ; nearly 9.5 per cent is

constituted of plots having an area of 10-20 acres ; and about 10.2 per cent is constituted of plots having an area of 5-10 acres. Thus, it can be easily seen that about 84 per cent of this land is constituted of plots of more than five acres of land, which can be brought immediately under cultivation.

Besides this land, there are 1574 acres and $32\frac{3}{4}$ gunthas of unassessed waste land in 32 villages, out of which 53 acres and 28 gunthas in 9 villages can be immediately brought under cultivation.

In the Taluka the system of Land Revenue Settlement is temporary and the tenure is *Ryotwari*. The assessment is fixed on individual fields and not on a village as a whole or on the village community or on the estate of a Landholder.

This system is extremely complicated, but it is based on the principle that the relative productive power of all the fields of the taluka is fixed by an examination of the physical characteristics of different parts of the field, the constitution, nature and depth of the soil, the admixture of sand, gravel and lime and the configuration and slope of the surface, as these affect the productivity, under the local climatic conditions and type of agriculture. In each village allowances are made for special advantages from water resources and the distance of the fields from the village.

The History of the Land Revenue System in the *Ryotwari* villages of the taluka dates from 1860, when the Original Survey Settlement was carried out. The first Survey Settlement was taken in the year 1895 and the second Survey Settlement was carried out in the year 1925. The following table shows the average rates for different crops fixed by these three Survey Settlements.

TABLE No. 3

(*showing average land Revenue per acre*)

Kinds of crops	Original Survey	First Survey	Second Survey
1. Rice ...	3-10—3	4—7—7	5-14-10
2. Dry crop ...	0—4-11	0—9—0	0-12—1
3. Garden ...	1—5—4	2—4—3	3—0—0

From the above table it can be seen that the rates under the second Survey Settlement are, on an average, 1.8 times higher than those under the Original Survey Settlement. In the case of rice, the increase is to the extent of 1.7 times and in the case of the dry crops, it is nearly 2.4 times the original rates.

The *Ryotwari* tenure has the following four principal features :—

(i) State proprietorship of land,
(ii) Field-to-field assessment,
(iii) Individual liability of landholders to pay the assessment, and
(iv) Periodic revision of Survey Settlement.

The theory, that the State is the owner of all lands, including waste lands, is introduced by the British Government. Individual ownership of land which has been recognised since the time of Manu is not upheld by them.[1]

The holder of land is now reduced to a position of a mere occupant of land. He has the right to use, to make improvements for agricultural purposes, to transfer the occupancy and to relinquish the holding. Again, he has the right of pre-emption in relation to adjacent land and the right to use trees (except those which are reserved by the Government) on his land, for his purposes. He holds the holdings, so long as he pays the land-revenue. The revenue which he pays is regarded as rent and not as a tax as the latter implies the private ownership of land.

The assessment for any year is a charge upon that year's crop and the arrears for previous years a first charge on the holding, or any part thereof. The assessments are generally to be paid by instalments and within the time fixed by the Government.

Assessment is made with reference to each and every plot of land or fragment of land or Survey Number, according to a standard known as Anewari which is fixed according to the relative productive capacities per acre.

[1] *Report of the Indian Taxation Inquiry Committee*, 1924, Vol. I, p. 62.

The third general feature of the system of land revenue is that, the assessment on a holding, is directly fixed on its holder and every holder of land, is individually responsible for the payment of his land revenue to the Government. The main idea of the system is to bring the cultivators in direct relation with the Government for revenue purposes, as against the land-tax system in which the Government deals with middlemen. This ensures justice and safety to the farmers.

The fourth general feature of the system is the periodic revision of Survey Settlement. The assessment is fixed for a period which extends to thirty years in the case of lands used for agricultural purposes, and to ninety years in the case of all other kinds of lands. Thus, since the Original Survey Settlement in 1860, Revision Settlements in the Taluka were made in 1895 and 1925.

It is observed above that the net area under cultivation is 78,942 acres and 6 gunthas. It is possessed by 9,584 *Khatedars*, giving an average holding of 8.2 acres. The following table shows the average area per holding in the Taluka at different periods :—

TABLE No. 4

(*showing average holdings*)

Holdings	1886	1903	1921	1937
Under 5 acres	3,731	6,416	10,458	6,638
5-25 „	3,041	3,205	3,404	2,426
25-100 „	694	556	206	438
100-500 „	39	41	30	79
over 500 „	...	...	...	3
Total ...	7,505	10,218	14,098	9,584
Percentages				
Under 5 acres	49.7	62.6	74.2	69.1
5-25 „	40.5	31.6	24.1	25.5
25-100 „	9.3	5.4	1.4	4.5
100-500 „	.5	.4	.3	.9
Over 500 „	...	...	...	negligible
Total ...	100.0	100.0	100.0	100.0

From the above table it can be seen that the holdings under 5 acres of land were 49.7 per cent of the total holdings in the year 1886; 62.6 per cent in 1903; 74.2 per cent in 1921 and 69.1 per cent in 1937. This shows that there has been a rapid process of uneconomic holdings during the last forty years. The holdings of 5-25 acres have on the contrary reduced from 40.5 per cent in the year 1886, to 25.5 per cent in the year 1937. The holdings of 25-100 acres are reduced from 9.3 per cent in the year 1886 to 4.5 per cent in the year 1937. But the holdings of 100-500 acres have increased from .5 per cent in the year 1886 to .9 per cent, in the year 1937 and the holdings of over 500 acres were not prevalent till the year 1921. It is only in the year 1937 that there were three *Khatedars* holding more than 500 acres each, showing that there is a tendency in recent years of the lands passing from the hands of the agriculturists into the hands of the *Sowcars*.

We have seen that there were 9,584 *Khatedars* in the year 1937. There are three different kinds of *Khatedars* (i) those cultivating lands with their own hands, whether they employ additional labour to assist or not; (ii) those not cultivating personally, but supervising hired labourers, though, sometimes, they may take some part in some of the operations and (iii) those letting their lands to tenants and receiving rent. The following table gives the details :—

TABLE No. 5

(*showing different kinds of Khatedars*)

Holdings	First type	Second type	Third type	Total
Under 5 acres	6,034	94	510	6,638
5-25 ,,	1,788	69	569	2,426
25-100 ,,	235	21	182	438
100-500 ,,	26	4	49	79
over 500 ,,	...	...	3	3
Total ..	8,083	188	1,313	9,584

Thus, we find that in the first type, there are 8,083 *Khatedars*, out of the total 9,584 *Khatedars*, giving roughly

84.0 per cent of the total *Khatedars*. This shows that a vast majority of them cultivate their own lands. In the second type there are 1,313 *Khatedars*, that is nearly 14 per cent who do not personally cultivate their lands but carry out the cultivation work under their direct supervision. In the third type there are 1,313 *Khatedars* that is nearly 14 per cent who hire out their lands to the tenants, receiving only the rent. This category includes the absentee-landlords.

Now, let us turn to the study of the 760 families under survey. The following table shows the analysis of their holdings, according to the three Economic groups.

[*For Table see next page.*]

From the above table it can be seen that 548 families of the three Economic groups hold a total land of 3,871 acres and $10\frac{3}{4}$ gunthas, giving an average holding of 7.0 acres per family. But in the A group, the average holding per family is 23 acres, in B it is 3.8 acres and in C it is about 0.7 acre.

In the A group there are 49 families, i.e. roughly speaking 59.8 per cent of the total families possessing holdings of land upto 20 acres and out of the remaining 33 families, 21 families, i.e. nearly 25 per cent of all the families have holdings of 20-30 acres and the remaining 12 families, i.e. nearly 15.2 per cent possess lands more than 30 acres in area. In the B group, out of 481 families, 96 families, that is nearly 19.9 per cent of the total families of the group have no land. 251 families, that is nearly 52.2 per cent possess holdings upto 5 acres, 103 families, i.e. about 21.4 per cent possess holdings of 5-10 acres and the remaining 31 families that is roughly speaking 6.5 per cent have holdings of 10-20 acres. In the C group, out of 197 families, 116 families that is nearly 58.8 per cent of the total families of the group have no land and the remaining 81 families, that is 41.2 per cent have holdings upto 5 acres.

The average holdings per family in the different divisions of the three Economic groups as mentioned in the above table are as follows. In the third division of the A group, the

TABLE No. 6

(showing the size of holdings of the families under survey)

Divisions	Size of Holdings	A			B			C			All		
		Total land		No. of families	Total land		No. of families	Total land		No. of families	Total land		No. of families
		A.	G.		A.	G.		A.	G.		A.	G.	
I.	No land	...	...	...	...	...	96	...	...	116	...	...	212
II.	Upto 5 acres	...	...	...	736	30	251	144	2½	81	880	32½	332
III.	5-10 „	116	19½	15	683	21	103	...	...	...	800	½	118
IV.	10-20 „	534	31	34	408	11½	31	...	...	...	943	2½	65
V.	20-30 „	528	30¼	21	...	...	...	...	...	...	528	30¼	21
VI.	30-40 „	131	...	4	...	...	...	...	...	...	131	...	4
VII.	40-50 „	186	25	4	...	...	...	...	...	...	186	25	4
VIII.	over 50 „	401	...	4	...	...	...	...	...	...	401	...	4
	Total	1,898	25¾	82	1,828	22½	481	144	2½	197	3871	10¾	760

N.B.—A. = Acres; G. = Gunthas.

average holding is 7.8 acres ; in the fourth, it is 15.7 acres ; in the fifth, it is 25.1 acres ; in the sixth, it is 32.7 acres ; in the seventh, it is 46.7 acres and in the eighth, it is 100.2 acres. In the B group, in the second division the average holding per family is 2.9 acres ; in the third it is 6.6 acres and in the fourth, it is 13.1 acres. In the C group, in the second division, which is the only division possessing land, the average holding per family is 1.8 acres.

The percentage of land possessed by each group is different from the percentage of families that each group holds with the total number of families. The following table shows the details :—

TABLE No. 7

(showing the correlation between percentage of families and percentage of land)

Economic groups	Total No. of families	Percentage of total families	Total land possessed		Percentage of the land possessed
			A.	G.	
A ...	82	10.8	1,898	25¾	49.2
B ...	481	63.3	1,828	22½	47.2
C ...	197	25.9	144	2½	3.6
All ...	760	100.0	3,871	10¾	100.0

N.B.—A. = Acres ; G. = Gunthas.

From the above table it can be seen that the A group constitutes 10.8 per cent of the total families and possesses 49.2 per cent of the total land. The B group constitutes 63.3 per cent of the total families and possesses 47.2 per cent of the total land and the C group constitutes 25.9 per cent of the total families and possesses only 3.6 per cent of the total land.

Having seen the average holding per family, in the three Economic groups, let us see how much land is cultivated by the average family in each of these three Economic groups. The following table gives the details :—

TABLE No. 8

(showing total land cultivated in the three Economic groups)

Divisions	Size of Holdings	A			B			C			All		
		Cultivating land of others	Renting land to others	Total land cultivated	Cultivating land of others	Renting land to others	Total land cultivated	Cultivating land of others	Renting land to others	Total land cultivated	Cultivating land of others	Renting land to others	Total land cultivated
		A. G.	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.
I	No lands	... ...	... ...	... ...	710-20	... ...	710-20	276-30	... ...	276-30	987-10	... ...	987-10
II	Upto 5 acres	... ...	... ...	... ...	986-30	11-33¼	1,711-26¾	90-30	25-32	209- ½	1,077-20	37- 5¼	1,920-27¼
III	5-10 „	153-20	4- 0	265-39½	176-20	56- 6	803-35	... ...	... ...	... ...	330- 0	60- 6	1,069-34½
IV	10-20 „	87- 0	46-20	575-11	30- 0	58-20	379-31½	... ...	... ...	... ...	117- 0	105- 0	955- 2½
V	20-30 „	81- 0	200- 5½	409-24¾	... ...	... ...	... ...	... ...	... ...	... ...	81- 0	200- 5½	409-24¾
VI	30-40 „	30- 0	51- 0	110- 0	... ...	... ...	... ...	... ...	... ...	... ...	30- 0	51- 0	110- 0
VII	40-50 „	18- 0	50- 0	154-25	... ...	... ...	... ...	... ...	... ...	... ...	18- 0	50- 0	154-25
VIII	Over 50 acres	... ...	283- 0	118- 0	... ...	... ...	... ...	... ...	... ...	... ...	... ...	283- 0	118- 0
	Total	369-20	634-25½	1,633-20¼	1,903-30	126-19¼	3,605-33¼	367-20	25-32	485-30½	2,640-30	786-16¾	5,725- 4

N.B.—A = Acres; G = Gunthas.

It can be noticed from the above table that 5,725 acres and 4 gunthas are cultivated by 760 families, giving an average of 7.6 acres per family. In the A group the average land under cultivation per family is 19.9 acres ; in the B group, it is 7.4 and in the C group, it is 2.4. The total land rented to others for cultivation by the A group is 634 acres and 25½ gunthas, thus giving an average of 7.7 acres per family. In the B group, it is 126-19¼, i.e. 0.3 acre per family and in the C group, it is 25 acres and 32 gunthas, i.e. 0.1 acre per family. In this group, the land is rented to others for cultivation by 10 families of the second division, only because these families possess neither implements nor bullocks and, therefore, have to give their lands to others for cultivation.

The average area cultivated from land belonging to others per family in the A group, is 4.5 acres. In the B group it is 3.9 acres and in the C group it is 1.9 acres.

But the average land cultivated by the different divisions in the three Economic groups is different. These divisions, as can be seen from the above table are prepared according to the holdings of each family. In the third division of the A group, the average land cultivated is 17.7 acres per family ; in the fourth, it is 16.9 acres and in the fifth, 19.5 acres. In the remaining divisions, the families are too few to make any averages, worthwhile.

The average land taken from others for cultivation is 10.2 acres per family in the third division of the A group ; in the fourth, it is 2.6 per family and in the fifth, it is 3.9 acres per family.

The average of land rented to others for cultivation, is negligible in the third division ; in the fourth, it is 1.4 acres per family and in the fifth, it is 9.5 acres per family.

In the B group, the average land cultivated by the first division is 7.4 acres per family, by the second, it is 7.4 acres per family, by the third 7.8 acres and by the fourth 12.3 acres per family. The average land taken from the land-lords for cultivation is 7.4 acres per family in the first division ; 3.5 acres in the second, 1.7 acres in the third, and nearly 1 acre

in the fourth. The average rented to others for cultivation is nil in the first division as this division is a landless division and in the second and third it is negligible. Only in the fourth division it is 1.9 acres per family.

In the C group the average land cultivated by the first division is 2.4 acres per family and in the second, it is 2.6 acres per family. In the first division, all the land that is cultivated, belongs to others and in the second division the average land taken for cultivation is 1.1 acres per family. The land given to others is nil in the first division and very insignificant in the second.

But the proportion per cent of the tenant families is different in the different divisions of the three Economic groups. The following table gives the details :—

TABLE No. 9

(showing proportion per cent of the tenant families having holdings)

Economic groups	Divisions								
	I	II	III	IV	V	VI	VII	VIII	Total
A ...	no fa	milies	13	16	7	2	1	...	39
B ...	92	213	56	7	no	fa mi	lies	...	468
C ...	92	50	...	no	fa	mi l	ies	...	142
All ...	184	263	69	23	7	2	1	...	649
Percentage									
A ...	...	...	86.7	47.1	33.3	negli	gible	...	47.6
B ...	95.8	85.9	52.9	22.3	...	...	...	...	97.3
C ...	79.3	61.7	...	...	...	...	...	...	72.5

It can be seen from the above table that in the A group, out of 82 families 39, i.e. nearly 47.6 per cent are tenant-families having holdings. The rest 43 families i.e. nearly 52.4 per cent are landlords. In the third division of this group, the percentage of tenant families is 86.7, in the fourth, it is 47.1 and in the fifth, it is 33.3 per cent. In the eighth, there are no

tenant-families and in the remaining divisions the families are too few to give any average view. In the B group, there are in all 468 tenant-families, i.e. nearly 97.3 per cent of the total families. In the first division, out of 96 families 92 families are tenants and the remaining four families depend upon their hereditary occupations. In the second, 213 families out of 251 families, i.e. 85.9 per cent are tenant families ; in the third, 56 families out of 103 families, i.e. 52.9 per cent are tenant-families and in the fourth, 7 families out of 31 families, i.e. 22.3 per cent are tenant-families. In the C group, out of 197 families, 142 families, that is, nearly 72.1 per cent are tenant-families cultivating of course, very insignificant pieces of lands. In the first division, the percentage of the tenant-families is 79.3. The remaining 24 families, i.e. nearly 20.7 per cent are merely agricultural labourers. In the second, out of 81 families, 50 families, i.e. nearly 61.7 per cent are tenant-families and the rest depend entirely upon agricultural labour.

The following table gives the total land rented from the landlords by these tenant-families :—

TABLE No. 10

(showing total area cultivated by the tenant families excluding their own lands)

Economic groups	Divisions								
	I	II	III	IV	V	VI	VII	VIII	Total
	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.
A ...	no families		153-20	87-0	81-0	30-0	18-0	...	369-20
B ...	710-20	986-30	176-20	30-0	no families				1,903-30
C ...	276-30	90-30	no families				...	...	367-20
Average per family									
A ...	no families		11.8	5.4	negligible families		...	...	9.5
B ...	7.7	4.6	3.2	negligible families					4.1
C ...	3.0	1.8	...				...	...	2.6

N.B.—A. = Acres; G. = Gunthas

From the above it can be seen that in the A group, 369 acres and 20 gunthas are cultivated by 39 tenant-families, giving an average of 9.5 acres per tenant-family. In the third division of this group, this average per tenant-family is 11.8 acres and in the fourth, it is 5.4. In the B group, 1903 acres and 30 gunthas are cultivated by 468 tenant-families, from land belonging to other landlords, giving an average of 4.1 acres per family. In the first division of this group the average area cultivated by the tenant-family is 7.7 acres ; in the second, it is 4.6 acres and in the third, it is 3.2 acres. In the fourth division, there are only 7 families and they are too few to give any average view. In the C group, 367 acres and 20 gunthas are cultivated by 142 tenant-families, giving an average of 2.6 acres per family. In the first division, there are 92 tenant-families, cultivating 276 acres and 30 gunthas and thus the average area cultivated by the tenant-family in this division is 3 acres. In the second division, the average area cultivated by the tenant-family is 1.8 acres.

It can be seen from table No. 8 that the total land given to tenants for cultivation is 786 acres and $16\frac{3}{4}$ gunthas, out of which the A group has given 634 acres and $25\frac{1}{2}$ gunthas, the B group 126 acres and $10\frac{1}{4}$ gunthas and the C group 25 acres and 32 gunthas. Table No. 11 on page 103 gives the analysis, according to the different divisions of the three Economic groups.

From the table it can be seen that only 81 families out of 760 families have given 786 acres and $16\frac{3}{4}$ gunthas of their land to others, for cultivation, giving an average of 9.7 acres per family. In the A group 39 families have given 634 acres and $25\frac{1}{2}$ gunthas, i.e. 16.3 acres on an average per family. In the third division, the average is 2 acres per family ; in the fourth, it is 5.1 acres per family ; in the sixth, it is 12.8 acres ; in the seventh, it is 16.7 acres and in the eighth, it is 70.7 acres. In the B group, there are 32 families, who have given 126 acres and $19\frac{1}{4}$ gunthas to others for cultivation, giving an avergae of 3.9 acres per family. In the second division of this group, the average is 1.5 acres ; in the third, it is 4.3 acres

and in the fourth, it is 5.4 acres per family. In the C group, there are only 10 families in the second division, giving 25 acres and 32 gunthas to others for cultivation, thus having an average of 2.5 acres per family.

TABLE No. 11

(showing land given to others for cultivation)

Economic groups	Divisions								
	I	II	III	IV	V	VI	VII	VIII	Total
	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.	A. G.
A ...	no fa	milies	4-0	46-20	200-5½	51-0	50-0	283-0	634-25½
B ...	...	11-33¼	56-6	58-20	n o	f a	m i l	i e s	126-19¼
C ...	...	25-32	...	n o	f a	m i l	i e s	...	25-32
All ...	...	37-25¼	60-6	105-0	200-5½	51-0	50-0	283-0	786-16¾
Number of families									
A ...	...	...	2	9	17	4	3	4	39
B ...	...	8	13	11	...	no fa	milies	...	32
C ...	...	10	...	n o	f a	m i l	i e s	...	10
All ...	.....	18	15	20	17	4	3	4	81
Average per family									
A ...	...	...	2.0	5.1	11.8	12.8	16.7	70.7	16.3
B ...	...	1.5	4.3	5.4	n o	f a m i	l i e s	...	3.9
C ...	...	2.5	...	n o	f a m i	l i e s	...	...	2.5
All ...	...	2.1	4.0	5.2	17.0	12.8	16.7	70.7	9.7

N.B.—A. = Acres; G. = Gunthas.

We have seen from table No. 8 that the total land cultivated by the A group is 1,633 acres and 20¼ gunthas. It is 3,605 acres and 33¼ gunthas in the B group and in the C group, it is 485 acres and 30½ gunthas. Thus, on an average, the A group cultivates 19.9; the B group 7.4 acres and the C group, 2.4 acres. The following table gives the total number of *khandis* of paddy that are left with these families in the three Economic groups.

TABLE No. 12

(showing total number of khandis of paddy left in the three Economic Groups)

Divisions	A			B			C			All		
	Khandis received	Khandis given	Total khandis left.	Khandis received	Khandis given	Total khandis left.	Khandis received	Khandis given	Total khandis left.	Khandis received	Khandis given	Total khandis left.
	1	2	3	1	2	3	1	2	3	1	2	3
I	...	...	...	...	821	1,802¼	...	342½	627¼	...	1,163½	2,429½
II	...	...	...	14¼	1,256½	4,833½	30¾	102¼	550½	45	1,358¾	5,384
III	6	195¾	876	67¾	238¾	3,012	...	...	...	73¾	434½	3,888
IV	57½	109	2,084½	61¾	41½	1,138¾	...	...	...	119¼	150½	3,223¼
V	303	102½	1,754½	...	...	...	...	...	...	303	102½	1,754½
VI	62	42	438	...	...	...	...	...	...	62	42	438
VII	70	17	621	...	...	...	...	...	...	70	17	621
VIII	355	...	751	...	...	...	...	...	...	355	...	751
Total ...	853½	466½	6,525	143¾	2,357¾	10,786½	30¾	462¾	1,177¾	1,028	3,288¾	18,489¼

N.B.—1 Khandi = 7 Maunds.

In the above table column No. 1 shows the total khandis received as rent for the lands, rented to the tenants ; column No. 2 shows the total khandis given to the landlords as rent for the lands cultivated and column No. 3 shows the total khandis left after the rent is paid or received, together with the khandis that are produced on their own lands. Thus, from the above table it can be seen that the net khandis that are left with these 760 families are 18,489¼. In the A group, 6,525 khandis are left, giving an average of 79.6 khandis per family. In the B 10,786½ khandis are left, giving an average of 22.4 khandis per family and in the C 1,177¾ khandis are left, giving an average of 5.9 khandis per family.

But the total net khandis that are left with the different divisions are different in the three Economic groups. For instance, in the third division of the A group, the net khandis left with the average family are 56.4 ; in the fourth, 61.3 ; in the fifth, 83.6 ; in the sixth, 109.5 ; in the seventh, 155.2 and in the eighth, 187.7. In the B group, in the first division, they are 18.8 khandis per family ; in the second, 19.2 ; in the third, 29.2 and in the fourth, 36.7. In the C group, in the first division, they are 5.6 khandis and in the second 6.8 khandis.

From tables Nos. 11 and 12 can be seen the rent that is received or given for the lands that have been given to others or taken from others for cultivation. Table No. 13 on page 106 shows the average rent per acre for the lands given to others for cultivation and also for the land taken from others for cultivation.

It can be seen from the table that the average rent per acre is 1.2 khandis. But it slightly varies with the three Economic groups. For instance, the A group receives, on an average 1.3 khandis per acre from their tenants, while it gives 1.2 khandis per acre. The reverse is the case in the case of the C group. It receives 1.2 khandis per acre but gives 1.3 khandis per acre. So, it can be seen that the rent per acre varies inversely with the economic position of the

TABLE No. 13

(showing average rent per acre)

Economic groups	Lands given to others for cultivation			Lands taken from others for cultivation		
	Acres	Rent (khandis)	average per acre	Acres	Rent (khandis)	average per acre
	A. G.			A. G.		
A ...	634-25½	853½	1.3	369-20	466¼	1.2
B ...	126-19¼	143¾	1.2	1,903-30	2,357¾	1.2
C ...	25-32	30¾	1.2	367-20	462¾	1.3
All ...	786-16¾	1,028	1.2	2,640-30	3,288¾	1.2

N.B.—A. = Acres ; G. = Gunthas.

tenants. From my personal investigations it was also found that the rent varies also with the different localities. For instance, the rent per acre in the Ambadi village is 2 khandis. This may be due, perhaps to the scarcity of land.

Table No. 12 gives the total paddy received by the three Economic groups. A part of this paddy is reserved for annual consumption and the rest is sold. The following table shows how much paddy is required for annual consumption and how much is sold, in the three Economic groups.

TABLE No. 14

(showing total number of khandis required for annual consumption)

Economic groups	Total members of the families				Total paddy received (khandis)	Total paddy required for annual consumption (khandis)	Total paddy remained for sale (khandis)
	Adults	Children	Servants	Total			
A ...	516	436	161	1,113	6,525	2,211¼	4,313¾
B ...	1,729	1,609	197	3,535	10,786½	7,014¼	3,772¼
C ...	549	408	5	962	1,177¾	1,892½	—714¾
All ...	2,794	2,453	363	5,610	18,489¼	11,118	7,371¼

Generally, an adult requires 15 maunds of paddy every year and the paddy that is required for children varies with their ages. In the above table, the paddy required for children is taken after careful personal inquiry. It can be seen that in the A group, out of the total 6,525 khandis received, 2,211¼ are required for annual consumption for all the members of their families, including the permanent servants, taken for agricultural purposes on pledged services and the remaining 4,313¾ khandis are sold, giving an average of 52.6 khandis per family. In the B group 3,772¼ khandis are left for sale giving an average of 7.8 khandis per family. But in the C group, there is a deficit of 714¾ khandis, as the total khandis required for annual consumption are 1,892½ khandis, while the total khandis received by this group are 1,177¾ khandis. In this group a majority of the families are agricultural labourers and they depend for their livelihood upon the labour that they get.

The following table shows the average production, the average consumption and the average surplus for sale per family in the three Economic groups.

TABLE No. 15

(showing average receipt, consumption and surplus per family)

Economic groups	Average receipt per family	Average consumption per family	Average surplus per family
	(Khandis)	(Khandis)	(Khandis)
A ..	79.6	26.9	52.7
B ...	22.4	14.9	7.5
C ...	5.9	9.6	—3.7
All ...	24.3	14.6	9.7

From the above table it can be seen that the average surplus per family is 9.7 khandis. In the A group, the average surplus for sale is 52.7 khandis ; in the B group, 7.5 khandis ; but in the C group there is a deficit of 3.7 khandis per family.

In the A group there is not a single family which receives less paddy than what is required for its annual consumption. But in the B and C groups, there are some families whose total produce of paddy is less than their annual consumption. Table No. 16 on page 109 gives the details.

Thus, in the B group there are 89 families, i.e. nearly 18.7 per cent of the total number of families and in the C group there are 147 families, i.e. nearly 74.6 per cent of the total families, that do not produce paddy sufficient for their annual consumption. Of these, 24 families in the B group are landless, 57 families have land not more than five acres, six families have land between 5-10 acres and two families have 10-15 acres. But it seems that these families have given their lands to others for cultivation and they depend upon other sources of income. In the C group 97 families are landless and the remaining 50 families hold lands upto 5 acres. Practically, a majority of these families depends upon agricultural labour. There are only 50 families in this group that produce more paddy than what is sufficient for their annual consumption. If we take into consideration the percentage, in the different divisions, we find that in the B group, in the first division it is 25 per cent ; in the second, 22.3 per cent and in the third, 5.8 per cent. In the C group, in the first division, the percentage of such families is 83.6 and in the second, 61.7 per cent.

Out of these families that do not have sufficient provision of paddy for the whole year, there are 4 families in the first division of the B group that neither have lands nor do they cultivate any land and are dependent upon their hereditary occupations. Two of them are Ironsmiths, one is a Dhanagar and the fourth is a Chambhar. In the C group, there are 24 families in the first division, who are landless and do not cultivate any land and are entirely dependent upon agricultural labour.

Cattle :

Next to land, cattle is the major holding as it plays an important part in the economics of agriculture. Cattle are essentially needed for the agricultural purposes as " the cow

TABLE No. 16

(showing number of families producing less paddy than their annual consumption)

Divisions	B				C				All			
	No. of families	Paddy produced	Paddy required for consumption	Additional paddy required	No. of families	Paddy produced	Paddy required for consumption	Additional paddy required	No. of families	Paddy produced	Paddy required for consumption	Additional paddy required
		(khandis)	(khandis)	(khandis)		(khandis)	(khandis)	(khandis)		(khandis)	(khandis)	(khandis)
I	24	277½	408¾	131¼	97	458¾	1,043¾	585	123	736¼	1,452½	716¼
II	57	836	1,042½	206½	50	296½	516¼	219¾	107	1,132½	1,558¾	426¼
III	6	107½	128½	21	...	...	...	...	6	107½	128½	21
IV	2	40	56¼	16¼	...	...	...	...	2	40	56¼	16¼
Total ...	89	1,261	1,636	375	147	755¼	1,560	804¾	238	2,016¼	3,196	1,179¾

N.B.—1 Khandi = 7 Mds.

and the working bullock have on their patient back, the whole structure of Indian Agriculture. They are the faithful assistants of the farmer without whom he can neither till his fields nor carry his produce to the market.[1] " The following table shows the total number of cattle in the three Economic groups :—

TABLE No. 17

(showing total cattle in the three groups)

	A	B	C	All
Bullocks	475	892	172	1,539
Cows	325	585	65	975
Calves	210	462	53	725
She-buffaloes ...	205	369	34	608
He-buffaloes ...	395	575	34	944
Buffalo-calves ...	153	278	18	449
Total cattle ...	1,763	3,101	376	5,240
Sheep & goats ...	67	23	...	90
Grand Total	1,830	3,124	376	5,330

Out of the 760 families, 2 families in the A group, 38 families in the B group and 93 families in the C group have no cattle. Thus, it can be seen that about 7.9 per cent of the B group and 47.2 per cent of the C group have no cattle. It is obvious that there is a higher percentage of families having no cattle, in the C group, as in this class as we have seen from table No. 6, 58.8 per cent of the total families have no lands.

Cattle are essential for the cultivation of land. Table No. 18 on page 111 shows average cattle and average working animals per acre in the three Economic groups.

Thus, we find that in the A group, the average of working animals per cultivated acre is .5 and in the B and C groups it is .4. So, the total area cultivated per yoke in the A group is 3.9 acres and in the B group 5 acres and

[1] Lord Linlithgow—Presidential Address — *Agriculture and Live Stock in India*, p. 1.

TABLE No. 18

(showing correlation between cattle and land cultivated)

Groups	Total area cultivated		Total cattle	Total working animals	Cattle per acre	Working animals per acre
	A	G				
A	1,633	20½	1,763	870	1.1	.5
B	3,605	33½	3,101	1,407	.9	.4
C	485	30½	376	206	.8	.4
All	5,725	24	5,240	2,483	.9	.4

N.B.—A = Acres; G = Gunthas.

in the C group 4.7 acres. Normally, the total area that is cultivated in the taluka with the help of one yoke, is on an average 4 acres and thus we find that except in the A group, there is a deficiency of working animals as compared to the other groups.

But although, there is some deficiency of working animals on the whole, the total number of ordinary cattle seems to be rather in excess. The number of cattle depends upon and is regulated by the demand for the working animals. The worse the conditions for rearing efficient cattle, the greater the numbers kept, tend to be. Cows become less fertile and their calves become undersized and do not satisfy cultivators who in the attempt to secure useful bullocks breed more and more cattle. Besides, the average number of acres that are cultivated with the help of these working animals, is very low, mainly because these animals on an average are inefficient. If the working animals are efficient there would not have to be the burden of maintaining a large number of cattle. Under the present conditions, as the cattle grow smaller in size and greater in number, the rate at which conditions become worse for the breeding of good live-stock is accelerated. For, it must be supposed that the food required by a hundred small cattle is the same as that needed by fifty of double the size,

as cattle become smaller, the amount of food needed in proportion to their size increases.[1] Thus large numbers of diminutive cattle are a serious drain, as the fodder supply in the taluka is very low at certain seasons of the year.

Milch cattle, cows and she-buffaloes :

Out of the total of 5,240 cattle, 1,583 are milch-animals, viz. 975 cows and 608 she-buffaloes. Unfortunately we have no statistics of their milk-giving capacity but "the agriculturists are concerned with the cow as the mother of his bullock and attach only secondary importance to its milking capacity.[2]"

Sheep and goats :

As a rule, the agriculturists in this taluka are not in the habit of rearing sheep and goats. Only in 13 families of the A group and in 8 families of the B group, 89 sheep and goats were found. Out of these 21 families, two are *Varli* families, two are *Thakur* families and the remaining 17 families are Muslim families. It is obvious that no attention is paid to rearing sheep and goats in this taluka, although "sheep is the poor man's cow and its milk can be raised with little difficulty by selection.[3]" Its milk is very good especially for children and its wide use may contribute much to the health of the people.

Grazing Land :

Now, let us see the provision of grazing land in the taluka. Table No. 19 on page 113 shows the total number of cattle in 192 villages and the area reserved for grazing purposes.

There are in all 205 villages in the taluka, out of which in 8 villages there are no cattle. Three *Devastan* villages are excluded from the above statement. The remaining two are (1) Bhiwandi and (2) Nizampur. The Bhiwandi Municipal area is made up of these two villages and the total number of cattle in the Municipal area is 2,059. This total

[1] *Report of the Royal Commission on Agriculture* (Abridged), p. 20.
[2] *Report of the Royal Commission on Agriculture*, p. 27.
[3] *Ibid.*, p. 180.

TABLE No. 19

(showing grazing area and total number of cattle)

Cattle	Total No. of cattle	No. of villages	Area reserved for grazing		Extra reservation required for grazing
			Gurcharan	W. P. F.	
			A. G.	A. G.	A. G.
1-100	2,546	37	298- 1	1,482-19	571-28
101-200	10,890	69	1,167-21	4,667-27	1,564- 2
201-300	10,894	44	922-17	3,565-19	1,881-16
301-400	8,068	24	982-36	2,049-24	1,153-10
401-500	2,764	6	249-34	546-16	665-24
501-600	3,220	6	500-28	956- 7	398-26
601-700	1,853	3	243- 1	147-37	535-22
701-800	715	1	56-16	164-35	133-29
801-900	1,645	2	218- 0	62-16	542-24
Total ...	42,595	192	4,641-24	13,643-0	7,446-21

N.B.—W. P. F. = Woodland Protected Forest; A. = Acres; G. = Gunthas.

number of cattle is comparatively high owing to the *Panjarpole,* kept in the Municipal limit. There is no grazing area within the Municipal limit and therefore these two villages are excluded from the above statement.

Thus, in the 192 villages included in the above table, the total number of cattle is 42,595 and the total area available for grazing purposes is 18,284 acres and 24 gunthas, out of which 4,641 acres and 24 gunthas are under *gurcharan* and 13,643 acres are under W. P. F. Roughly speaking, one acre can provide for two cattle on an average[1] and thus it can be seen that there is insufficient provision for grazing purpose and about 7,446 acres are required in addition to feed all the cattle.

Out of these 192 villages let us see in how many villages there is sufficient provision for grazing land and in the remaining villages, let us find whether any provision of grazing land can be made. The following table gives the details.

[1] This calculation is worked out by the Revenue Department.

TABLE No. 20

(showing provision of grazing land in the villages)

Cattle	Villages having provision for grazing land	Villages where grazing provision can be made from		Villages where partial provision can be made from		Villages where there can be no provision	Total villages
		P.F.	W.L.	P.F.	W.L.		
1—100	15	3	2	..	...	17	37
101—200	32	3	1	1	...	32	69
201—300	17	1	...	...	...	26	44
301—400	9	...	...	...	1	14	24
401—500	1	...	...	...	...	5	6
501—600	3	...	...	...	...	3	6
601—700	...	...	...	...	1	2	3
701—800	...	...	...	...	...	1	1
801—900	...	...	...	...	1	1	2
Total ...	77	7	3	1		101	192

P. F. = Protected Forest. W. L. = Woodland Forest.

From the above table we can see that out of 192 villages, there are 77 villages where a provision for grazing land is fully made. In 7 villages the provision can be made from P. F. and in three villages it can be made from "waste land". In 4 villages the provision can be made partially, in three villages from 'waste land' and in one village from P. F. But in the remaining 101 villages there is no possibility of having additional provision of grazing land, sufficient for the total number of cattle in those villages.

But, every year there are some cattle diseases in some villages of the taluka and cattle die causing a heavy loss to the agriculturists. The following table gives the details.

TABLE No. 21

(showing attacks and deaths of cattle)

Years	No. of villages affected	No. of cattle attacked	Deaths	No. of cattle inoculated	Deaths of inoculated cattle
1932-33 ..	17	649	106	180	...
1933-34 ...	8	174	84	216	...
1934-35 ...	22	564	232	1,065	...
1935-36 ...	12	465	193	389	...
1936-37 ...	13	286	143	462	3
1937-38 ...	5	33	32	141	...

From the above table it can be seen that there is a serious loss of cattle owing to the cattle epidemics. It can be also seen that out of the total 2,453 cattle inoculated, during 1932-33 to 1937-38, only three died. Therefore, it is obvious that immediate steps for inoculation should be taken wherever the cattle epidemics exist and arrangement should be made to inoculate the cattle.

Thus, the important problem is to improve the livestock as the prosperity of agriculturists entirely depends upon cattle. It requires substantial changes to be introduced in the existing management of cattle. The three cardinal points in a policy of improvement must be (i) reduction in the number of plough cattle, (ii) an increase in the efficiency of plough cattle and

(iii) attention to all matters that would tend to decrease the working animals required for cultivation. We have seen that grazing land is insufficient for the cattle, so reduction in the number of cattle is absolutely necessary, in order to get the highest efficiency of cattle. The taluka is not a cattle land and cattle are half-starved, for a considerable part of the year and at intervals of a few years, there comes some cattle-disease in every village and a large number of working-animals are carried away.

CHAPTER V

THE PROBLEM OF AGRICULTURAL INDEBTEDNESS

Out of the 760 families that are studied, 721 families are members of the Primary Co-operative Societies and out of these, 684 families have taken loans from these societies. Out of the remaining 37 families, who are members of the Co-operative Societies, 6 families are from the A group, 15 from the B group and 16 from the C group. All the six families from the A group are indebted to the local *Sowcars,* the total debt being Rs. 3,305 ; from the B group only 7 out of the 16 families are indebted to the local *Sowcars,* the total debt being Rs. 830 and from the C group, out of 15, 4 families are indebted to the local *Sowcars* owing in all Rs. 276.

There are in all four sources of debts in the Taluka viz. (i) debts from the Co-operative Societies, (ii) debts from the local *Sowcars,* (iii) *Palemode* debts and (iv) debts in kind. There are in all 34 families which are free from any kind of debt, out of which 4 are from the A group, 15 from B and 15 from C. Table No. 1 on page 118 gives the extent of indebtedness of the families, from all these sources, according to the three Economic groups.

It can be seen that the total amount of indebtedness of these 760 families is Rs. 3,08,115-8-0 giving the incidence of indebtedness at Rs. 406 per family and Rs. 58 per individual. The incidence of indebtedness is Rs. 1,079 per family in the A group, Rs. 401 in the B group and Rs. 138 in the C group ; the indebtedness per individual being Rs. 93, Rs. 58 and Rs. 29 respectively.

As can be seen from the table, debts are contracted from four sources. It must be remembered that out of 760 families 721 families are members of the Co-operative Societies and as such they are expected to take loans from the Co-operative Societies. For, the basic idea of the Co-operative

TABLE No. 1

(showing the total amount of indebtedness)

Debts from	A		B		C		All	
	No. of families	Amount	No. of families	Amount	No. of families	Amount	No. of families	Amount
		Rs.		Rs.		Rs.		Rs.
Local *Sowcars*	64	61,206—0	415	1,17,659—0	124	13,876—0	603	1,92,741—0
Co-operative societies	67	26,215—0	446	66,178—8	171	12,373—0	684	1,04,766—8
Palemode Debt	10	1.097—0	133	7,626—8	24	554—8	167	9,278—0
Debt in kinds	...	...	35	882—0	21	448—0	56	1,330—0
Families without any kind of debt ...	4	...	15	...	15	...	34	...
Total ...		88,518—0		1,92,346—0		27,251—8		3,08,115—8

Societies is to aim at ameliorating the economic and social conditions of the farmer by taking within their ambit every possible aspect of his life and endeavouring to help him not only in regard to the supply of credit, but in all matters which combine to make farming uneconomic at present. "It cannot be said however that the co-operative movement has kept this ideal steadily before its eyes or made sustained efforts to carry it on in practice."[1] The result is obvious. These families that are members of the Co-operative Societies have to go to the *Sowcars* in times of need and thus the aim of the Co-operative Societies is to some extent frustrated. For, out of 760 families 721 families are members of the Co-operative Societies and 603 families have taken debt from the local *Sowcars* and these debts form 60 per cent of their total debts, as can be seen from the above table. In the A group debt from the local *Sowcars* is about 70 per cent, in the B group, 59 per cent, and in the C group, 46.5 per cent. The debt from the Co-operative Societies in the whole sample is about 32.8 per cent, being 30 per cent in the A group, 33 per cent in B and 45 per cent in C. It can be noticed that the debts from the *Sowcars* vary directly with the economic status of the persons concerned. It is highest in the A group, probably because, it has sufficient security to offer ; in the B group it is less than in the A group and in the C group it is the lowest. But the debts from the Co-operative Societies are just in the reverse order. In the A group it is 30 per cent, in the B group it is 33 per cent, but in the C group which is practically a landless group it is 45 per cent. This raises a number of questions regarding the Co-operative Movement which we will discuss later on.

I. Debts from the ***Sowcars*** :

Let us now take into consideration the frequency and the extent of the debt taken from the local *Sowcars* in the three Economic groups. The following table gives the details.

[1] *Co-operative Village Banks : Reserve Bank of India Bulletin* No. 2, p. 1.

TABLE No. 2

(showing extent and frequency of indebtedness from the local Sowcars)

Debt	A		B		C		All	
	No. of families	Amount	No. of families	Amount	No. families	Amount	No. of families	Amount
Rs.		Rs.		Rs.		Rs.		Rs.
1-50	...	...	51	1,675 0	57	1,631 0	108	3,306 0
51-100	5	428 0	74	5,221 0	25	1,936 0	104	7,584 0
101-150	2	300 0	64	7,694 0	20	2,520 0	86	10,514 0
151-200	1	200 0	43	7,129 0	5	842 0	49	8,171 0
201-250	2	395 0	28	5,879 0	5	1,122 0	35	7,397 0
251-300	4	1,133 0	27	6,795 0	3	810 0	34	8,738 0
301-400	7	2,325 0	33	10,435 0	2	733 0	42	13,493 0
401-500	5	2,413 0	20	8,671 0	4	1,862 0	29	12,946 0
501-600	8	4,326 0	17	9,228 8	1	600 0	26	14,154 8
601-700	1	625 0	15	9,799 0	1	700 0	17	10,124 0
701-800	4	2,935 0	13	9,799 0	...	...	17	12,734 0
801-900	...	...	6	4,785 0	...	...	6	4,785 0
901-1,000	3	2,730 0	4	3,698 0	...	...	7	6,428 0
1,001-1,500	8	9,550 0	13	14,192 0	1	1,120 0	22	24,862 0
1,501-2,000	6	9,805 0	4	6,370 0	...	...	10	16,175 0
2,000-2,500	3	6,570 0	3	6,288 8	...	...	6	12,858 8
2,501 and above	5	17,471 0	...	...	...	...	5	17,471 0
Total ...	64	61,206 0	415	1,17,659 0	124	13,876 0	603	1,92,741 0

The first striking thing that can be noted from the above table is that the percentage of indebted families is higher in the B group than in A or C. In the A group it is 80 per cent, in the B group 89 per cent and in the C group 70 per cent. Thus the percentage of families which are free from debts is respectively 20, 11 and 30 per cent, in the three groups. It is obvious that the C group which is landless and as such has no security to offer, cannot get debt from the *Sowcars,* as easily as the other two groups. It is only possible for the C group to get debts from the Co-operative Societies as it can be seen from table No. 1 that out of 187 families in the C group 171 families have taken debts from the societies.

The mode of indebtedness in the A group is Rs. 501-600 and Rs. 1,001-1,500, in the B group, it is Rs. 51-100 and in the C group, it is Rs. 1-50. In the A group there are no families which are indebted upto the sum of Rs. 50 ; in the B group, there are 59 such families, i.e. about 14 per cent of the total indebted families ; but in the C group, there are 68 out of 135 families, i.e. nearly 50 per cent of the total indebted families. It shows the indebtedness of half the families to be below the sum of Rs. 50. They are all practically landless families and as such, find it very difficult to get any debt from the *Sowcars.* Again in the C group, there are three families whose indebtedness is to the extent of Rs. 600, Rs. 700 and Rs. 1,120. It is curious that in this class which is practically a landless class, they have such great amounts of indebtedness. The reasons are not far to seek. During the last seven years, the prices of paddy had, owing to depression, fallen to 50 per cent of the previous prices, so the process of being landless was very rapid and those families that had lands, lost their lands, but the ancestral debt was still there and the *Sowcars* did not expect any return from them. They are as good as the insolvent debtors although agricultural insolvency is not allowed by law.

Secured and Unsecured Debts :

We have seen that the total amount of debt from the local *Sowcars* is Rs. 1,92,741. A part of it is secured debt,

while the remainder is unsecured. The following table shows the proportion that exists between the secured and unsecured debts.

TABLE No. 3
(*showing secured and unsecured debts*)

Kind of debt	A	B	C	All
	Rs.	Rs.	Rs.	Rs.
Secured	30,111-0	46,081-0	6,921-0	83,113-0
Unsecured	31,095-0	71,578-0	6,955-0	1,09,628-0
Total ...	61,206-0	1,17,659-0	13,876-0	1,92,741-0

Thus, out of the total debt of Rs. 1,92,741, the secured debt is Rs. 83,113, i.e. about 43.1 per cent ; and according to the three Economic groups it is 42.9 per cent in the A group, 39.0 per cent in the B group and 43.1 per cent in the C group.

It may appear paradoxical that the C group which is practically a landless group has a larger percentage of the secured debts. But the reasons are not far from the actual facts that are working in the matter of indebtedness. As is mentioned above, all the families in the C group were not landless *ab initio*. They had their own lands. But the process of the passing of land from the hands of the cultivators into the hands of the *Sowcars* is continuously going on and has been more rapid during the last seven years (i.e. 1930-37) or so. So, many of the C group families that possessed lands had to mortgage them, in the hope that they would be in a position to redeem them ; but it has never happened and it is now next to impossible, unless some strong measures are taken. Today, such families are merely agricultural labourers on their own lands !

Rate of Interest :

The rate of interest varies according as debts are secured or unsecured and even otherwise. The following table gives the details.

TABLE No. 4

(showing the rate of interest of the secured and unsecured debts)

Rate of Interest	A		B		C		All	
	Secured	Unsecured	Secured	Unsecured	Secured	Unsecured	Secured	Unsecured
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
6¼ p.c.	1,800 0	...	1,600 0	...	400 0	...	3,800 0	...
9 „	500 0	...	2,100 0	...	...	...	2,600 0	...
12½ „	7,430 0	5,000 0	10,645 0	13,851 0	2,475 0	1,663 0	20,550 0	20,514 0
15 „	3,450 0	1,900 0	5,915 0	2,863 0	1,610 0	133 0	10,975 0	4,896 0
18¾ „	5,478 0	7,225 0	16,503 0	12,909 0	1,341 0	1,660 0	23,322 0	21,794 0
25 „	1,902 0	4,595 0	7,173 0	15,391 0	750 0	2,328 0	9,825 0	22,314 0
33⅓ „	...	...	120 0	...	...	...	120 0	...
36 „	400 0	...	100 0	...	2,250 0	...	725 0	...
48 „	...	...	...	...	50 0	...	...	50 0
Without interest ...	...	2,350 0	...	2,989 0	...	571 0	...	5,910 0
Instalments	9,151 0	10,025 0	1,925 0	22,485 0	...	600 0	11,076 0	33,110 0
Sub-judice	...	...	...	595 0	..	...	...	595 0
Miscellaneous	...	...	...	445 0	120 0	...	120 0	445 0
Total ...	30,111 0	31,095 0	46,081 0	71,578 0	6,921 0	6,955 0	83,113 0	1,09,628 0

In the above table, the debts, taken without interest, are mostly taken from the relatives and friends and as such no interest is charged. In the case of the debts which are now paid by instalments, a large percentage of them is of ancestral debts. The interest was paid on these sums for a long period and now the payment of interest is stopped by mutual understanding and the principal is to be returned to the *Sowcars* by instalments. In the miscellaneous item, the unsecured debt of the B group, is advanced to five families on the understanding that they have to sell their whole crop of the year to the *Sowcars*; and the secured debt of the C group is advanced to two families on the pledge of personal service.

From the above table it can be seen that the rate of interest depends upon the security offered. For instance, in the whole sample, there is no unsecured debt, and the rate of interest is 6¼ per cent and 9 per cent, while the secured debt is to the extent of Rs. 6,400. In the case when the rate of interest is 12½ per cent, 15 per cent and 18¾ per cent the secured debt is in greater proportion than the unsecured debt, as the secured debt is Rs. 54,847, while the unsecured debt is Rs. 47,204. But in the case of higher rate of interest than 18¾ per cent, the unsecured debt is Rs. 22,364 while the secured debt is Rs. 10,670.

But the rate of interest also varies according to the economic position of the indebted families. Table No. 5 on page 125 gives the details.

From the table it can be seen that when the rate of interest is 6¼ per cent and 9 per cent, in case of the secured debts, the percentage to the total debt is respectively 7.5, 8 and 5.7 per cent, in the three Economic groups. When the rates of interest are 12½ per cent, 15 per cent and 18¾ per cent in the case of secured debts, the percentage to the total debts is respectively 54.4, 71.7 and 78.8 per cent, in the three Economic groups, while in the case of the unsecured debts, these percentages are respectively 45.5, 41.4 and 49.2 per cent. In the case when the rate of interest is higher than 18¾ per cent the percentages to the total debts in case of secured debts

TABLE No. 5

(showing the percentage of debts secured and unsecured, according to the rate of interest)

Rate of interest	A		B		C		All	
	Secured	Un-secured	Secured	Un-secured	Secured	Un-secured	Secured	Un-secured
6¼ p. c.	5.9	...	3.5	...	5.7	...	4.6	...
9 „	1.6	...	4.5	...	...	...	3.2	...
12½ „	24.7	16.1	23.1	19.4	35.8	23 9	24.7	19.4
15 „	11.5	6.1	12.8	3.9	23.3	1.8	13.2	4.4
18¾ „	18.2	23.3	35.8	18.1	19.7	23.5	28.0	19.7
25 „	6.3	14.7	15.6	21 5	10.6	33.4	11.8	20 2
33⅓ „	...	...	.3	...	...	...	.1	...
36 „	1.4	...	.2	...	3.2	...	.9	...
48 „	...	...	...	.1	...	...	...	negli-gible
Without interest	...	7.6	...	4.2	...	8.6	...	5.3
Instalments	30.4	32.2	...	31.4	...	8.8	13.4	30.1
Sub-judice	...	...	...	.8	...	...	...	.5
Miscel-laneous	...	...	...	.6	1.7	...	.1	.4
Total ...	100.0	100.0	100.0	100.0	100.0	100 0	100.0	100.0

are respectively 7.7, 16.1 and 13.8 per cent ; and in the case of unsecured debts, these percentages are respectively 14.7, 21.6 and 33.4 per cent. Thus it is obvious that the C group has to pay more interest for both the secured and unsecured debts.

In case of the debts wherein the payment of interest has been stopped and the principal is to be returned to the *Sowcars* by instalments, the A group has a higher percentage of the total debts, both secured and unsecured, than the two other groups. For instance, in the A group, the percentage of the total debts in case of the secured debts is 30.4 per cent and in case of the unsecured debt, it is 32.2 per cent. In the B group, these percentages are respectively 0 and 31.4 per cent and in the C group, they are respectively 0 and 8.8 per cent. It is obvious that in the A and B groups, it is possible to stop the payment of interest, as the interest has

been paid for a long period and to settle the accounts by easy annual instalments. But in the case of the C group, it is not so done, as this class is practically a landless class. It can also be noted that such cases of mutual settlement are few in case of secured debts as the *Sowcars* are unwilling to accept instalments when they have got the securities in their hands. It is only in the case of the unsecured debts, that the *Sowcars* agree to take instalments.

Different kinds of Securities :

We have seen that out of the total debt of Rs. 1,92,741, the secured debt is Rs. 83,113, i.e. nearly 43.1 per cent of the total debt. The following table gives the different kinds of securities that have been offered by the indebted families.

TABLE No. 6

(*showing the different kinds of securities*)

Kind of securities	A	B	C	All
	Rs.	Rs.	Rs.	Rs.
Land	27,588-0	42,088-0	6,601-0	76,277-0
Ornaments	2,523-0	3,973-0	200-0	6,516-0
Service	...	...	120-0	120-0
Total ...	30,111-0	46,081-0	6,921-0	83,113-0

From the above table it can be seen that a large proportion of the secured debts is taken on the security of land, as the percentage of land security is respectively 91.5, 91.5 and 95.4, in the three Economic groups. Generally, the sum advanced on land is always about half the price of the land. Some of the lands were mortgaged, when the prices of land were very high. These prices have now come down to a great extent and consequently these securities are not of sufficient value, with the result that the lands that are mortgaged, are as good as passed into the hands of the *Sowcars.*

The percentage of the securities in the form of ornaments in the three Economic groups is respectively 8.5, 8.5 and 2.9.

In the case of the ornament securities, the sum advanced is not generally more than half the price of the ornaments. These ornaments are mortgaged, generally at the *Marwari's Pedhis*, and the agriculturists being ignorant do not know the prices of gold and silver, nor are they in a position to know the quality of the gold or the silver. So the obvious result is that these people have to depend entirely upon the *Marwari's* view-point and they generally under-rate the gold and silver and give about half the value of the ornaments, as debt.

The third type of security is in the form of personal service. Two families from the C group are indebted to the extent of a sum of Rs. 120 and in return they have pledged their services to the *Sowcars*. One member of their families has to serve on the farms of the *Sowcars*, at the rate of Rs. 20 per annum. During the service period he gets food and clothes.

Purpose of Indebtedness :

Indebtedness though bad in itself may not be utterly bad if the purposes for which debts are contracted are such, as help greater economic efficiency. Thus, the purposes for which debts are contracted are an index of the economic and social welfare of the population. Table No. 7 on page 128 shows the different purposes of indebtedness.

It is obvious from the table that a great percentage of debts in all the three groups is for unproductive purposes. For instance, in the A group it is 76 per cent, in B 86.5 per cent and in C 93 per cent. In the A group 24 per cent of the total debt taken from the *Sowcars* is spent for productive purposes, in the B group 13.5 per cent is thus utilised and in C only 7.0 per cent helps some productive purpose.

The debts incurred for social and religious items such as marriages and funerals, in the three groups are respectively 26.8, 35.7 and 51.4 per cent. In the whole sample they are 34 per cent. This shows that this item is an important item of their indebtedness. In the C group more than half the

TABLE No. 7

(showing purpose of indebtedness)

Purpose of indebtedness	A		B		C		All	
	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage
	Rs.		Rs.		Rs.		Rs.	
1. Marriage Expenses ...	16,338 0	26.8	41,637 0	35.4	6,993 0	50.3	64,968 0	33.7
2. Purchase of Land ...	10,554 0	17.1	5,388 0	4.6	25 0	.2	15,977 0	8.3
3. Domestic Wants ...	5,871 0	9.8	19,234 8	16.3	3,693 0	26.8	26,798 8	14.9
4. Trade and Commerce ...	2,100 0	3.5	1,910 0	1.6	...	...	4,010 0	2.1
5. Land Improvement ...	1,860 0	2.9	5,705 0	4.9	705 0	5.1	8,270 0	4.3
6. House Building and Repairing ...	1,025 0	1.7	1,540 0	1.3	60 0	.4	2,625 0	1.4
7. Payment of Land Revenue ...	910 0	1.5	1,511 0	1.3	150 0	1.1	2,171 0	1.1
8. Court Expenses ...	300 0	.5	870 0	.8	150 0	1.1	1,320 0	.8
9. Buying of Cattle ...	250 0	.5	2,562 0	2.2	250 0	1.7	3,062 0	1.6
10. Payment of Security ...	90 0	.1	246 0	.2	...	...	336 0	.1
11. Redemptiom of old Debt ...	...	...	4,635 0	3.9	...	...	4,635 0	2.4
12. Payment of Land-Rent ...	...	...	525 0	.5	80 0	.6	605 0	.3
13. Payment of Societies' dues ...	...	...	400 0	.3	70 0	.5	470 0	.2
14. Death Ceremonies ...	...	...	343 0	.3	150 0	1.1	493 0	.2
15. Sowcari ...	...	...	290 0	.2	...	...	290 0	.1
16. Sickness ...	...	...	275 0	.2	15 0	.1	290 0	.1
17. Tagavi Instalments ...	...	...	160 0	.1	...	...	160 0	.1
18. Miscellaneous ...	12,151 0	19.8	...	...	...	...	12,151 0	6.5
19. Not known ...	9,757 0	15.8	30,427 8	25.9	1,535 0	11.0	41,719 8	21.8
Total ...	61,206 0	100.0	1,17,659 0	100.0	13,876 0	100.0	1,92,741 0	100.0

debt is incurred for marriage expenses and it shows that the minimum standard of the marriage expenses is necessary, irrespective of the economic position of these families.

The percentages of the debts incurred for domestic wants, in the three Economic groups, are respectively 9.8 per cent, 16.3 per cent and 26.8 per cent. These debts are generally taken from the village-shopkeepers, in the form of their daily requirements such as cloth, tea, sugar, tobacco etc. It can be seen that the C group has to incur a large percentage of this kind of debt. Leaving aside 11 per cent of the debt of the C group, the purpose of which is not known, the two main purposes of indebtedness of this group are the marriage and funeral expenses and the domestic requirements, which form 78.2 per cent of the total debts and the remaining 10.8 per cent of the total debts are incurred for other purposes.

The percentages of debts incurred for the improvements and cultivation of land in the three Economic groups are respectively 2.1, 4.1 and 5.1 per cent. It is paradoxical that the C group which is practically a landless group, has to incur a higher percentage of debt for the land improvements and land cultivation. It cultivates small pieces of land as subsidiary occupations and even in order to cultivate such small pieces of land it cannot do without debt. The reason is obvious. It does not possess agricultural equipment, such as bullocks, ploughs etc. and has to borrow them from others. So the expenditure on agricultural operations is proportionately higher in this group.

The percentages of debts incurred for the payment of the land rent are respectively .5 per cent and .6 per cent in the B and C groups. Actually, these families have not taken the sums from the *Sowcars*. They have failed to pay the rent and the land-owners have assumed that the price of the paddy is the amount of debt given to these families and since then the interest is charged on these sums.

The percentages of debts incurred, the purpose of which is not known to us, are respectively 15.8, 25.9 and 11.0 per

cent in the three Economic groups. It is doubtful whether these debts were incurred for productive or unproductive purposes. But roughly it can be said that a major portion of these debts was incurred for unproductive purposes. In the A group, the percentage of debts incurred for miscellaneous purposes is about 19.8 cent. This debt is mainly due to the sudden fall in the price of paddy in the year 1930 and this class owing to its large holdings, could not adjust itself to the low prices of paddy and naturally it had to go in, for debts.

II. **Debts taken from the Co-operative Societies :**

We have so far discussed the debts taken from the local *Sowcars*. Out of the 760 families in our sample, 721 families are members of the Co-operative Societies and out of them, 684 families have taken loans from the Primary Co-operative Societies to the extent of Rs. 1,04,766-8-0. We will discuss these debts in details, in the next chapter, wherein we will study the problem of the Co-operative Movement.

III. ***Palemode*** **debts :**

The third type of debt is the *Palemode* debt. The total amount of debt incurred under this head is Rs. 18,556 and it has been taken by 167 families of the three Economic groups.

Before we discuss in details this kind of debt, a word of explanation is necessary with regard to this system of indebtedness.

Generally, in the months of May and June, the agriculturists are in need of money, for agricultural purposes and for their domestic wants during the rainy season. These people, on an average, find it very difficult, now-a-days, to get an easy credit from the *Sowcars*. It may be due partly to the want of security and partly to the recent legislations that the *Sowcars* are generally disinclined to pay any amount to the agriculturists on mere personal credit. Government has passed a series of Acts, since the Deccan Agricultural Relief Act, in the interest of the agriculturists, but it has not made any sufficient provision for the casual sums that may be

required by the agriculturists. No doubt, Co-operative Societies have been started in the Taluka and there is also a provision for Tagavi loan. But the amount that is received from these two sources forms an insignificant fraction of the total amount that is required by the agriculturists, for the agricultural purposes and for their daily wants. Under such circumstances the landlords and the local *Sowcars* who had been carrying on the profession of lending money to the agriculturists, in the past, have stopped doing so owing to the possibility of the Government's interference and when the Government itself has not adequately provided for granting loans, at the critical times, there must be some agency to advance money for the agricultural operations and for the maintenance of the farmer's families, during the rainy season. This gap has been filled up by the *Palemode Sowcars*. They advance money generally to the extent of half the price of one *khandi* of inferior paddy (i.e., about 4 to 5 Rupees) and recover after 4 to 6 months, one *khandi* of paddy of superior quality, worth 14 to 15 Rupees. They never take back the amount in cash, but they always take paddy in lieu of the sum and the interest. This is the severest way of usury, for, for the period of 4 to 6 months, they get more than double the amount. In other words the interest for the sum that they advance comes to about 200 to 300 per cent. The *Sowcars* do not keep legal documents for such debts. This system is prevalent in every part of the Taluka. The agriculturists have become helpless and even though they realise that owing to this system, they are going to be totally ruined, they have no other alternative, but to fall a prey to this system. The *Sowcars*, who are following this lending profession, sometimes resort to brutal force, in order to recover their dues, may be by unconstitutional or even unlawful methods. Sometimes, they take away by force all the paddy that the agriculturists may have, in lieu of the sum that is advanced, but they are kind enough to advance some money immediately to the agriculturists by the *palemode* system for the payment of land revenue and such other requirements! Out of the

760 families, 167 families who are the members of the Co-operative Societies, i.e. about 22 per cent of the total families have been forced to take money on this system and there is every possibility that this percentage may have increased during the last three years. The following table gives the details about the *palemode* indebtedness.

TABLE No. 8

(*showing palemode indebtedness*)

Economic Groups	Total amount of debt	Total No. of khandis of paddy to be returned	Total No. of families indebted	Percentage of indebted families to the total No. of families
	Rs.			
A	1,097—0	139	10	12.2
B	7,626—8	926¾	133	27.8
C	554—8	69	24	12.2
All ...	9,278—0	1,134¾	167	21.9

It can be seen from the above table that Rs. 9,278 have been borrowed by 167 families of the three groups and in return they have to pay 1,134¾ *Khandis* of paddy, worth Rs. 18,556. The B group is mostly affected by this system, as out of the total 481 families, 133 families, that is, roughly 27.8 per cent of the total families have been affected by this system. Generally, the A group which is the land-owners' group cannot be seriously affected by this system as these families are not in a great necessity of paltry sums for their day-to-day maintenance. Nor can it affect very severely the C group, as a majority of those families are practically landless and as such they have no crops to offer. But what little they produce in their small pieces of land is also taken away by the *palemode Sowcars.* This is a terrible state of affairs and there is not the slightest ray of hope for any kind of prosperity for the agriculturists, who have taken debts of this nature, as long as they are under such lawless tyranny.

IV. Debts in kind :

The fourth kind of indebtedness is about the dealings in kind. During the rainy season, some of these families have no provision for their maintenance and naturally they approach the *Sowcars* for paddy necessary for their daily maintenance. They return one and half times the quantity that they may have borrowed, immediately after the harvest is over. In other words the rate of interest, if calculated, will be from 100 per cent to 150 per cent. The difference between this system and the *palemode* system is obvious. In this system the agriculturists approach the *Sowcars* who are mostly their landlords, for paddy for their daily maintenance. While in the *palemode* system, these people are forced to take money for their wants such as land improvement or for the agricultural operations, or for their daily maintenance from the *palemode Sowcars* and they have to pay back in kind. Here, once the agriculturist is involved in this kind of dealing, he has no chance of coming out of such transactions, but year after year he has to earmark his future yields for the sake of his daily necessities or for any other expenditure that he will have to incur during the year. Moreover, the dealings in kind will be very few as they are meant only for the consumption of paddy for themselves and for their families.

The following table gives the details about this type of indebtedness.

TABLE No. 9

(showing indebtedness in kind)

Economic Groups	No. of khandis received	No. of khandis to be returned	Total No. of families thus indebted	Percentage of such families to the total No. of families
A	...	...	...	...
B	63	94½	35	7.3
C	32	48	21	10.7
All ...	95	142½	56	7.3

Thus, it can be seen that this kind of indebtedness is prevalent in the B and C groups only. In the C group it is obviously at a higher percentage than in the B group, as these families are very poor and they have to approach the *Sowcars* for their daily necessities.

Tagavi debts :

Government loans to cultivators are made under the provisions of the two Acts, viz. The Land Improvement Loans Act of 1883 and The Agriculturists' Loan Act of 1884. The former Act is mainly concerned with the grant of loans for capital improvements, while the latter looks to the current needs of agriculture, as well as the special needs arising from any failure of crops due to floods or famines or events of a like nature. By the former Act, Government grants loans to land-holders who have complete rights over their lands, including the right to sell, for improvement in the land such as (i) constructions and repairs of wells, tanks etc., (ii) preparation of land for irrigation, levelling, embankment, fencing, clearing stones, clearing deep roots etc., (iii) drainage, (iv) reclamation of land from rivers and cultivable waste lands, (v) purchase of land to prevent or to cure fragmentation of land, (vi) purchase of farm cattle, fodder seed etc., (vii) planting of costly crops such as cocoanuts, cardamums and spices and (viii) for the purchase of manures, agricultural implements, pumps, water bags, ropes etc. By the latter Act, Government sanctions loans for the daily necessities of the farmers such as buying paddy for the maintenance of their families. But as is mentioned above, this Act is restricted almost entirely to emergencies occasioned by drought and flood.

Now, let us study the working of the first Act in our Taluka. There are in all nine persons to whom the Tagavi loan is sanctioned in the Taluka. Table No. 10 on page 135 gives the details.

From the table we can realise the actual conditions and the policy of the Government with regard to the granting of the Tagavi loans. These are the only nine cases wherein

TABLE No. 10

(showing the Tagavi debts)

No. of cases	Purpose of loan	Amount of debt applied for	Date of application	Amount of loan granted	Date of grant	In how many years the loan is to be recovered	Rate of interest	Amount to be repaid annually	Nature of Security
		Rs.		Rs.				Rs.	
1.	Improvement of land	125	2- 4-29	125	22-11-29	5 years	$6\frac{3}{4}$ p.c.	25 per year	Land worth Rs. 400
2.	„	300	14-12-29	220	20-11-30	4 „	$8\frac{1}{3}$ „	Rs. 50 for the first three years and Rs. 70 for the fourth year	„ „ Rs. 600
3.	„	200	6- 3-29	100	22-11-29	4 „	$6\frac{3}{4}$ „	25 per year	„ „ Rs. 400
4.	„	600	12- 2-29	400	22-11-29	8 „	$8\frac{1}{3}$ „	50 „ „	13 acres
5.	„	800	12- 7-29	800	6- 1-30	8 „	$6\frac{3}{4}$ „	100 „ „	29 acres
6.	„	200	21-12-31	75	5- 2-34	3 „	$8\frac{1}{3}$ „	25 „ „	2 acres and $19\frac{1}{2}$ gunthas
7.	„	2,000		2,000	13- 9-27	10 „	$6\frac{3}{4}$ „	200 „ „	72 „ and $16\frac{1}{2}$ „
8.	„	150	12-12-29	150	20-11-30	3 „	$8\frac{1}{3}$ „	50 „ „	3 „ and 38 „
9.	„	500	6- 7-31	150	14- 2-34	5 „	$8\frac{1}{3}$ „	30 „ „	3 „

the Tagavi loan has been granted since 1927. Out of these nine cases six had applied for loans in the year 1929, two in 1931 and it seems one in 1927. It is not known as to how many persons had applied for the Tagavi loans whose applications were rejected. But it seems that the Government has become very cautious in sanctioning such loans since 1930, which may be due to the fact that since this year the prices of the agricultural commodities have been very low, and the Government must have felt insecured in granting such kinds of loans. The agriculturists must have found themselves, owing to the fall in prices, unable to spend in any way on the improvement of the land. The result is that owing to the negligence of the land, it is day-by-day deteriorating.

Government generally takes a pretty long time in sanctioning such loans. In one case the date of application is not known. The loan was granted in the year 1927. In six cases the applications were made in the year 1929, but the loans were received after periods as follows. In three cases the loans were sanctioned after a period of 11 months and some odd days. In one case it was sanctioned after a period of 8 months and 16 days. In another case it was sanctioned after 7 months and 20 days and in the remaining case it was sanctioned after 5 months and 24 days. In two cases in which the loans were applied for, in the year 1931 the same were sanctioned after a period of 2 years and 17 days in one case and two years, seven months and eight days in the other case. It clearly shows that Government is extra cautious and extremely scrupulous in matters of sanctioning the Tagavi loans. It takes too much time in investigations of the merits of the cases, so much so, that the applicants get exasperated and the projects for which they apply become practically out-of-date. In two cases in which applications were made in the year 1931, i.e. when the prices were fallen down to a great extent, Government took more than two years to consider the merits of the cases! Such delay in granting the Tagavi loans is likely to create opportunities for

the lower-grade officers in the Revenue Department to exact some gratifications from the applicants !

The Government is also extra cautious in sanctioning the amount of loans, applied for, even though there is sufficient security to offer. The loan sanctioned in the year 1927, was the full amount that was applied for. In cases of the loans applied for, in the year 1929, three cases were such that the full amount applied for, was sanctioned. Out of the remaining three cases, in one case a reduction was made to the extent of 26.6 per cent, in the second case it was 50 per cent and in the third case it was to the extent of 33.3 per cent. Out of the two cases which were applied for in the year 1931, in one case a reduction was made to the extent of 62.5 per cent and in the other case, it was to the extent of 70 per cent. This reflects on the policy of the Government, after the year 1930. The two loans which were sanctioned, were sanctioned after a period of two years and the reduction in the amount that was applied for, was made to the extent of more than 60 per cent. This shows that the Government has been unwilling to grant Tagavi loans since 1930.

Thus, it can be seen that the Tagavi loans are playing a very insignificant part in relieving the agriculturists of their indebtedness. There are obvious defects. The most serious is the delay that takes place in disposing off the applications for these loans. There were complaints that the scheme of land improvement had to be put forward but that consolidation was delayed so long that it had ultimately to be dropped. As back as the nineties of the last century Dr. Vocekler, the eminent scientist guessed correctly the reasons for the failure of the Tagavi loans. He has remarked, "The cultivator will often prefer to resort to the money-lender because the latter gives him advance at once ; because he asks no questions ; he does not come round and see that the work is being carried out. He allows repayment at leisure and lastly he has no intermediaries who require to be fed." [1] Thus, that the Tagavi loans have not benefited the agricul-

[1] Dr. Vocekler—*Report on Agricultural Improvement*, p. 85.

turists materially, has been universally acknowledged. "It may be observed without contradictions that the advances are generally looked at askance by the ryots and therefore are not sufficiently availed of, because of the trouble, vexation and even blackmail to which they have to submit before the necessary advance applied for, is given. The Tagavi advances are merely a palliative and in a sense a help to the ryot to diminish the load of his indebtedness." [1]

If it is really intended to achieve some progress in matters of land improvement, it must be remembered that these loans should be popularised and for that, special efforts must be made. The inquiry that is held in the investigations, should be done rapidly and in no case more than a month or two should be wasted. The cultivators are generally illiterate and as such they are incapable of understanding the advantages of such loans over the other types of loans. They are sometimes unable to convince the Revenue Officers of their own ideas of the improvement of the lands and it is necessary that these officers should give sympathetic consideration to their ideas in friendly ways and try to help them in every possible way to clear up their outlook. In matters of the sanction of the loans, the possibility of having an increase in the production is taken into consideration. While judging this aspect some principles should be laid down according to which the net income, the standard of living, and the repaying capacities are to be estimated and it should not be left completely to the entire discretion of the local Revenue Officers. It generally happens that the Tagavi debtors, if they incur the displeasure of the local Revenue Officers, have to suffer heavily in matters of the progress of the work to be carried out. This should be checked, as far as possible, and the remarks passed by such officers should be carefully scrutinised by higher authorities and there should not be any injustice done to the debtors. The Government itself should come forward with new schemes for improving lands and the peasants should be persuaded to accept the loans to carry out the schemes. The

[1] Sir D. E. Wachha: *Indian Journal of Economics*, Vol. I, Part I.

instalments should be comparatively small and should be always in proportion to the repaying capacity and the extra yield that may be achieved, owing to the improvement in the land. The agriculturists should be made to realise the responsibilities of repayment and the instalments should be recovered along with the Land Revenue.

It seems that the Government rarely advances money according to the Agricultural Loan Act except in cases of emergency such as drought or famine. We have seen from table No. 8 that loans for domestic wants form 9.8 per cent in the A group, 16.3 per cent in the B group and 26.8 per cent in the C group. Now, if these families get loans for such purposes from the Government or from the Co-operative Societies for their domestic requirements on easy terms of repayment and at moderate rates of interest these people will be greatly relieved of their burden of indebtedness to an appreciable extent.

Total Debts :

We have seen from table No. 1 that the total debt of all these families from all the sources is Rs. 3,08,115-8. Table No. 11 on page 140 gives the frequency of debts in the three Economic groups.

From the table it can be seen that out of 760 families in the whole sample, 34 families are free from debt. In the A group the mode of indebtedness is Rs. 1,001-1,500, in B Rs. 301-400 and in C Rs. 51-100. We have seen that the incidence of indebtedness per family is Rs. 406 and Rs. 58 per individual. The incidence of indebtedness per family in the A group is Rs. 1,079, in B Rs. 401 and in C Rs. 138 ; the incidence per individual being Rs. 93, Rs. 58 and Rs. 29 respectively.

The rate of interest for the total debt is shown in table No. 12 on page 141.

From the table it can be seen that the highest amount borrowed in all the three groups is at 11 per cent

TABLE No. 11

(showing frequency of the total debts in the three Economic groups)

Frequency of debts	A		B		C		All	
	No. of families	Amount	No. of families	Amount	No. of families	Amount	No. of families	Amount
		Rs.		Rs.		Rs.		Rs.
Nil	4	...	15	...	15	...	34	...
1—50	...	...	21	873—0	29	904—0	50	1,777—0
51—100	2	165—0	46	3,793—8	58	4,274—0	106	8,132—8
101—150	4	537—0	52	6,695—0	33	4,290—8	89	11,522—8
151—200	2	367—0	50	8,911—8	29	5,095—8	81	14,374—0
201—250	4	916—0	35	8,084—8	10	2,213—0	49	11,213—8
251—300	3	873—0	35	9,673—0	5	1,381—0	43	11,927—0
301—400	4	1,431—0	60	20,789—8	8	2,716—8	72	24,937—0
401—500	5	2,378—0	49	21,977—8	2	900—0	56	25,255—8
501—600	5	2,884—0	19	10,340—0	4	2,185—8	28	15,409—8
601—700	5	3,376—0	16	10,318—0	1	620—0	22	14,314—0
701—800	7	5,430—0	20	15,030—0	2	1,501—0	29	21,961—0
801—900	3	2,533—0	14	11,760—8	...	...	17	14,293—8
901-1000	3	2,868—0	13	12,302—8	...	...	16	15,170—8
1001-1500	14	18,791—0	23	26,556—0	1	1,170—8	38	46,617—8
1501-2000	5	8,642—0	9	15,282—0	...	...	14	23,924—0
2001-2500	3	6,901—0	2	4,786—0	...	...	5	11,687—0
2501 and above	9	30,426—0	2	5,173—8	...	...	11	35,599—8
Total ...	82	88,518—0	481	1,92,346—0	197	27,251—8	760	3,08,115—8

TABLE No. 12

(showing rate of interest of the total debts)

Rate of Interest	A		B		C		All	
	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage
	Rs.		Rs.		Rs.		Rs.	
6¼ p.c.	1,800—0	2.0	1,600—0	.9	400—0	1.4	3,800—0	1.2
9 ,,	500—0	.6	2,100—0	1.1	...	...	2,600—0	.9
11 ,,	26,215—0	29.7	66,178—8	34.4	12,373—0	45.4	1,04,766—8	34.0
12½ ,,	12,430—0	14.0	24,496—0	12.8	4,138—0	15.3	41,064—0	13.3
15 ,,	5,350—0	6.0	8,778—0	4.6	1,743—0	6.4	15,871—0	4.1
18¾ ,,	12,703—0	14.4	29,412—0	15.3	3,001—0	11.0	45,116—0	14.7
25 ,,	6,497—0	7.4	22,564—0	11.8	3,078—0	11.1	32,139—0	10.4
33⅓ ,,	...	...	120—0	.1	...	...	120—0	.1
36 ,,	400—0	.4	100—0	.1	225—0	.8	725—0	.2
48 ,,	...	...	...	...	50—0	.2	50—0	negligible
50 ,, & above	1,097—0	1.2	8,508—8	4.0	1,002—8	3.7	10,608—0	3.3
Without interest ...	2,350—0	2.6	3,039—0	1.6	521—0	2.1	5,910—0	2.9
Instalments ...	19,176—0	21.7	24,410—0	12.8	600—0	2.2	44,186—0	14.3
Subjudice ...	...	...	595—0	.3	...	...	595—0	.3
Miscellaneous ...	...	...	445—0	.2	120—0	.4	565—0	.3
Total ...	88,518—0	100.0	1,92,346—0	100.0	27,251—8	100.0	3,08,115—8	100.0

and it is taken from the Co-operative Societies. In the A group this percentage is 29.7, in the B group 24.4, in the C group 45.4 and in the whole sample 34. Leaving aside these debts from the Co-operative Societies, the highest rate of interest in the A and B groups is 18¾ per cent and in the C group 12½ per cent. The amount that is settled to be paid by instalments without interest is higher in the A group than in the two other groups. It is 21.7 per cent in the A group and 12.8 in the B group, while in the C group it is only 2.2 per cent.

The purpose of indebtedness is very difficult to decide as it is not exactly known for what purposes the loans were taken from the Co-operative Societies. From my personal inquiry it was ascertained that the loans were taken from the societies mostly for unproductive purposes. If this is correct, the following table gives the percentage of the total debt for the productive and unproductive purposes.

TABLE No. 13

(showing proportion per cent of the productive and unproductive debts)

Purpose	A		B		C		All	
	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage
Productive	14,764-0	17.0	15,565-0	8.1	980-0	3.6	31,309-0	11.3
Unproductive	73,754-0	83.0	1,76,781-0	91 9	26,271-8	96.4	2,76,806-8	88.7
Total ...	88,518-0	100.0	1,92,346-0	100.0	27,251-8	100.0	3,08,115-8	100.0

It can be seen from the above table that out of the total debt, in the whole sample 11.3 per cent was borrowed for productive purposes while 88.7 per cent was borrowed for unproductive purposes. In the A group, the percentage of debt borrowed for productive purposes is 17.0, in the B group it is 8.1 and in the C group it is only 3.6.

Debts in relation to land :

Now, let us find the relation of indebtedness to the land that the three Economic groups owe and to the land that they cultivate. The following table explains the position.

TABLE No. 14

(showing relation of indebtedness to land)

Groups	Acres owned		Acres cultivated		Amount of debt	Debt per acre owned	Debt per acre cultivated
	A.	G.	A.	G.	Rs.		
A	1898	25¾	1633	20¼	88,518—0	46.6	54.2
B	1828	22½	3605	33¼	1,92,346—0	105.2	53.4
C	144	2½	485	30½	27,251—8	189.2	56.1
All ...	3871	10¾	5725	4	3,08,115—8	79.7	53.7

N.B.—A = Acres ; G = Gunthas.

Thus, it can be seen that on an average, all the three classes have to pay interest on the sum of Rs. 53.7 for each cultivated acre of land. This is a great burden, as, after deducting the Land Revenue, the cost of cultivation and the interest on the sum of Rs. 53.7 per acre, whatever will remain, will not be equal to the bare wages for their labour. The agriculturists will find some relief only if they are freed from their indebtedness. The debts per acre owned are respectively Rs. 46-6, Rs. 105-2 and Rs. 189-2, in the three Economic groups. It can be seen that in the C group the debts are practically equal to the value of the lands and as such it will be difficult, but not impossible to give any relief to this class, through some legal enactment or through the Land Mortgage Bank, unless the debts are scaled down. In the A and B groups there is every chance of giving entire relief to the agriculturists through the Land Mortgage Bank after scaling down the debts. We will come to this topic later on.

" Indebtedness is a familiar evil in all the agricultural communities but its worst results are seen in the countries

where peasant farming prevails."[1] India is essentially a country wherein the lands are in the hands of the few landlords and naturally this problem of indebtedness has become acute. It must be remembered that getting credit is of the supreme necessity for the agriculturists everywhere, as his capital is generally locked up in his lands and stocks and he can realise it only at the harvest time. But the fundamental objection to rural indebtedness in this country is that the bulk of indebtedness is incurred for unproductive purposes. The extreme poverty of the ryots is both a cause of his indebtedness and its effect and the origin of poverty and indebtedness is generally the same. The Indian peasants are chronically in debt, partly because of the inefficiency of their income and partly on account of improvidence and ignorance which are the characteristics of our peasant life. The agriculturists generally do not earn enough to maintain themselves even in a normal year and normal years are not too frequent in India. According to the Deccan Ryots Commission a good crop is obtained only once in three years, as an average. This leads to crop failure and borrowing becomes a family necessity. But as we have seen above, much of the indebtedness is for unproductive purposes. Such kind of indebtedness leads to agricultural inefficiency and it prevents orderly and profitable marketing and lastly it results in loss of property.

In short, it is very difficult to tackle the problem of indebtedness piecemeal and we will have to take into consideration all the problems both social and economic that govern the rural life.

[1] Prof. Radhakamal Mukerjee—*Economic Problems of Modern India*, Vol. I, p. 168.

CHAPTER VI

THE PROBLEMS OF CO-OPERATIVE MOVEMENT

Before the Act of 1904 for the establishment of Co-operative Credit Societies in India was passed, some suggestions were made to the Government, with a view to relieve the agriculturists of their indebtedness. For instance, Sir Syed Ahmed had suggested in his memorandum to the Famine Commission of 1880 to advocate the formation of the Agriculturists' Relief Banks in each District. The purposes of such banks were (i) to lend money to the agriculturists for purchasing seed, cattle, ploughs etc. and for the subsistence of tenants and their families ; (ii) to provide for sale to tenants, corn, cattle, ploughs and other agricultural implements. Later, in the year 1882, on the initiative of Justice Ranade and Sir William Wedderburn, the Government of India proposed to the Government of Bombay the experimental establishment of an Agricultural Bank in the Purandar Taluka, in the District of Poona for providing capital to agricultural classes on reasonable terms. The Secretary of State however did not approve of the recommendations and the scheme was accordingly dropped.[1]

As early as 1894 the Mysore Government became the pioneer in starting agricultural banks based on co-operative principles, not for the purpose of earning any profit divisible among its members, but for the purpose of obtaining money by their own united credit and lending it according to the actual requirements of each member and to the extent to which others had confidence in him. There were 64 banks in existence by 1898, in the Mysore State.

In 1904, the Government of India passed the Act X of 1904 for the establishment of Co-operative Credit Societies after prolonged investigations, conducted with the aid of official experts to determine the forms of relief and organization, calculated to rehabilitate the economic condition of

[1] M. G. Ranade—*Essays on Indian Economics*, p. 92.

the Indian agriculturists. The Act was modelled largely on English Friendly Societies Act and was restricted to credit co-operation. Although the Act was based upon the English Friendly Societies Act, it drew its inspiration from the German experiments of Raiffeisen and Schulze-Delitsch for there were many common points between the rural economy of India at the commencement of the 20th century and of Germany in the middle of the 19th century.

But later on, it was found that the Primary Credit Societies of the type established under the Act of 1904, could not, unaided by other organizations, derive financial subsistence from the rural areas, nor help the agriculturists to any appreciable extent. It was thus that the Act of 1904 was replaced by the Act of 1912, which provided not only for the formation of Central Credit Societies but also for the formation of Co-operative institutes of almost all types and for all purposes.

But little progress was shown till the dyarchy under the Motague-Chelmsford Reforms was introduced. During the Dyarchy the Co-operative Movement was a Transferred Subject under the control of a popular Minister and the Act was modified by different Provinces. It was modified by the Government of Bombay in the year 1925. The main difference between the scope of this Act and the previous Acts consists in widening the scope of the legislation. Whereas the two previous Acts were intended for only 'men of limited means' under this Act, societies could be formed of persons with common economic needs and its preamble refers to 'better living, better business and better methods of production' as the aims of the movement.

The Co-operative Movement was started in the Bhiwandi Taluka in the year 1926. During the year 1937-38 there were in all 38 Societies working. Out of these Societies one was started in the year 1926, one in 1927, eight in 1928, twelve in 1929 and sixteen in 1930. Three Societies which were started one in the year 1927, the other in 1928 and the third in 1929 are already liquidated.

Before we study the general effects of the Co-operative Movement on the economic and social conditions of our 760 families in the three Economic groups, let us see the actual working of these 38 Societies in the year 1937-38.

The share-capital of the Societies in the year 1937-38 was Rs. 15,844 ; the members' deposit was Rs. 954 ; the reserve fund was Rs. 3,390 and the undistributed profit was Rs. 5,682, making thus a total capital of Rs. 25,870.

Out of these 38 Societies one was placed in the A class, three in the B class, 16 in the C class and 18 in the D class.

The classification of Societies in India is generally guided by the standards laid down by the Registrars' Conference, 1926. In general, a Society is classed as 'A' if it is really good, works on co-operative lines, is sound financially and otherwise, requires no help from outside other than the annual audit and may serve as a model to other Co-operative Societies ; a Society is placed in class 'B' if it is generally in a sound and healthy condition and manages its own affairs ; it may, however, have a certain number of defaulters and may be short of perfection in co-operative spirit and education. A 'D' class Society is a bad Society which will be cancelled if it does not improve in classification within two years, and it is ineligible for receiving any kind of loan from the financing institution. All other Societies are grouped under 'C' class.[1]

Now, let us see the actual working of all the Societies. Table No. 1 on page 148 gives the details.

From the table it can be seen that out of a total of 861 members 803 members have taken loans from the Co-operative Societies ; of them 557 members are with assets and 246 members, i.e. nearly 31 per cent of the total borrowing members are without any assets. The total amount of debt including interest, that is due from these 803 members is, Rs. 1,42,802-4, thus giving an average debt of Rs. 177.8 per capita, borrowing. Of this sum, Rs. 1,12,574 are due from the members having assets and Rs. 30,228-4 are due from the

[1] *Review of the Co-operative Movement in India, Reserve Bank Bulletin* No. 7, p. 89.

TABLE No. 1

(showing total number of members and their debts)

Audit Classifications	Total No. of Societies	Total members			Borrowing members		Total debt			Amount of debt per capita borrowing	Amount of debt per capita (Total members)
		Borrowing	Non-borrowing	Total	With assets	Without assets	With members with assets	With members without assets	Total		
							Rs.	Rs.	Rs.		
A ...	1	24	2	26	22	2	2,400-14	163- 0	2,563-14	106.8	98.5
B ...	3	45	7	52	38	7	6,044- 2	547-13	6,591-15	146.5	126.8
C ...	16	329	17	346	228	101	50,343-12	14,331- 5	64,675- 1	196.6	186.8
D ...	18	405	32	437	269	136	53,785- 4	15,186- 2	68,971- 6	170.3	157.8
Total ...	38	803	58	861	557	246	1,12,574- 0	30,228- 4	1,42,802- 4	177.8	142.6

members having no assets. In the A class society the amount of debt including interest per capita borrowing is Rs. 106.8 ; in the B class Societies it is Rs. 146.5 ; in the C class Societies it is Rs. 196.6 and in the D class Societies it is Rs. 170.3. It can be also seen that the average debt per capita of the total members is Rs. 142.6. In the A class it is Rs. 98.5 ; in the B class it is Rs. 126.8 ; in the C class it is Rs. 186.8 and in the D class it is Rs. 157.8. It is thus clear that the Societies which are in a sound financial position have got less amount of borrowing per capita, than the Societies which are in a tottering position.

We have seen from the above table that Rs. 30,228-4 are due from the 246 members having no assets. The following table gives the details.

TABLE No. 2

(showing the dues of the landless members)

Audit Classifications	Total Members	Sum borrowed	Interest due	Total dues
		Rs.	Rs.	Rs.
A ...	2	150- 0	13- 0	163- 0
B ...	7	437- 8	110- 5	547-13
C ...	101	11,079- 9	3,251-12	14,331- 5
D ...	136	10,544- 3	4,641-15	15,186- 2
Total ...	246	22,211- 4	8,017- 0	30,228- 4

From the above table it can be seen that in the A class there are only two members without assets. The amount borrowed is only Rs. 150 and the interest that is due is Rs. 13. The rate of interest for the members of the Co-operative Societies is about 11 per cent and, therefore, it can be noticed that the interest due from these two families is less than one year's interest. It is thus clear that both the members are paying their interest regularly.

In the B class there are, in all, seven members having no assets and the sum that is borrowed by them is Rs. 437-8.

The interest due on this is Rs. 110-5 that is nearly 25 per cent of the sum borrowed. The following table gives the analysis of the sum and the interest due from these members according to the payment of interest.

TABLE No. 3

(showing the sum and the interest due in the B class)

Interest due upto	No. of cases	Sum	Interest	Total
		Rs.	Rs.	Rs.
No interest due ...	1	29-12	...	29-12
Interest due upto 1 year ...	2	177-12	8- 3	185-15
„ „ „ 2 years ...	1	95- 0	14-12	109-12
„ „ „ 3 years ...	...	...	...	...
„ „ „ 4 years ...	...	...	...	...
„ „ „ 5 years ...	...	...	...	...
„ „ above 5 years ...	3	135- 0	87- 6	222- 6
Total ...	7	437- 8	110- 5	547-13

The striking point about these debts is that none of them exceeds Rs. 100. Out of the three cases where the debts are more than Rs. 50, in two cases the interest is due for less than a year and in the third case it is due for less than two years. In the three cases where the interest is due for more than five years, the debts are less than thirty rupees. In the remaining case, wherein the interest is not due, the debt is only Rs. 29-12.

In the C class there are 101 members with a total debt of Rs. 14,331-5. Table No. 4 on page 151 gives the analysis of the sum and the interest due according to the number of years for which the interest is not paid.

The total interest due in all these cases is about 29.4 per cent of the sum borrowed. Out of these 101 members, 27 members, i.e. nearly 27 per cent have paid their interest fully. The interest is due upto one year in the case of 12 members, i.e. nearly 12 per cent of the members. It is due

TABLE No. 4

(showing the sum and the interest due in the C class)

Interest due upto	No. of cases	Sum	Interest	Total
		Rs.	Rs.	Rs.
No interest due ...	27	1,657- 5	...	1,657- 5
Interest upto 1 year ...	12	1,607- 0	115-10	1,722-10
„ „ 2 years ...	24	2,897-11	482- 2	3,379-13
„ „ 3 „ ...	11	853- 9	262- 0	1,115- 9
„ „ 4 „ ...	8	616- 0	249- 0	865- 0
„ „ 5 „ ...	8	773- 0	384- 0	1,157- 0
„ above 5 „ ...	11	2,675- 0	1,759- 0	4,434- 0
Total ...	101	11,079- 9	3,251-12	14,331- 5

for two years in the case of 24 members ; for three years in the case of 11 members ; for four years in the case of 8 members ; for five years in the case of 8 members and for more than five years in the case of the remaining 11 members. This is a disappointing state of affairs as all these members are landless and it will be difficult to recover the sum and the interest.

From the above table it can be seen that the total sum advanced to these 101 members is Rs. 11,079-9 and the interest that is due is Rs. 3,251-12. Table No. 5 on page 152 shows the frequency of the debts together with the interest due.

It can be seen from the table that out of 101 members in the C class, 61 members that is more than half the members of this class have debts upto Rs. 100 ; 19 members have debts between Rs. 100-200 ; 10 members between Rs. 200-300 ; 5 members between Rs. 300-400 ; 3 members between Rs. 400-500 and the remaining three members have debts over Rs. 500. There are six cases where the dues are more than Rs. 400 each and in none of these cases any interest is paid, during the last five days.

In the D class there are 136 members with a total debt

TABLE No. 5

(showing frequency of dues in the C class)

Frequency of dues	No interest due		Interest due for 1 year		Interest due for 2 years		Interest due for 3 years		Interest due for 4 years		Interest due for 5 years		Interest due for more than 5 years		Total	
	No. of cases	Sum	No. of cases	Sum	No. of cases	Sum	No. of cases	Sum	No. of cases	Sum	No. of cases	Sum	No. of cases	Sum	No. of cases	Sum
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Upto 25	5	108-7	...	...	...	...	1	22-9	...	...	2	35-0	...	...	8	166- 0
26-50	13	549-4	2	78- 0	2	73- 0	3	105-0	...	...	1	38-0	1	45-0	22	888- 4
51-100	4	310-0	3	243- 0	10	649-13	5	368-0	4	269-0	2	138-0	3	267-0	31	2,244-13
101-150	3	328-2	1	104- 0	4	493- 0	...	...	3	433-0	...	...	...	...	11	1,358- 2
151-200	2	361-8	1	167- 0	2	376- 0	...	...	1	163-0	1	192-0	1	193-0	8	1,452- 8
201-250	...	...	5	1,130-10	2	437- 0	...	...	...	...	1	230-0	...	...	8	1,797-10
251-300	...	...	...	...	1	266- 0	...	...	...	...	...	...	1	297-0	2	563- 0
301-350	...	...	...	...	1	317- 0	2	620-0	...	...	...	...	...	...	3	937- 0
351-400	...	...	...	...	2	768- 0	...	...	...	...	...	...	...	...	2	768- 0
401-450	...	...	...	...	...	...	...	...	...	...	...	...	2	813-0	2	813- 0
451-500	...	...	...	...	...	...	...	...	...	...	...	...	1	491-0	1	491- 0
over 500	...	...	...	...	...	...	...	...	...	...	1	524-0	2	2,328-0	3	2,852- 0
Total ...	27	1,657-5	12	1,722-10	24	3,379-13	11	1,115-9	8	865-0	8	1,157-0	11	4,434-0	101	14,331- 5

of Rs. 15,186-2 including interest. The following table gives the analysis of the sum and the interest due, according to the number of years for which the interest is not paid.

TABLE No. 6

(showing the sum and the interest due in the D class)

Interest due upto	No. of cases	Total sum	Interest	Total
		Rs.	Rs.	Rs.
No Interest due ...	6	288- 9	...	288- 9
Interest due upto 1 year ...	17	1,352- 4	91-13	1,444- 1
„ „ „ 2 years ...	24	1,583- 9	257- 6	1,840-15
„ „ „ 3 „ ...	19	1,254- 5	371- 1	1,625- 6
„ „ „ 4 „ ...	20	1,400-12	549-12	1,950- 8
„ „ „ 5 „ ...	8	637- 4	319- 8	956-12
„ „ above 5 years...	42	4,027- 8	3,052- 7	7,079-15
Total ...	136	10,544- 3	4,641-15	15,186- 2

The total interest due in all these 136 cases is about 44 per cent of the sum borrowed. There are only six members, i.e. nearly 4.4 per cent of the total members who have paid their interest fully. There are 17 members who have not paid their interest for one year ; 24 members, i.e. 17.6 per cent for two years ; 19 members, i.e. 14 per cent for three years ; 20 members, i.e. 15 per cent for four years ; 8 members, i.e. 5.9 per cent for five years and 42 members, i.e. 30.1 per cent for a period of more than five years. It can be seen from the above table that nearly half of the total debt is locked with these 42 defaulters who have not paid any interest for a period of more than five years.

From the above table it can be seen that the debt including the interest, of these 136 members is Rs. 15,186-8. Table No. 7 on page 154 gives the frequency of these debts.

It can be seen from the table that out of 136 members of the D class having no assets, 90 members, i.e. 66.2 per cent have debts upto Rs. 100. 29 members, i.e. 21.3 per cent have debts between Rs. 100-200 and the remaining 17 members, i.e. 12.5 per cent of the total members have

TABLE No. 7

(showing frequency of debts in the D class)

Frequency of the dues	No interest due		Interest due for 1 year		Interest due for 2 years		Interest due for 3 years		Interest due for 4 years		Interest due for 5 years		Interest due for more than 5 years		Total	
	No. of cases	Sum	No. of cases	Sum	No. of cases	Sum	No. of cases	Sum	No. of cases	Sum	No. of cases	Sum	No. of cases	Sum	No. of cases	Sum
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Upto 25	...	...	3	65- 4	1	15- 0	...	...	1	14- 0	...	48-11	...	...	5	94- 4
26- 50	5	188- 9	4	132-12	3	114- 9	5	177-12	4	164-10	1	308- 9	5	222- 0	27	1,048-15
51-100	1	100- 0	6	407-11	11	682- 4	8	483- 5	8	585-12	4	147- 8	20	1,616- 6	58	4,183-15
101-150	...	...	2	251- 2	9	1,029- 2	5	581-12	4	500-14	1	...	4	507-15	25	3,018- 5
151-200	...	...	...	...	...	...	...	...	...	...	...	452- 0	4	688-10	4	688-10
201-250	...	...	...	...	...	...	...	...	2	412-15	2	...	1	245- 0	5	1,109-15
251-300	...	...	1	276-12	...	...	...	...	1	272- 5	...	...	1	257- 0	3	806- 1
301-350	...	...	1	310- 8	...	...	...	...	...	...	...	...	1	331- 0	2	641- 8
351-400	...	...	...	...	...	...	1	382- 9	...	...	...	...	1	385- 0	2	767- 9
401-450	...	...	...	...	...	...	...	...	...	...	...	...	1	414- 0	1	414- 0
451-500	...	...	...	...	...	...	...	...	...	...	...	...	3	1,431- 0	3	1,431- 0
over 500	...	...	...	...	...	...	...	...	...	...	...	...	1	982- 0	1	982- 0
Total ...	6	288- 9	17	1,444- 1	24	1,840-15	19	1,625- 6	20	1,950- 8	8	956-12	42	7,079-15	136	15,186- 2

debts more than Rs. 200. There are five members whose total debt is Rs. 2,827, i.e. 18.6 per cent of the total debt and who have not paid the interest for a period of more than five years.

There are in all 246 members in all the four classes having no assets and their total debt is Rs. 30,228-4. Out of these members, 160 members, i.e. 65 per cent have debts less than Rs. 100 each and the amount of debt is Rs. 9,333, i.e. 30.8 per cent of the total debt and 58 members, i.e. 23.6 per cent of the total members have debts between Rs. 100-200 each and the total debt is Rs. 6,517-9, i.e. 21.6 per cent of the total debt and the remaining 28 members, i.e. 11.4 per cent of the total members have debts more than Rs. 200 each and their total debt is Rs. 14,377-11, i.e. 47.6 per cent of the total debt. There are 11 members whose total debt is Rs. 6,983, i.e. 23.1 per cent of the total debt, who have not paid any interest for a period of five years and above.

We have seen from table No. 1 that there are 803 borrowing members of the Co-operative Societies and out of them 246 members have no assets. The remaining 557 members have assets. The following table shows the classification of these members and their debts according to the different audit classifications.

TABLE No. 8

(showing total debts of the members with assets)

Audit Classifications	Total Members	Sum	Interest	Total	Total value of assets
		Rs.	Rs.	Rs.	Rs.
A ...	22	2,190- 0	210-14	2,400-14	19,478- 0
B ...	38	5,746- 9	297- 9	6,044- 2	43,649- 0
C ...	228	40,825-12	9,518- 0	50,343-12	2,05,023- 0
D ...	269	40,448- 9	13,336-11	53,785- 4	1,66,675- 0
Total ...	557	89,210-14	23,363- 2	1,12,574- 0	4,34,825- 0

From the above table it can be seen that in the A class the interest due is Rs. 210-14 on the sum of Rs. 2,190, which comes to nearly 9.6 per cent, i.e. less than the interest for one year on an average as the rate of interest is about 11 per cent. In the case of the B class the interest due is Rs. 297-9 on the sum of Rs. 5,746-9, i.e. nearly 5.2 per cent which shows that the interest is due for a period less than one year, on an average. So, it is obvious that the members of both these classes are regularly paying their interest. In the C class the interest due is Rs. 9,518 on the sum of Rs. 40,825-12 which amounts to 23.3 per cent, i.e. the interest for the period of less than three years. There are in all 16 Societies in this class out of which in four Societies the interest is due upto 10 per cent that is less than one year's due ; in five Societies the interest that is due is upto 20 per cent that is less than the interest for two years ; in three Societies the interest is due to the extent of 30 per cent, i.e. less than the interest for three years and in the remaining four Societies, the interest due is upto 40 per cent of the sum, i.e. less than the interest for the period of four years. In the D class the total amount of interest that is due is Rs. 13,336-11 on the sum of Rs. 44,448-9, that is to the extent of 33 per cent that is, the interest for the period of three years. There are in all 18 Societies in this class out of which in one Society the interest is due upto 10 per cent, i.e. less than one year's interest. In three Societies it is due to the extent of 20 per cent that is less than two years' interest ; in 6 Societies it is due to the extent of 30 per cent that is less than three years' interest ; in 5 Societies it is due to the extent of 40 per cent that is less than four years' interest and in three Societies the interest that is due is more than 50 per cent, i.e. the interest due for more than five years.

But all these members have assets. The following table shows the relation of the debts to the value of the assets. The value of the assets is taken from the Office of the Co-operative Bank, Bhiwandi Branch.

TABLE No. 9

(showing the relation of the debt with the value of the assets of all the classes)

Debt in relation to the value of assets	A			B			C			D			Total		
	No. of cases	Total debt	Total value of assets	No. of cases	Total debt	Total value of assets	No. of cases	Total debt	Total value of assets	No. of cases	Total debt	Total value of assets	No. of cases	Total debt	Total value of assets
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
Upto A (upto the value of the assets)	2	137- 0	110- 0	3	252- 3	57- 0	40	8,506-13	4,317-0	48	13,828- 7	5,949-0	93	22,724- 7	10,433-0
Upto 2A	...	...	...	3	525- 8	838- 0	36	10,731-15	19,018-0	56	12,547- 5	16,639-0	95	23,804-12	36,495-0
„ 3A	1	72- 0	185- 0	1	234- 0	601- 0	29	7,553- 5	20,854-8	36	7,800-10	22,091-0	67	15,659-15	43,731-0
„ 4A	1	110- 0	377- 0	3	296- 0	976- 0	24	5,727- 4	19,248-0	26	5,070-15	17,144-0	54	11.204- 3	37,745-0
„ 5A	5	434- 0	1,975- 0	6	779- 8	3,574- 0	25	4,984-12	22,450-0	18	3,388-12	15,186-0	54	9,587- 0	43,185-0
„ 6A	2	245- 0	1,410- 0	2	426-12	2,299- 0	11	1,724-15	8,970-0	17	3,184- 3	16,434-0	32	5,580-14	29,113-0
„ 7A	3	379- 0	2,386- 0	5	542- 1	3,527- 0	12	1,690-12	10,949-0	9	972- 1	6,375-0	29	3,583-14	23,237-0
„ 8A	2	219- 0	1,635- 0	2	602-11	4,446- 0	9	2,665- 6	19,268-0	13	2,157- 2	15,338-0	26	5,644- 3	40,687-0
„ 9A	1	110- 0	978- 0	7	1,138-13	9,575- 0	3	786- 0	6,756-0	9	1,182-12	9,541-0	20	3,217- 9	26,850-0
„ 10A	...	...	...	1	225- 0	2,139- 0	9	638-11	5,982-0	12	1,648- 9	14,742-0	22	2,512- 4	22,863-0
„ 11A	3	476-14	5,626- 0	2	402-13	4,567- 0	15	1,547-14	16,292-0	16	1,667- 2	19,072-0	38	4,094-11	45,557-0
„ 12A	1	164- 0	2,650- 0	2	597-13	10,583-0	4	331-12	5,240-0	4	293- 6	7,020-0	11	1,386-15	25,493-0
over 20A	1	54- 0	2,146- 0	1	21- 0	467- 0	11	3,354- 5	45,679-0	3	44- 0	1,144-0	16	3,573- 5	49,436-0
Total ...	22	2,400-14	19,478-0	38	6,044-2	43,649-0	228	50,343-12	2,05,023-0	269	53,785- 4	1,66,675-0	557	1,12,574- 0	4,34,825-0

In the above table the debts have been arranged in relation to the value of the assets of the members of the four different classes. For instance in the first case the debts are such as are upto the value of the assets these members possess. In the second case the value of the assets of these members is approximately twice the debts that they owe to the Societies, in the third case, it is three times and so on.

Thus, we find that the total value of the assets of all these 557 members is nearly four times that of their debts. In the A class it is nearly eight times, in the B class it is nearly seven times, in the C class it is nearly four times and in the D class it is nearly three times. There are in all 93 members out of these 557 members in all these classes, i.e. nearly 17 per cent whose debts are less than the total value of their assets. In the A class there are only two cases of this type, in the B class, there are only three cases, in the C class there are 40 cases, i.e. nearly 17.5 per cent of the total members and in the D class there are 48 cases, i.e. nearly 17.8 per cent. This shows that in the C and D classes there is a higher percentage of members whose debts are less than the total value of their assets. In the A class there are 15 members, i.e. nearly 68.2 per cent having assets worth upto ten times of their debts. In the B class there are 30 such members, i.e. nearly 78.9 per cent of the total members ; in the C class there are 158 such members, i.e. nearly 69.3 per cent and in the D class there are 244 such members, i.e. nearly 83.3 per cent. There are very few members having assets worth more than ten times the debts. In the A class there are five such members, i.e. nearly 22.7 per cent ; in the B class there are also five members, i.e. 13.2 per cent of the total members ; in the C class there are 30 members, i.e. 13 per cent and in the D class there are 25 members, i.e. nearly 9.3 per cent. So, it is clear that the financial position of the members of the A and B classes is comparatively better than the members of the C and D classes.

It can be seen from tables Nos. 2 and 8 that the total sum borrowed by all the four classes is Rs. 1,11,442-2. Out

of this sum Rs. 95,749, i.e. nearly 85.9 per cent is left overdue. The following table shows the total amount that is overdue in the four classes and also the period for which it is left overdue.

TABLE No. 10

(showing debts overdue of the members of the four classes)

Audit Classi-fications	Debts overdue for the period of					
	One year	Two years	Three years	Five years	Above five years	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
A	...	...	...	50-0	...	50-0
B	660-0	...	...	...	135-0	795-0
C	8,175-0	4,556-0	3,226-0	14,193-0	13,466-0	43,616-0
D	9,267-0	5,899-0	4,319-0	7,151-0	24,652-0	51,288-0
Total ...	18,102-0	10,455-0	7,545-0	21,394-0	38,253-0	95,749-0

From the above table it can be seen that in the A class there are no debts left overdue except in one case where the amount of debt left overdue is only Rs. 50 and it is so left for the period of 5 years. In the B class out of the debt of Rs. 795, Rs. 660 are left overdue for one year only and the remaining sum of Rs. 135 is left overdue for a period of more than 5 years. In the C class out of the sum of the total debt of Rs. 43,616 that is left overdue, the sum of Rs. 8,175, i.e. nearly 18.8 per cent is left overdue for one year, the sum of Rs. 4,556, i.e. 10.4 per cent is left for two years, the sum of Rs. 3,226, i.e. 7.4 per cent is left for three years ; the sum of Rs. 14,193, i.e. 32.5 per cent is left for 5 years and the remaining sum of Rs. 13.466, i.e. 30.9 per cent is left overdue for a period of more than five years. So, it can be seen that the debt that is left overdue upto three years is Rs. 15,957, i.e. 35.6 per cent of the total debt and the remaining debt of Rs. 27,659, i.e. 64.4 per cent is left overdue for the period of more than three years. It shows that a greater

percentage of debt is left unpaid for a period of more than three years.

In the D class, out of the total debt of Rs. 51,288 that is left overdue the sum of Rs. 9,267, i.e. 18.7 per cent is left overdue for one year ; the amount of Rs. 5,899, i.e. 11.3 per cent is left overdue for two years ; the amount of Rs. 4,319, i.e. 8.4 per cent is left overdue for three years ; the amount of Rs. 7,151, i.e. 13.9 per cent is left overdue for 5 years and the remaining sum of Rs. 25,652 that is 47.7 per cent is left overdue for a period of more than 5 years. Thus the sum of Rs. 19,485, i.e. 38.4 per cent is left overdue for a period of three years and the remaining sum of Rs. 31,803, i.e. 61.6 per cent is left overdue for a period of more than three years. It can also be noted that the debts overdue for a period of more than five years in the D class is much higher than those in any other classes.

The total number of families that we have studied in our survey is 760 and out of these families 721 families are members of the Co-operative Societies. These families are chosen from the 861 families mentioned in table No. 1. The following table gives the details.

TABLE No. 11

(showing members and non-members of the Societies in the three Economic groups)

Economic groups	Total No. of families studied			Total number of families who are the members of the Co-operative Societies		
	Members of the Societies	Non-members of the Societies	Total	Members who have taken debt from Co-op. Societies	Members who have not taken debt from Co-op. Societies	Total
A ...	73	9	82	67	6	72
B ...	461	20	481	446	15	461
C ...	187	10	197	171	16	187
All ...	721	39	760	684	37	721

Out of the 760 families of the three Economic groups, 721 are members of the Co-operative Societies and out of them 684 are indebted to the Co-operative Societies. The total debt of these 684 families is Rs. 1,04,766-8 including interest. The following table gives the details.

TABLE No. 12

(showing the sum borrowed by and the interest due from the three economic groups)

Economic Groups	Total number of families	Sum borrowed	Interest due	Total
		Rs.	Rs.	Rs.
A ...	67	22,440—0	3,775—0	26,215—0
B ...	446	55,603—8	10,575—0	66,178—8
C ...	171	10,113—8	2,259—8	12,373—0
All ...	684	88,157—0	16,609—8	1,04,766—8

Thus, the average debt per family in the whole sample is Rs. 153.2. In the A group it is Rs. 391, in B Rs. 146 and in C Rs. 73. Out of the total debt the A group owes 25 per cent, the B group 63 per cent and the C group 12 per cent.

The total interest due from these 684 families is Rs. 16,609-8, on the sum of Rs. 88,157, i.e. nearly 18.8 per cent of the sum borrowed. In the A group it is 17 per cent, in B 19 per cent and in C 22 per cent. Table No. 13 on page 162 gives the details about the interest that is overdue in the three Economic groups.

It can be seen that out of a total of 684 families 307 i.e. 44 per cent have paid their interest fully. In the A group this percentage is 56.9, in B 47.2 per cent and in C 33.9 per cent. In 259 families in the whole sample, i.e. nearly 37.9 per cent of the total families the interest due is upto 37½ per cent of the sum borrowed. In the A group this percentage is 29.9 per cent, in B 37.9 and in C 40.9 per cent. The remaining 118 families in the whole sample, i.e. 18.1 per cent, have

TABLE No. 13

(showing the amount of interest in relation to the sum borrowed in per cent)

Families having interest in arrears	A	B	C	All
Nil	38	211	58	307
0 p.c. — 12½ p.c.	5	62	22	89
12½ „ — 25 „	10	71	35	116
25 „ — 37½ „	5	36	13	54
37½ „ — 50 „	2	35	23	60
50 „ — 62½ „	3	24	10	37
62½ „ — 75 „	4	4	8	16
75 „ — 87½ „	...	3	2	5
87½ „ — 100 „	...	...	...	...
Total ...	67	446	171	684

interest due which is more than 37½ per cent of the sum borrowed. In the A group this percentage is 13.2 in B 14.9 and in C 25.2 per cent. Thus, it is obvious that in the C group the interest is due for a longer period than in the other two classes.

So, it is evident that co-operation has failed in the Taluka. There are various reasons. It has been imposed on the people from above and that there is a great deal of official interference. On an average the masses are illiterate and they have not grasped even the broad principles of the Co-operative Movement. Some members have exploited the Co-operative Societies for their own benefits. They have induced the cultivators to take loans from the Societies and when the loans have been sanctioned they have demanded the sums in repayment of their old frozen debts. The Societies are mainly credit supplying agencies as they stand today, for the short-term agriculutural needs of the peasants. They are unable to cater for all the needs of the agriculturists and the money-lenders get a free field to entrap them and once they fall into their clutches, it is not easy for them to get out. Again, local politics and factions have also had their share in the mismanagement of the Societies and thereby

the movement has degenerated into parties trying to trick each other.

Another reason for the failure of the Co-operative Movement is the lack of provision for long-term credit. This long-term credit problem, is the problem of affording the minimum essential credit on the best possible terms, to agriculturists with very limited repaying capacity and of adjusting the burden of their old debts in such a way that it does not permanently hamper their future operations. Besides, "the greatest hope of the agricultural India lies", as the Agricultural Report has pointed out, "in the adoption of some form of intensive cultivation which will result in maximum agricultural production". Thus, the problem of land improvement is closely connected with the problem of making long-term credit facilities available on fair and reasonable terms, as abroad. The only institution that can mobilize this form of credit and adequately provide long-term capital, at a low rate of interest is the Land Mortgage Bank.

The Societies in the Taluka that are working have got only one purpose and that is credit. But it is necessary that the movement should not give its attention to one factor only; it must also cater for all the wants of the members. For that, all these Societies should be converted into multi-purpose Societies and the Village Co-operative Bank should be made a universal provider. "For whatever apparent purpose a Society is started it must serve as a point of contact and gradually other purposes must be developed so that ultimately the whole man is dealt with. That should be the goal set before itself by the movement.[1]"

In conclusion, it can be said that the movement has failed in the Taluka only because it has not brought within its ambit all the necessary requirements of the farmers and it has failed to provide for long-term credit. It is possible to put the movement in the Taluka on a sound footing, after liquidating all the debts of these families, taken from all the *Sowcars*. We will discuss this point in details in the

[1] *Reserve Bank of India Bulletin* No. 1, p. 16.

last chapter, taking into consideration the total assets of the families. Co-operation is not suggested as a panacea for all ills. But this much must be remembered that no other single scheme affords to ameliorate the lot of Indian peasant. As in the words of Prof. V. G. Kale, in his presidential address at the Bihar and Orissa Co-operative Federation Congress in February 1937, "Rural organization for improvement will assuredly succeed better if it is placed on a co-operative basis. The spirit of co-operation is vital to organize reconstruction and progress in rural areas . . . Societies are the best if not the only existing agency for the expansion and enforcement of permanent measures for Rural Reconstruction."

CHAPTER VII

INCOME AND EXPENDITURE OF THE FAMILY

I. Income of the Family :

The income of the family considered here is the annual income. Paddy-growing is the main occupation of all these families and the main source of income is the sale of the surplus paddy which is marketed after the harvest season. Generally the agriculturists consume the inferior type of paddy and sell the superior type. In the year 1937-38, the market prices were Rs. 15 per *khandi* for the superior type and Rs. 10 for the inferior type. The incomes from the subsidiary occupations were calculated per annum as it was not possible to collect the monthly account of the family.

Out of the total 760 families 756 have agriculture as their main occupation and the remaining 4 families have their hereditary professions. One of them is a *Chambhar*, one is a *Dhangar* and two are *Lohars*. Of these 760 families, 367 have got some kind of subsidiary sources of income. Table No. 1 on page 166 gives the details.

Thus, out of 760 families 367 have some kind of subsidiary occupations. The rest 393 families i.e., nearly 51.8 per cent, have no subsidiary occupations and they have to depend entirely on their main occupation. In the A group out of 82 families, 44, i.e. 53.6 per cent ; in the B group out of 481 families, 271 that is nearly 56.4 per cent and in the C group, out of 197 families, 78, i.e. 39.7 per cent have no subsidiary occupations.

It is thus clear that in the A and B groups more than half of the families have no other occupations except their main occupation. The agricultural operations generally last for six months and obviously for the remaining six months, these families have to be idle. In the C group, out of 197 families, 119, i.e. 60.3 per cent have subsidiary sources of income. The income of these families from the main source is quite

TABLE No. 1

(showing different kinds of subsidiary occupations)

	Subsidiary occupation	A	B	C	All
1	Carting	17	121	24	162
2	Casual labour	...	7	74	81
3	Service	2	13	2	17
4	Trade	4	8	3	15
5	Dairy	2	9	1	12
6	Vatan	...	7	5	12
7	Vegetable growing	2	9	...	11
8	Earthen ware	...	9	1	10
9	Carpentary	...	6	3	9
10	Priesthood	3	3	...	6
11	Oil-pressing	...	3	3	6
12	Money-lending	5	...	...	5
13	Shoe-making	...	4	...	4
14	Toddy tapping	...	4	...	4
15	Brokerage	...	2	1	3
16	Contract	3	...	...	3
17	Shaving	...	1	1	2
18	Iron smithy	...	2	...	2
19	Gold smithy	...	1	...	1
20	Fishing	...	...	1	1
21	Poultry keeping	...	1	...	1
	Total	38	210	119	367

insufficient for their needs and they depend upon casual labour for their maintenance. Out of the 119 families who have got subsidiary occupations 74, i.e. 62.2 per cent depend upon casual labour.

Looking into the nature of the subsidiary occupations, it can be seen from table No. 1 that in the whole sample out of 367 families (i.e. 48.2 per cent of the whole sample) having subsidiary occupations, 162, i.e. 21.3 per cent of the whole sample have "carting" as their subsidiary occupation. 81 families (out of which 74 families are from the C group), i.e. 10.6 per cent, have casual labour as their subsidiary occupation and 43 families, i.e. nearly 5.7 per cent, have their hereditary occupations as their subsidiary occupations and the rest 81 families, i.e. nearly 10.6 per cent, have other sorts of subsidiary occupations. This clearly shows the paucity of

subsidiary occupations in this tract, which we will discuss later on.

The different kinds of occupations, mentioned above, can be arranged according to the broad divisions of the village industries. The following table gives the details.

TABLE No. 2

(showing different divisions of occupations)

Economic groups	Main occupations			Subsidiary occupations						
	Agriculture	Hereditary occupations	Total	Transport	Labour	Industry	Agriculture	Trade	Others	Total
A ...	82	...	82	17	...	...	5	4	12	38
B ...	477	4	481	121	7	30	20	8	24	210
C ...	197	...	197	24	74	8	2	3	8	119
All ...	756	4	760	162	81	38	27	15	44	367

From the above table it can be seen that except four families in the B group which depend upon their hereditary occupations, all the other families have agriculture as their main occupation. Out of these 760 families, 367 have some kind of subsidiary occupations. Of these, 162 families, i.e. nearly 41.4 per cent are following "transport"; 38 families, i.e. 10.3 per cent are following "industry"; 81 families, i.e. 22.1 per cent follow "labour" and the remaining 86 families, i.e. 26.2 per cent follow other kinds of subsidiary occupations. In the A and B groups the important subsidiary occupation is transport. In the A group, out of 34 families, 17, i.e. 44.9 per cent follow this occupation and in the B group out of 210 families, 121, i.e. nearly 57.6 per cent follow this subsidiary occupation. In the C group the important subsidiary occupation is "casual labour", i.e. the one occupation however precarious and badly paid, which is open to persons without any capital and, perhaps, skill and out of 119 families, 74, i.e. nearly 63.9 per cent follow this subsidiary occupation.

The following table gives the average annual income per family per capita.

TABLE No. 3

(showing annual income per family per capita)

Economic groups	Total income from main occupations	Total income from subsidiary occupations	Total income	Income per family	Income per capita
	Rs.	Rs.	Rs.	Rs.	Rs.
A ...	86,822	11,535	98,357	1,199.5	103.3
B ...	1,26,722	40,804	1,67,526	348.3	50.2
C ...	14,133	20,504	34,637	175.8	36.2
All ...	2,27,677	72,843	3,00,520	395.4	57.4

The average annual income per family in the whole sample is Rs. 395.4. In the A group it is Rs. 1,199.5, in B Rs. 348.3 and in C Rs. 175.8. Thus, the average income of the A group per family is nearly $3\frac{1}{2}$ times that of the average income of the B group and nearly seven times that of the C group. The average annual income per capita of the A group is twice the average income per capita of the B group and thrice the average income per capita of the C group.

In the above table income per capita is calculated on the basis of the total population of the three Economic groups. But it is necessary to find out the income per capita with children reduced to the adult equivalent. The Inter Allied Scientific Food Commission has adopted the following scale, viz. male over 14 is equal to 1.00 adult ; female over 14 is equal to 0.83 adult and child below 14 is equal to 0.67. According to this ratio the income per capita in the three Economic groups is shown on page 169, table No. 4.

From the table it can be seen that the income per capita in the A group after reducing children and females to adult equivalents, is Rs. 128.7 ; in the B group Rs. 61.7 and in the C group Rs. 44.7. Thus the average annual income per capita of the A group is about twice the average income

TABLE No. 4

(showing annual income per capita reducing children and women to the adult equivalents)

Economic Groups	Income from the main occupation	Income from the subsidiary occupations	Total income	Total families	Population			Total	Total adults	Income per capita
					Male adults	Female adults	Children			
	Rs,	Rs.	Rs.							Rs.
A ...	86,822	11,535	98,357	82	260	256	436	952	764	128.7
B ...	1,26,722	40,804	1,67,526	481	938	991	1,409	3,338	2,705	61.9
C ...	14,133	20,504	34,637	197	273	276	408	957	795	44.7
All ...	2,27,677	72,843	3,00,520	760	1,471	1,523	2,253	5,247	4,244	170.8

per capita of the B group and is about thrice the average income per capita of the C group.

II Family Budgets :

Out of the 760 families that are studied in this survey, we have collected information of the family budgets of 527 families. These families are homogeneous families differing only in respect of income. The following table shows the total number of persons in these families.

TABLE No. 5

(showing number of persons in the families whose budgets are collected)

Economic groups	No. of families under survey	No. of families whose budgets are collected	Total number of persons			
			Male adults	Female adults	Children	Total
A	82	55	173	185	253	611
B	481	347	734	768	914	2,416
C	197	125	162	175	206	543
All	760	527	1,069	1,128	1,373	3,570

Thus, the average number of persons per family in these 527 families is 6.8. In the A group it is 11.1 ; in the B group 6.9 and in the C group 4.4.

The information regarding expenditure on the various items finding a place in the family budget was collected for the following groups : (i) Foodstuffs (ii) Condiments (iii) Tea, Sugar and Tobacco (iv) Clothing (v) Milk (vi) Medicine (vii) Religious and (viii) Miscellaneous.

Table No. 6 on page 171 gives the total and average expenditure in the three Economic groups, according to the various items.

TABLE No. 6

(showing total amounts of expenditure on various items)

Items of expenditure	A		B		C		All	
	Total expenditure	Per-centage	Total expenditure	Per-centage	Tota expenditure	Per-centage	Total expenditure	Per-centage
	Rs.		Rs.		Rs.		Rs.	
Foodstuff	22,977	47.3	83,926	53.8	17,205	60.6	1,24,108	53.2
Condiments	7,034	14.5	17,849	11.5	2,581	9.1	27,464	11.7
Tea, sugar and tobacco	5,834	11.9	15,539	9.9	2,457	8.6	23,830	10.3
Clothing	5,459	11.2	15,996	10.2	2,465	8.7	23,920	10.2
Milk	889	1.8	3,422	2.2	435	1.5	4,746	2.0
Medicine	1,721	3.6	4,063	2.6	743	2.6	6,527	2.8
Religious ceremonies	886	1.8	3,332	2.1	660	2.3	4,878	2.1
Miscellaneous	3,845	7.9	11,992	7.7	1,850	6.6	17,687	7.7
Total	48,645	100.0	1,56,119	100.0	28,396	100.0	2,33,160	100.0

It can be seen from tables Nos. 5 and 6 that the average expenditure per family per annum comes to Rs. 442.4. In the A group it is Rs. 884.5 ; in the B group Rs. 449.9 and in the C group Rs. 227.2. The average expenditure per annum per capita in the whole sample is Rs. 65.4. In the A group it is Rs. 79.6 ; in B Rs. 64.6 and in C Rs. 52.3.

But the average expenditure per annum per capita, after reducing the children to adult equivalents according to the Inter Allied Scientific Food Commission is as follows.

TABLE No. 7

(showing average expenditure per capita per annum of the adults equivalents)

Economic groups	Total expenditure	No. of families	Population				Total adults	Average expenditure per capita
			Male adults	Female adults	Children	Total		
	Rs.							Rs.
A	48,645	55	173	185	253	611	497	97.9
B	1,56,119	347	734	768	914	2,416	1,983	80.4
C	28,396	125	162	175	206	543	445	63.9
All	2,33,160	527	1,069	1,128	1,373	3,570	2,925	79.7

Thus, it can be seen that the average expenditure per capita in the whole sample after reducing females and children to adult equivalents is Rs. 79.7. In the A group it is Rs. 97.9, in B Rs. 80.4 and in C Rs. 63.9.

The expenditure on foodstuff, milk and chilly and other materials required for food purposes can be taken as the total expenditure on food and from table No. 6 it can be seen that the total expenditure on food and accessories in the whole sample is 56.9 per cent. In the A group it is

63.6 per cent, in B 67.5 per cent and in C 71.2 per cent.

From table No. 6 it can be seen that the food expenses in the family budgets constitute a higher percentage in the C group than in the other two groups and in the A group the percentage is less than in the B group. According to Dr. Engel's law " In a homogeneous group of families differing only in respect of income, the excess over (or defect from) the average expenditures on any budget item bears a constant proportion to the excess over (or defect from) the average income. In the case of some goods which may be described as necessaries this rule results in a diminishing proportion of expenditure as income rises. In the case of other goods which may be described as luxuries the proportion of expenditure rises as income rises." [1]

So, it can be seen that the percentages on food are in an ascending proportion in the three Economic groups and thus Dr. Engel's law on family expenditure holds good. It also holds good in case of the non-food items, as the percentages of the total expenditure on this item are respectively 36.1, 32.5, 28.8 in the three Economic groups. If we look into the several items of non-food expenditure it can be seen that this law holds good except in the case of religious ceremonies. The percentages of the expenses for religious purposes are respectively 1.8, 2.1 and 2.3, in the three Economic groups and these are in ascending proportion. This item cannot be taken as "necessaries", but the agricultural families are generally superstitious and religious-minded and they think it necessary to spend on this item even though their means may not permit it.

It will be interesting to study the average actual expenses on the different groups of items per family, according to the Economic groups. The following table gives the details.

[1] **Allen and Bowley: *Family Expenditure*, p. 7.**

TABLE No. 8

(showing average expenditure on different items per family)

Different Items of expenditure	A	B	C	All
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p,
Food	561-13-3	303- 2- 4	161-12- 7	296-9-10
Clothing	99- 4-2	46- 1- 8	19-11- 6	45-6- 3
Medicine	31- 9-8	11-11- 4	5-15- 1	12-6- 2
Religious Ceremonies ...	16- 1-9	9- 9- 8	5- 4- 6	9-4- 1
Tea, Sugar & Tobacco ...	106- 1-2	44-12- 6	19-10- 6	45-3- 6
Miscellaneous	69-14-7	34- 8-11	14-12-10	33-8- 1
Total	884-12-7	449-14-5	227- 3-0	442-5-11

It can be noticed from the above table that the expenses on the different items of the family budget are different in the three Economic groups. In the A group they are highest and in the B group they are higher than in the C group. In the case of tea, sugar and tobacco, the expenditure in the A group is proportionately very high. But this can be explained ; as in the A group, the holdings are higher than in the two other groups and naturally the families of this group have to engage a greater number of labourers and obviously they have to spend more on tobacco, tea and sugar. It must be remembered that to the agriculturist, working in the field, tobacco is not so much an article of luxury as of necessity. Taking this fact into consideration it can be seen that the A group does not consume more tobacco, tea and sugar than the other groups. The other groups on the other hand may be spending on tobacco, etc. as much as is spent by the A group. In the case of the miscellaneous item, which includes amusements, travelling (generally by the motor buses), footwear, servants' wages and many other items of luxury, the ability to spend more must be regarded as indicating a greater margin above the subsistence level. In the A group, the average expenses per family under this heading are Rs. 69-14-7 ; in the B group Rs. 34-8-11 and in the C group Rs. 14-12-10. This shows that the A group alone can be

regarded as having anything like a considerable margin left for spending on luxuries.

In the case of the food item, the expenditure per family, in the three Economic groups, is greatly varying. For instance, in the A group the average expenditure on food, as can be seen from table No. 8 is Rs. 561-13-3 per family. In the B group it is Rs. 303-2-4 and in the C group Rs. 161-12-7. But this need not lead one to make an easy statement that either more or better food is being consumed by the A group for the simple reason that the size of the family also varies with the Economic groups as can be seen from table No. 5. Therefore, to arrive at an accurate data, it is necessary to consider the per capita expenditure after reducing the females and children to adult equivalents in these Economic groups.

Table No. 9 on page 176 gives the expenditure per capita on food and clothing in the three Economic groups.

From the table it can be seen that the proportion of the difference in the expenditure per capita on food is not so great as it appears, when the expenditure per family is taken into consideration. The difference in the expenditure on food per capita among the three Economic groups may lead to the conclusion that either the A group spends more on food and the expenditure of the other two groups is not sufficient to provide adequate supply of food or that the A group has a better or more varied diet. But as regards the latter, it may be pointed out that the average agriculturist of all the villages studied, whether rich or poor has practically the same sort of diet, the standard of life being more or less the same. So the only conclusion that can be drawn is that, in the A group and to some extent in the B group, the difference in the expenditure on food per capita may be due to the expenditure for the adequate supply of food and for the necessary things such as chilly, oil and such other things, that are required for food purposes. For instance, if we refer to table No. 6, it can be seen that the expenditures on chilly and other materials are respectively 14.5, 11.5 and 9.1 per cent in the three Economic groups.

TABLE No. 9

(showing expenditure per capita after reducing children and females to adult equivalents)

	A		B		C		All	
	Amount	Per-centage	Amount	Per-centage	Amount	Per-centage	Amount	Per-centage
	Rs.		Rs.		Rs.		Rs.	
Food	62- 0- 9	63.3	54- 0- 8	67.5	45- 7- 0	71.2	53- 3- 1	66.5
Clothing	10-15- 0	11.2	8- 6- 9	10.4	5- 8- 7	8.6	8- 2-10	10.2
Medicine	3- 7- 5	3.6	2- 6- 9	3.1	1-10- 9	2.5	2- 8- 2	3.2
Religious ceremonies	1-12- 7	1.8	1-10- 1	2.0	1- 7- 9	2.4	1-10- 8	2.3
Tea, Sugar and Tobacco	11-15- 0	12.2	7-13- 5	9.6	5- 8- 4	8.6	8- 2- 4	10.2
Miscellaneous	7-11- 8	7.9	6- 0- 9	7.4	4- 4- 0	6.7	6- 0- 1	7.6
Total ...	97-14- 5	100.0	80- 6- 5	100.0	63-14- 5	100.0	79-11- 2	100.0

The expenditure per capita on clothing, in the three Economic groups is respectively Rs. 10-15, Rs. 8-6-9 and Rs. 5-8-7, as can be seen from table No. 9. The minimum expenditure on clothes per adult, according to the average standard is as follows :—

Male (adult)		Female (adult)	
Koparis (two)	1- 8	*Lugadis* (two)	3- 8
Loin cloth (4 pieces)	0-12	Bodices (four)	1- 0
Blanket	1- 8	Blanket	1- 8
Caps (two)	0-10	Miscellaneous	0- 8
Miscellaneous	0-10		
	5- 0		6- 8

Thus, it can be seen that in the C group the expenditure on clothes is just the minimum and the clothes are bought only to keep off cold and rain. In the B group it is a little higher than the minimum and in the A group it is a little above than what is essentially required and this is the only group which appears to spend on clothing a little higher than what is absolutely essential for covering the body.

Taking into consideration Dr. Engel's law in cases of expenditure per capita after reducing children and women to adult equivalents, it can be seen that the law holds good in all the items of expenditure per capita except in the case of religious expenditure, as the expenditure per capita on this item in the three Economic groups is respectively 1.8, 2.0 and 2.4 per cent.

In conclusion, it can be said that the C group lives below the minimum level of subsistence, the B group is just on the level of the minimum subsistence and only the A group can be said to have the use of comforts a little above the minimum level.

CHAPTER VIII

SOME VILLAGE PROBLEMS

There are in all 205 villages in the Taluka out of which 45 villages are studied in this survey. Out of the families living in these villages 760 families are surveyed and the following table shows the distribution of these families in all these 45 villages.

TABLE No. 1

(showing distribution of families according to the number of villages)

No. of families	No. of villages	Total number of families	No. of families	No. of villages	Total number of families
2	1	2	16	2	32
4	1	4	18	1	18
5	1	5	19	2	38
6	1	6	20	5	100
7	1	7	21	1	21
9	1	9	23	1	23
10	2	20	24	3	72
11	3	33	25	2	50
12	2	24	26	1	26
13	1	13	27	2	54
14	5	70	28	1	28
15	3	45	30	2	60
	22	238		23	552

No. of villages 21+23 = 45 ; No. of families 238+522 = 760.

According to the second revision Settlement of 1927, the Taluka has been divided into four divisions. The first division includes the Bhiwandi town at the centre and it has good transport facilities both by road and water. The four important metal roads pass through this division. There is also the Bhiwandi Creek from the Bhiwandi town upto the village Paye where the water transport facilities are available. A large number of villages in this division depend upon the

Bhiwandi town as the marketing place where there is a good demand for their vegetable products and animal-husbandry products such as milk, eggs etc. In the second division the two important metal roads, viz. the Bhiwandi-Wada Road, i.e. the Bombay-Ahmedabad Road and the Bhiwandi-Shahapur Road, i.e. the Bombay-Agra Road pass through. Along the Bhiwandi-Wada Road there are three important villages, viz. Angaon, Dugad and Mahapoli. The villages near the Ambadi village are at a short distance from Vajreshwari, the holy place which is a good marketing place for the vegetable and animal husbandry products. As a matter of fact, Vajreshwari belongs to the fourth division but the advantage of this market-place is taken mostly by the villages of this group, situated along the Ambadi-Bassein Road. Along the Bombay-Agra Road, Padgha is an important village where there are various artisans living and it is a very good marketing place for all the villages which are at a distance of 4 to 5 miles. Besides, there is a railway station Vashind on the G.I.P. line in the Shahapur Taluka, which is at a distance of four miles from the extreme end of the Taluka, along the Bombay-Agra Road. The third and the fourth divisions are hilly tracts where there are no good transport facilities nor are there any convenient market-places for agricultural products.

The maximum Government Cess per acre for the Kharip land is Rs. 8-8 in the first division, Rs. 7-12 in the second, and Rs. 5-12 in the third and fourth.

According to these divisions, out of the 45 villages under survey, 7 villages are from the first division, 32 from the second, 4 from the third and 2 from the fourth. With regard to the families, there are 94 families in the first division, 583 in the second, 57 in the third and 26 in the fourth.

Now let us study the various village problems in all these villages.

Village Sites :

Out of these 45 villages there are only 5 villages, situated near the metal roads, one in the first division and four in the

second. But there are six villages one from the fourth group and five from the second group which are at a distance of not more than four furlongs from the metal roads. But in none of these six villages is the entrance from the main road wide nor are the village roads kept clean. The District Local Board (formerly the Taluka Local Board) sometimes repairs these by-roads, but firstly, it is not possible for the Board to look into the requirements of each and every village and secondly such road-repairings are given by contracts which are generally neglected by the contractors. The interior parts of all these villages are dirty and narrow and the villagers do not take the slightest care to see that the villages in which they have to live life-long, are kept fit for human habitation. During the summer, the roads are full of dust and dirt and in the rainy season they are full of mud, so much so, that none can walk except through ankle-deep mud. The other villages are in the interior, nearly 1 to 5 miles from the metal roads and there are no roads connecting these with the main roads except narrow lanes. Only the Dugad village is connected by a *murum* road with the Bhiwandi-Wada Road. These lanes are always full of mud during the rainy season. During the fair seasons there are fair-weather cart tracks passing through the fields. In the absence of village roads in good conditions, the school boys from the villages where there are no schools are sometimes not sent to the schools of the adjoining villages, during the rainy season, because of the bad muddy roads and also because of the water-torrents crossing such roads. Thus, practically during the whole rainy season these villages are deprived of any means of communications and the villagers have to suffer a great deal.

Houses of the Villagers:

The houses of all these villagers, with rare exceptions, are very unclean partly because of the system prevalent throughout the Taluka of keeping cattle within the houses. During the fair seasons they are not generally tied down during the day-time but let loose. But during the rainy season they are to be tied down throughout the day and the

night and as the villagers have no system of separate cattle sheds, the cattle are kept in their houses. The houses may be worth a few rupees or they may have cost Rs. 2,000-3,000, this system is common to all. The whole portion of the house is meant for the cattle and the two small rooms behind this hall are meant for the members of the family, one serves as the kitchen and the other is the bed-chamber. All these houses have thatch-walls ; for they do not use brick-walls as the urine of the cattle has to pass through. During the fair season all the cattle of the village are let loose with the result that these cattle do a great deal of damage to the vegetables and other subsidiary crops. Naturally, such subsidiary crops are not grown on a large scale, although it is possible for some of the villagers, especially in the villages where there are rivers and rivulets, to produce some kind of vegetables such as Brinjals, Tomatoes, Chillies etc. mainly for their own consumption and partly for marketing purposes. But the initiative of all these people to get themselves busy in off-seasons is killed because of the universal system of letting the cattle loose. And even if anybody tries to carry out such subsidiary cultivation after fencing his fields, the other villagers who pass their time idly, get malicious of him and purposely put their cattle into such fields. The result is obvious as none of these villagers, in spite of his leisure time during the off-seasons, can do any useful work for his own benefit. It is possible to have these agricultural products as it can be well seen that the Varlis, the Kolis and the Katkaris from the villages Bhadane, Vedhe, Ghotgeon, etc. produce vegetables near the rivers, but they have to keep a vigilant watch on their farms throughout the day and night.

Public places :

Besides the houses of the villagers there are no public places in the villages like the *chawadis,* where the villagers can assemble and where the visitors can stop for a day or so. The system of keeping a *chawadi* is not at all prevalent in the Konkan tract as in the Deccan. At Ambadi and Mahapoli there are mosques which are convenient for the travellers to

make a halt in but they are meant for the Muslims only. In most of the villages the Hindus have Maruti temples, but except in the villages like Bhinar, Kurund, Dabhad, Kharbao, Paye etc. in all other villages the Maruti temples are mere huts, in dilapidated condition and quite unfit for human habitation. At Kharbao, besides the Maruti temple, there is a Dattatraya temple which is built in the pacca method and it is always kept clean. About ten families of this village of Agri community are following the *Padmanabha-Panth.* This sect is founded by Yeshwant Rai, popularly known as the Deo Mamlatdar. They are the devotees of the God Dattatraya. Their mode of living is altogether different from their fellow-brothers. They are purely vegetarians and their dress, both of men and women, is like that of the high-caste Hindus. These people have built this temple for their use and always keep it clean.

Besides the temples there are village-school buildings. Out of the 45 villages under survey, 13 villages have schools. Of these, four schools assemble in buildings owned by the School Board, two in the temples and the remaining seven in huts constructed by the villagers. But in the whole Taluka, leaving aside the Bhiwandi Municipal area there are 55 primary schools, out of which 10 schools have Local Board buildings, two schools have buildings partly their own and partly rented ; 13 have rented buildings and the remaining 30 are housed either in temples or in the huts constructed by the villagers at their own cost.

Shops :

Leaving aside the important villages such as Padgha, Kharbao, Paye and Bhinar, where there are good shops, in other villages the shops are kept by the Kacchis, Gujars, Vanis etc. where the most necessary things such as tea, sugar, tobacco etc. are kept for sale. But generally in these shops the transactions are not carried out on cash but mostly on credit basis, with interest, at the rate of 25 per cent. During the harvest season these requirements are sold on basis of the exchange of

paddy. Bhiwandi and Padgha are the two main market-places where all the requirements of the agriculturists can be had. But it is not possible for these villagers to go to these marketing places every now and then and besides, they have no hard cash to pay except during the harvest season. So naturally, these people have to depend upon the local shop-keepers who are mainly Kacchis and Gujarathis. In the absence of good shops run on the co-operative basis these people have to buy provisions at $1\frac{1}{2}$ times the usual price of the commodity and get inferior quality in the bargain.

Forest Villages :

The villages near the forests are taken as the forest villages and these villages get the advantage of forest products for their requirements. Most of the villages of the third and the fourth divisions and villages like Vedhe, Mohili, Shedgeon, Pahare, Lap Budruk etc. from the second division are considered as the jungle villages. The villagers cannot make use of the trees of the reserve-forests. At most, they can make use of the dry logs of these trees of a diameter of not more than six inches for their agricultural implements. But these villagers have to go to the forest for the forest cultivation work, practically without any remuneration at any moment whether convenient to them or not. Besides, they have to treat the Forest Roundguards and other Forest Officers very nicely whenever they come to their villages, otherwise any concocted or real forest case can be brought against them. In other villages the agriculturists have either to buy all their requirements or steal them from the neighbouring forests.

Occasional Visitors to the villages :

Besides the small or big officers from various departments, such as Revenue, Police, Excise, Forest etc. who visit these villages while on their official tours, there are few persons who go to these villages on any occasion. During the fair seasons hawkers come to these villages to sell oil, biscuits, betel leaves and various other miscellaneous things.

The Marwaris also go to some villages to sell ornaments during the marriage days. They sell these ornaments or give them on credit for which the villagers have to sign a written document. Generally, they charge interest at the rate of 25 per cent and take a bond for double the amount, although orally they ask them to pay back the original sum with due interest. After the Dassara Day, a large number of religious mendicants from the Ghat side such as *Nandiwallas, Jogis* of the Goddess Bhawani, *Bhats, Gondhalis, Kaikadis* etc. visit all these villages for begging. They move through these villages during the harvest season, collect money and after the Diwali holidays, return to their own villages. The Sadhus and Fakirs also move frequently in all the seasons in the villages, but more especially on the occasion of fairs. They are greatly respected by the villagers, who look to all their requirements. Of all the fairs that are held in the Taluka, the Vajreshwari Fair held on the full-moon day of *Chaitra*, the Kavad Fair held in the honour of Sakharam Maharaj on the full-moon day of *Margashirsh*, and the Gairipada *Urus* on the full-moon day of *Chaitra*, are the important fairs as thousands of visitors from all the villages round about and also from the Ghats attend these fairs.

Provision of Water:

We have seen in table No. 1 of the first chapter, the sources of water in all the villages in the Taluka and the total number of villages having scarcity of water, during the summer season. In this connection minute detailed information is given about the position of the water facilities in the forty-five villages under survey.

In the first division, out of 78 villages, in two villages scarcity of water is felt in the hot season ; in the second out of 32 villages, there is scarcity of water while in the third and the fourth there is not much scarcity in all the six villages. The following table shows the position of water supply in all these 45 villages.

TABLE No. 2

(showing the sources of water-supply in the villages under survey)

Villages	Population	Sources of Water Supplies							Sources of water supplies for the untouchables		
		Wells			Tanks			River at what distance	Wells		
		in good condition	in bad condition	Total	in good condition	in bad condition	Total		in good condition	in bad condition	Total
Villages having scarcity of water											
DIVISION I											
1. Khandpe ...	188	2	4	6	...	...	...	1 mile	...	1	1
2. Chinchavli ...	311	3	2	5	1	...	1	...	...	...	...
DIVISION II											
3. Dhamane ...	145	...	1	1	...	...	...	...	...	...	...
4. Asnoli ...	161	3	3	6	...	...	...	...	...	1	1
5. Chane ...	191	...	1	1	...	...	...	¾ mile	...	...	...
6. Jambivli ...	208	2	1	3	...	...	...	...	...	1	1
7. Avalote ..	216	2	1	3	...	...	...	...	...	...	...
8. Vareth ...	227	1	...	1	...	...	...	½ mile	...	...	...
9. Lakhivali ...	355	2	3	5	...	...	...	...	1	...	1
10. Chave ...	399	2	...	2	...	1	1	...	...	...	...
11. Zidke ...	410	...	1	1	...	...	...	...	...	...	...
12. Khaling ...	445	1	1	2	...	1	1	...	...	...	...
13. Bhokri ...	471	1	...	1	...	...	...	...	1	...	1
14. Vedhe ...	481	...	2	2	...	...	...	...	...	...	...
15. Dabhod ...	488	5	1	6	...	1	1	...	...	1	1
16. Kurund ...	518	2	...	2	...	...	...	...	...	...	...
17. Ambadi ...	668	2	...	2	...	...	...	½ mile	...	1	1
18. Padgha ...	1,731	8	...	8	...	...	...	...	2	...	2
Total ...		36	21	57	1	3	4		4	5	9
Villages having no scarcity of water											
DIVISION I											
19. Pogeon ...	149	2	...	2	...	...	...	...	...	...	...
20. Kukse ...	320	2	6	8	...	...	...	...	...	1	1
21. Bhinar ...	380	2	...	2	...	...	...	...	1	...	1
22. Paye ...	835	3	...	3	...	...	...	nearby	...	...	...
23. Kharbao ...	1,449	6	...	6	...	...	...	...	...	1	1

TABLE No. 2—(*Contd.*)

Villages	Population	Sources of Water Supplies							Sources of water supplies for the untouchables		
		Wells			Tanks			River at what distance	Wells		
		in good condition	in bad condition	Total	in good condition	in bad condition	Total		in good condition	in bad condition	Total
DIVISION II											
24. Khativali ...	84	1	...	1	...	...	...	...	...	...	...
25. Manivali ...	132	1	...	1	...	...	...	...	...	...	...
26. Dalonde ...	187	2	...	2	...	1	1	...	...	1	1
27. Talavali ...	199	1	...	1	...	...	...	...	...	...	...
28. Shedgeon ...	244	2	...	2	...	...	...	...	...	...	...
29. Mohıli ...	246	2	...	2	...	1	1	...	...	...	...
30. Lap Bk ...	254	3	2	5	1	1	2	...	...	...	...
31. Asnoli (Manivli) ...	259	1	...	1	...	...	...	nearby	...	...	...
32. Dohala ...	277	1	...	1	...	...	...	...	...	1	1
33. Lap (Kd) ...	292	2	...	2	...	...	...	...	...	1	1
34. Bhare ...	343	2	...	2	...	...	...	...	...	...	...
35. Pahare ...	375	...	1	1	...	...	...	...	...	...	...
36. Koshimbe ...	499	4	...	4	...	...	...	...	1	...	1
37. Mahapoli ...	565	4	...	4	...	...	...	...	...	1	1
38. Bhadane ...	602	6	2	8	1	...	1	...	...	1	1
39. Dugad ...	687	1	...	1	...	1	1	...	1	...	1
DIVISION III											
40. Khanivali ...	206	1	...	1	...	...	...	...	...	...	...
41. Karnjoti ...	295	1	...	1	...	...	...	...	...	...	...
42. Vadavali ...	368	2	...	2	...	...	...	...	...	...	...
43. Kunde ...	572	1	1	2	...	...	...	...	1	...	1
DIVISION IV											
44. Ganeshpuri ...	290	8	...	8	1	...	1	nearby	1	...	1
45. Ghotgeon ...	481	4	...	4	...	...	...	...	...	...	...
Total ...		65	12	77	3	4	7	...	5	7	12
Grand Total ...		101	33	134	4	7	11	...	9	12	21

From the above table it can be seen that out of the 18 villages where there is scarcity of water, except in two villages, viz. Padgha and Dabhad, the scarcity of water is felt only because there is an insufficient number of wells and tanks in good order. Thus, leaving these two villages, in the remaining 16 there are only 43 wells and 4 tanks of which 20 wells and 3 tanks are in a dilapidated condition. If these wells and tanks are repaired, it may be possible to make available a sufficient provision of water. Out of these 18 villages, in four villages there is only one well in each village and two of these village wells are in a dilapidated condition. It is a curious thing that villages like Zidke and Bhokari having a population of more than 400 persons have only one well for the use of the villagers and the cattle. At Vedhe having a population of 481 souls, there are two wells, but both of them are *kaccha* wells. As far as Padgha is concerned the population is 1,731 and there is a great scarcity of water. It seems the wells go dry during the summer season but it is possible that tap-water can be provided for this village from the Bhadane tank. The area of this tank is 900 sq. ft. and it was built during the Peshwa period. As a matter of fact all the neighbouring villages including Padgha depend upon this tank during the summer season. There are again six villages, out of these 16 villages which are situated in the vicinity of the rivers and there is a possibility of having some additional provision of water, if efforts are made in that direction.

In the remaining 27 villages scarcity of water is not intensely felt, though it cannot be said that there exists an ample provision of water. For instance, Dugad which has a population of 687 has got only one *pacca* well and one *kaccha* tank. It may be possible to have good provision of water if the tank is repaired. Besides, in all these villages water is just sufficient for human requirements during the hot season, but for cattle purposes the scarcity is much felt. For instance, at Bhinar, there is no scarcity of water for the residents of the village, but much scarcity of water is felt for the cattle purposes, but there is a possibility of constructing a tank in

the village provided the fields of one villager are taken for this purpose and the villager may part with these fields provided he gets compensation for his lands.

But the position of the untouchables in all these villages, whether there is ample provision of water or not, is the same and for them there is always a scarcity of water, except in one village where it was found that the well for the untouchables is in good condition having an ample provision of water while in the same village, the scarcity of water is much felt by the caste Hindus. Out of the 45 villages, in 12 there are no untouchables. Out of the remaining 33 villages, in 12 there are no wells or tanks for their use and out of the remaining 21 villages, in 7 there are 8 *pacca* wells, while in the remaining 14, there are *kaccha* wells, i.e. *dowaras* which are in an insanitary condition.

Health and Hygiene :

A close observation of all these villages shows that the inhabitants of the villages are often emaciated, disease-stricken, worn-out and are altogether very depressing specimens of humanity. This is probably due to the fact that during the rainy season and during the winter season, the Taluka as a whole and more especially the hilly tract is malarious and the peasants have to suffer very heavily during this period which is their busy part of the year. There is no adequate medical help except at Ambadi and even there only a travelling dispensary is available and that too at intervals. The free distribution of quinine is sometimes arranged but it is totally inadequate. During the summer season owing to the insufficiency of pure drinking water in a large number of villages, the agriculturists have to travel half a mile or at times more than a mile to fetch a pail of drinking water. And even when so much trouble has been taken there is no guarantee that the water will be pure. The scarcity of water impairs both the health and the efficiency of the villagers. Health suffers because the impure drinking water carries germs of guinea-worm which confine the patient to his home often for several months. Nearly half of the villages in the Taluka

and especially the villages from Padgha side have to suffer intensely owing to these germs of guinea-worm. Efficiency is also impaired for four reasons. First, a great deal of the villagers' time, which properly ought to be spent on the fields is wasted in such trivial operations as getting drinking water ; second, the work is itself is so fatiguing that just at the time when the villagers must be in great bodily vigour to begin his operations for the season, he is completely tired and worn-out ; third, an inadequate supply of water during the hot months cannot fail to affect health and vitality and finally the villagers who are stricken with guinea-worm, are in a helpless condition and are unable to carry out their work.

There is also a total absence of a hygienic manner of living, in the villages. The system of keeping cattle within the houses is the root cause of all kinds of diseases especially malaria, as the ground adjoining the houses is often saturated with the urine of the cattle, and breeds mosquitoes. The houses are mostly rickety, having none or very little ventilation and no drainage, with the result that the houses become the breeding places of mosquitoes, bugs and other vermin.

From table No. 5 of the second chapter, it can be seen that the death rate in the villages under survey is on an average 27.7 during the three years 1933-35. The death rate for India during the period 1931-35 was 24[1] and during the period 1921-31, it was 26.8 in the Bombay Presidency.[2] Thus, the death rate in our sample is very high.

Vegetables and Crops :

The land is the real and permanent capital in the agricultural villages but it is in the villages under survey not in any improved condition which it ought to be in. There are no fences except temporary ones, put up to protect special crops. Roads in the interior are mere tracks. There are certainly a number of embankments and a few wells. But these form a small proportion to the unimproved value of the land ; and hence a detailed study of what the unimproved

Gyan Chand—*India's Teeming Millions*, p. 99.
Bombay Presidency Census Report, 1931, p. 91.

land produces without or with cultivation and what it is capable of producing is a matter of even greater importance in these villages.

Trees :

The north of Bhiwandi, lying in the Vaitarna watershed is comparatively flat and well-tilled and except for fruit trees and teak (*Tecona grandis*) is bare of trees. But the ranges of hills that run north and south are fairly covered with valuable trees, such as Sag (*Tecona grandis*), Ain (*Terminalia tomentosa*), Khair (*Acacia catechu*), Kinhai (*Albizzia procera*) etc. which are considered as trees in the Reserved Forests and the villagers cannot make much use of them. In the villages there are not many trees grown and at a glance they present a bare and treeless aspect. The common tree which is seen in every village is mango (*Mangifera indica*), which is valuable both for timber and fruit. There are three well-known varieties, *Apus*, *Pairi* and *Raival*. The first two varieties are cultivated especially on the Kharbao side and the third type, which is the common sort is found practically in all the villages. Apta (*Bauhinia racomosa*), a small fibrous tree, is also commonly found in the villages and its leaves are used for making *bidis*. Babhul (*Acacia arabica*) is a small tree and though of not much value as timber, is very useful to the villagers for fire wood. Bor (*Zigyphus jujuba*), is a common tree, in all the villages and its fruit is eaten by men and birds. The fruit is generally sour but it may be possible to have large and sweet fruit by grafting. Its branches are useful for hedges, as they are thorny. Tamarind (*Tamarindus indica*), a large and handsome tree, has hard wood and is used for all purposes. Its fruit is indispensable for the villagers. Jambhul (*Eugania jambolana*) is an useful tree, as the wood is very durable under water and when of large size makes good planks. Its fruit is eaten and its bark is largely used for tanning. Kalak (*Bambusa arundinacea*) is a well-known and very useful bamboo and is seen in all the parts of the Taluka. Karanj (*Pongamia glabra*) is a handsome tree, seen everywhere in the Taluka. It is of immense use to the

agriculturists, as its leaves are used as manure and from the seeds oil is extracted. Twenty years back its oil was used by all the villagers for their home consumption, but recently owing to the import of mill-oil in the villages, it is not much extracted. Kokamb (*Garcinia purpurca*), a common tree in all the villages, yields a very delicious fruit. By boiling the seeds, oil is obtained, which if mixed with clarified butter, is useful as an ointment for fire-burns. Moha (*Bassia latifolia*) is a well-known tree, whose flowers yield liquor and whose fruit yields oil. Illicit liquor is extracted on a large scale from the Moha flowers, in the Taluka. Nandruk (*Ficus retusa*) is one of the best of the roadside trees as it has got large branches which give good shade. Nimb (*Malia Indica*) is found everywhere in the Taluka and is a well-known tree for its medical properties. Palas (*Butca frondosa*) is common in all the villages of the Taluka. Its flowers yield dye and the roots fibre. A watery fluid gathered from its roots is considered a cure for fever and its seeds for worms. Savar (*Bombax malabaricum*) the well-known silk-cotton tree, has very light wood and it grows to a large size. Shegat (*Catharticarpus fistula*) is found in every part of the Taluka and is very useful to the villagers for vegetable. Tembhurni (*Dispyros melanoxylon*) is also a very common tree and its leaves like the Apta leaves are useful for *bidis*.

Besides these trees, there are liquor-yielding palm-trees such as Tad (*Borassus flabelliformis*), Berli Mad (*Caryota urens*) and Shindi (*Phoenix sylvestris*), which are found sporadically in all the villages.

Crops :

The important crop in the Taluka is rice and more than 40,000 acres, i.e. roughly speaking 75 per cent of the gross cropped area is under rice cultivation. Other cereals and pulses are grown sporadically. 63 acres, i.e. .11 per cent are under *Tur* cultivation ; 383 i.e., .72 per cent are under *Udid* ; 145 i.e. .27 per cent are under *Chavali* ; 184 i.e. .34 per cent are under *Vari* ; 1901 i.e. 3.58 per cent are under *Ragi* ; and 110 i.e. .20 per cent are under gram. Two varieties of oil seeds

are grown and they are *nigar* seed and *til*. Under the *nigar* seed cultivation there are 142 acres i.e. .26 per cent and under the *til* there are 204, i.e. .38 per cent. Under condiments and spices there are 213 acres, i.e. nearly .40 per cent ; under fibre there are 119, i.e. .22 per cent. Under fruits and vegetables including root-crops, there are 196 acres, i.e. .36 per cent and under fodder there are 9,629, i.e. 18.15 per cent of the total area under cultivation.

Besides these productions there are various mix-farming productions such as dairy, poultry, cattle and goats etc., which we will discuss in details in the second part of this chapter.

Primary Education :

We have seen in Chapter I that there are in all 71 schools in the Taluka out of which in the Bhiwandi Municipal area there are 16 schools and the remaining 55 schools are in the villages. On March 31st, 1940, there were 4,778 pupils in all these schools. The total population of the Taluka is 82,942 according to the census of 1931. "It is generally accepted that about 14 per cent of the population which represents children between 6-11 years of age ought to be in the primary schools."[1] On this basis the number of pupils that can be available for primary schooling ought to be 11,612 in the whole Taluka. Thus, it is obvious that out of 100 children of primary school age, about 41 attend the primary schools ; or roughly speaking for every two students who attend the primary schools, there are three who do not. But in the rural area for every two children who attend the schools, there are 5 who do not.[2]

The main object of providing primary education in the villages, as it stands today, is to spread literacy among the village communities. According to the Indian Census definition of literacy, 'literacy means the ability to write a letter to a friend and to read the answer to it'.[3] It is very difficult

[1] Parulekar, R. V.—*Mass Education in India*, p. 1.

[2] The total rural population of the Taluka is 67,323 and the total number of students in the rural area is 2,889. The total number of students that ought to be in the schools is 9,425 and hence this proportion.

[3] *Census of India*, 1921, Vol. I, Part I, p. 175.

to ascertain as to when this literacy is attained, according to the curriculum of the Primary Education. Mr. R. V. Parulekar in his book *Literacy in India* has worked out this problem and according to him "The census figures of 1921 very clearly show that in Bombay not only were all pupils reading in the 4th year class (i.e. Standard III) recorded as literates but a substantial portion for the third year (i.e. Standard II) class was also counted as such." [1]

So, it can be safely said that the pupil completing the third standard can be counted as literate. From Appendix No. 1 it can be seen that a considerable number of pupils do not reach the standard which gives them literacy and therefore there is a great amount of wastage. The following table prepared from Appendix No. 1 gives an idea about this wastage.

TABLE No. 3

(showing pupils upto Standard III)

Standards	No. of students on roll	Percentage
Infant	2,107	51.0
I	820	20.0
II	724	17.0
III	513	12.0
Total ...	4,164	100.0

Thus, 12 pupils are reading in the third standard, out of the 100 in the first four classes together. Assuming for the sake of argument that a pupil becomes literate by reading in III Standard, in an unwasteful system of education in which there is no retardation, there ought to be 25 pupils in each of these four classes. This means that if there were 25 pupils in the fourth class, the system could have been perfect. But

[1] R. V. Parulekar—*Literacy in India*, p. 31.

instead of 25 pupils, there are only 12 pupils in the third standard. So, there is a wastage of 52 per cent in the present system. If we take into consideration, the natural elimination of numbers from class to class owing to deaths, sickness, mental incapacity etc., it can be roughly said that 90 per cent of the pupils in each class ought to go upto the next class, which means that the present system gives a wastage of 43 per cent.

But the wastage in case of girls is much higher than that in the case of boys. The following table shows the total number of boys and girls attending the different standards.

TABLE No. 4

(showing boys and girls attending different standards)

Standards	Boys	Percentage	Girls	Percentage	Total	Percentage
Infant	1,499	41.9	608	50.4	2,107	44.1
I	611	17.3	209	17.4	820	17.2
II	546	15.3	178	14.7	724	15.2
III	390	10.9	123	10.2	513	10.7
IV	298	8.4	48	3:9	346	7.3
V	114	3.2	27	2 2	141	2.8
VI	71	1.8	5	.5	76	1.6
VII	42	1.2	9	.7	51	1.1
Total ...	3,571	100.0	1,207	100.0	4,778	100.0

It can be seen from the above table that in the Infant Class 41.9 per cent of the total number of boys attend school; in the case of the girls, this percentage is 50.4 while in the case of the total students, the percentage is 44.1.

The higher percentage of the Infant Class shows that there is higher percentage of stagnation, in that class. "The reasons for stagnation in the Infant classes are too patent to be mentioned. Irregular admission and irregular attendance throughout the year, coupled with indifferent teaching and supervision and existence of a large number of one-teacher schools are the most important ones." [1]

[1] *Report on Public Instruction in Bombay Province*, 1938-39, p. 53.

From the above table, it can be seen that there is more wastage in case of girls than of boys. As it is observed above, that in order to achieve literacy the III Standard course is necessary, let us see how many boys and how many girls are literate per 100 students, in the first four years of schooling. The following table gives the details.

TABLE No. 5

(showing boys and girls upto Standard III)

Students	Boys	Percentage	Girls	Percentage
Infant	1,499	49	608	54
I	611	20	209	19
II	546	18	178	16
III	390	13	123	11
Total ...	3,046	100.0	1,118	100.0

It is obvious from the above table that the literacy in the case of the boys is higher than that in the case of the girls. The literacy that is gained in the case of the boys is 52 per cent, while the literacy gained in the case of the girls is only 44 per cent.

The problem of wastage is most intimately connected with what is called 'stagnation', which means "the reduction in lower classes of a child for a period of more than a year."[1] Of all the causes that lead to wastage, the most important is the inability of a pupil to secure promotion to a higher class, after attending the class for one year. Table No. 6 on page 196 shows the result of the examinations held in 1940.

The pupils from the aided schools are excluded from the table. Out of the total 4,329 pupils 4,078 appeared for the annual examination in the year 1940 and 2,431 pupils were promoted, giving an average promotion of 58 per cent

[1] *Hartog Committee Report*, p. 47.

TABLE No. 6

(showing the proportion of the pupils in different standards)

Students	No. of students on the roll	No. of students appeared for the examination	No. of students promoted	Percentage of promotion to the students appeared	Percentage of promotion to the students on the roll
Infant	1,807	1,751	685	39	38
I ...	754	726	544	75	72
II ...	677	690	566	82	82
III ...	491	398	291	73	59
IV ...	332	320	217	68	67
V ...	141	97	67	69	47
VI ...	76	61	38	62	50
VII ...	51	35	23	66	45
Total ..	4,329	4,078	2,431	59	58

to the total number of pupils on the roll. The average promotion in the Infant class is very low being only 38 per cent.

The completion of the Third Standard course is necessary for making a pupil literate. Table No. 7 on page 197 which is deduced from the above table gives the percentage of the students who are promoted to the higher standards upto Standard III, which will show the average percentage of stagnation in these standards.

It is clear from the table that there is a great amount of stagnation as nearly half the students are detained and therefore, there is an enormous wastage of school-funds and of human energy. It also shows that there is serious maladjustment within the Primary Education system. It must be remembered that "The schools are established in order that children may be taught and not that they may be failed." [1]

[1] *Survey of Educational System of the Philippine Islands*, 1925, p. 214.

TABLE No. 7

(showing percentage of promotion upto Standard III)

Standards	Total number of pupils	Total number of pupils promoted	Percentage
Infant	1,807	685	38
I	754	544	72
II	697	566	82
III	491	291	59
Total ...	3,749	2,086	53

It is extremely doubtful that there can be any adequate defence for any school system that fails more than 10 per cent of its pupils. There is no justification for causing pupils to do over again the work of a grade. "It is the first principle of mass education that every pupil who enters the school should be enabled to go from class to class in a scheduled time. Every part of the administrative machinery must be made to serve this most fundamental principle." [1]

One of the main causes of these failures is the inability of the pupils to finish the prescribed curricula within a defined time. But the prescribed curricula should not be treated as sacrosanct. The whole system of schooling in a locality must be so adjusted that it serves the needs of each locality, small or big. The text-books should be prescribed in such a way that they are helpful to the social environment of those people. It should be seen that the pupils do not suffer by detention because the conditions of the schooling were such as not to enable an average pupil to finish the course prescribed for one year. "If the student is not able to finish the prescribed course, it should be changed to an easier one, and if he is still not able to finish it, it should be made easier still." [2]

[1] R. V. Parulekar—*Literacy in India*, p. 68.
[2] ibid., p. 70.

Promotion on the low scale, leads to several undesirable results especially in a country like India, where the economic condition of the masses is unsatisfactory. Owing to poverty they are not inclined to spare their children for schooling and if they do so, in most cases, they find that their children stagnate, in the same class for two or even for more years. The children are also disheartened and they loose their interest in the schooling. Again, failure means not merely a loss of one year but in many cases complete stoppage of education. The parent often finding his child detained in the class after a full year's sacrifice of work in the fields, seals the fate of further education.

Thus, the remedy lies in improved teaching and liberal promotion at least in the lowest classes. Otherwise valuable time and money will be lost and there will be no appreciable reduction of illiteracy.

But it should be remembered that elementary education as hitherto imparted in this country has never paid attention either to the environment or to the aptitude of the pupils who go to school. The three Rs were the only consideration that was before educational authorities as a scheme of elementary education. It was good in the beginning, but as a solution of the problem it has become a failure. The huge wastage that goes on in the field of education has been well brought out in the report of the Hartog Committee. It is the Wardha scheme alone which advocates teaching through a craft and which gives a complete course of basic education for seven years, will help to solve the problem of wastage and will make pupils conscious of self-help, cleanliness and physical fitness. "Literacy is not the end of education nor even the beginning. It is only one of the means whereby man and woman can be educated. Literacy in itself is no education." [1]

Recreation :

Compared to the other aspects of village life, the problem of recreation is indeed very much neglected. It is chiefly

[1] Mahatma Gandhi—*The Harijan*, July 31, 1937.

the form of recreation and its practice that reflects on the standard of the people's mental and physical health. In our villages the recreation for men is wrestling and other indigenous athletic sports. With women, the songs which have come down to them by tradition is their chief recreation. Thus the marriage period wherein songs are sung by women and the athletic sports are held by men is the only period, which provides recreation to men as well as women. In other periods of the year, there is great monotony in their life and there are no occasions in their life for merry-making. Thus, only marriages provide occasions for merry-making for all the villagers. It is also the important period when womenfolk sing. The other occasions for singing are the Gauri-Ganpati festivals but they do not give so much scope for singing folksongs as the marriages do.

The importance of folksongs is indeed very great in the scheme of Rural Development as music is the only pastime for the villagers which helps to refresh them in their work-worn life. The Bharatpur State is probably the only state which has recognised folklore as an important feature of rural life. It has collected folksongs from the State and put them in notation under the guidance of the Principal, Marris College of Hindustani Music, Lucknow.

"The folk song" as Krappe says, "is a song, i.e. a lyric poem with melody which originated anonymously, among unlettered folk in times past and which remained in currency for a considerable time, as a rule, for centuries."[1] Thus the folk songs are very helpful in giving us a correct idea about the social customs and manners of the people and their philosophy of life. They are also helpful in giving the reader glimpses of the past history of the people and their territorial movements even as times move on, their customs and manners change but their folk songs undergo practically no change.

There are only four kinds of songs prevalent among the villages of this Taluka. There are (i) the marriage songs, (ii) the Gauri songs, (iii) the small-pox songs and (iv) the

[1] Krappe, A. H.—*The Science of Folklore*, p. 153.

grinding songs. The Gauri songs and the small-pox songs are not much helpful for getting any sociological ideas about their life, as they are of recent origin and they are even coined day-to-day as, the circumstances in which these people live, are changing. The grinding songs are not like the couplets sung on the Ghat side but they are descriptive long poems, describing the stories from the Ramayan and the Mahabharat. Thus only the marriage songs are important from the sociological point of view as they help to give us a faithful record of the customs, manners and their outlook on their life.

Out of the 20 marriage songs[1] two songs are about the preliminary preparations for the marriage (songs Nos. 1 and 2) ; two songs are about consulting the *Joshis* and the Brahmins for the auspicious day (songs Nos. 3 and 4) ; two songs are about erecting the marriage pandal (songs Nos. 5 and 6) ; four songs are about the ancestral worship (songs Nos. 7, 8, 9 and 10) ; three songs are about the *Halad* and *Tel* ceremonies (songs Nos. 11, 12 and 13) ; three songs are the bridegroom's songs (songs Nos. 14, 15 and 16) and the remaining four songs are the bride's songs (songs Nos. 17, 18, 19 and 20).

The first song opens with the gardener's wife going to a village for hawking flowers. The first part of the song gives the description of the plantation of the *Zendu* flowers. The *Zendu* flowers are required for the decoration of the marriage pandal. It may not be true that these *Zendu* flowers are bought from the gardeners nor may it be correct to assume that these *Zendu* flowers are bought beforehand for the marriage ceremony that is to come in a few days. But the song serves as a harbinger, suggesting that the agricultural operations are over, that the days of the toiling in the fields are gone, that a bumper crop is at hand (line 11)[2] and therefore, a new era of joyful days (i.e. the marriage days) is to be ushered in, soon ! (lines 30, 31, 32 and 33). Throughout the song there appears a sense of satisfaction and joyfulness, which the agriculturists have got after working hard in the fields

[1] The original Marathi songs are given in Appendix No. 2 and the English translation of these songs is given in Appendix No. 3.
[2] The lines are referred to the English Translation.

as they can see a reward in the form of good harvest. The cows and bullocks are not lean and emaciated, but they are all strong, boisterous and sturdy (line 42). The song serves well as a connecting link between the agricultural-operations period and the harvest period and also between the troublesome days of the rainy season and the joyful days that are to come !

The second song is also of the same type. Therein also, in the former part, the description of the agricultural operations is given. The vivid and minute description about how the turmeric plant is cultivated is given (lines 5-10) and the detailed description of the upshooting of one leaf, two leaves, three leaves and so on (lines 12-15) and ultimately the plants giving bagfuls of turmeric (line 18), indicates how the agriculturists were toiling and moiling during the agricultural operation period and how ultimately they have got good crop to their full satisfaction and naturally they are waiting for the joyful days of marriage.

In both these songs much importance is attached to the gardeners (*Malis*). The villagers from whom these songs are collected are not the gardeners themselves. There is vast difference between garden plantation and the kharip plantation, i.e. the plantation of rice, during the monsoon days only. The minute description as to how the plantation of *Zendu* flowers (song 1, lines 1-6) and the plantation of turmeric (song 2, lines 5-10) is carried out, shows that such plantation system cannot be in vogue in a tract like the Bhiwandi Taluka, but it shows that the system of plantation is from the Ghat side. For instance in the song No. 2 (line 9), a reference is made as to how the water is drawn by a water-wheel which is a distinct feature of the Ghat area. It cannot be said that the agriculturists of the Bhiwandi Taluka have migrated from the Ghats, but this much can be said that there existed intercommunication between the Ghat tract and the Bhiwandi Taluka, which is separated from the Ghats by the Syhyadri Mountains and they could mark the striking difference between the methods of cultivation in the two tracts.

In these two songs some reference is made to their social and economic life. These villagers used to have a bag prepared out of the deer-skin (song 1, line 25) and used to keep their money in it, which was placed under the roof (line 24). The males used to wear upper cloth (song 1, line 27) and at the end of the upper cloth they used to tie their money (song 1, line 27). The women used to cover their head with a part of their saree, which served as an upper cloth and at one end of the cover, they also used to tie their money (song 2, line 35). Copper bowls were used by them in their houses (song 2, line 41).

Songs Nos. 3 and 4 are about consulting the *Joshis* and the Brahmins. The former song gives information as to how the elderly members of both the families assemble together for discussion as to whom they should refer to for the auspicious day. It seems that these people had their own *Joshi* (song No. 3, line 8), whom they used to consult for the auspicious day and if they were not satisfied with his forecast, they used to go to the village Brahmins for consultation (song 3, line 16). These *Joshis* may be the *Gotaranas* of their communities who were taken till recently to be the wise persons, to whom all the matters of disputes were referred and their advice was sought in personal matters also. But recently these *Gotaranas* have lost all their influence over the people and now even small disputes are referred to the courts. It seems these *Joshis* were not literate as they never used to consult any scriptures, but on the strength of their memory and general knowledge, they used to tell the auspicious day and time, after counting their fingers and nails (song 3, line 14). But the Brahmins on the other hand used to refer to a heap of scriptures (song No. 3, line 29) and after reading all of them thoroughly used to tell the auspicious day and time for the marriage ceremony (song 3, line 31).

In the song No. 4 there is only a passing reference to the forecast of the Brahmin. The Brahmin is taken to be an expert in matters of giving forecasts, and gives the correct time when the tie of the bride and bridegroom is to be fixed.

The tie is compared with a silken knot, as the silken knot cannot be untied so the marriage fixed by the Brahmin cannot be broken.

These two songs (i.e. songs Nos. 3 and 4) also give an insight into the social life in those old days. Cots were generally used in their houses (song 3, line 3) and due reverence was given to old men, as the grandfather of the bride was sitting on a separate cot, while the father of the boy and the father of the girl were sitting together on the other cot (song 3, lines 4 and 5). It also shows that although the *Joshi* of their communities might be consulted for the auspicious day, yet they had not full faith in his reading and the final authority was the Brahmins (song 3, line 17). The *Tulshi* plant was not worshipped daily by these villagers and therefore, there was no necessity of the *Tulshi-vrindavan* being in front of their houses, but the Brahmins used to worship the *Tulshi* plant daily and, therefore, the *Tulshi-vrindavans* were built in front of their houses. The Brahmins used to give due respect to the agriculturists as when the Brahmin saw the agriculturists coming to his house, he went forward and received them and inquired with what purpose they had come to him (song 3, line 22).

In the song No. 4 there is a background of the harvest season being completed and the paddy has brought good price. The prospective bridegroom is much pleased and he goes to the place of his father-in-law. The beating of the black drum is the very echo of the joyfulness of his mind and the sound reaches the fields, where the fields of the prospective father-in-law must be nearby (song 4, lines 1 and 2), so it must have reached the ears of the members of the father-in-law's family producing corresponding joy.

After the date of the marriage is fixed the next important item is of erecting the marriage pandal. The songs Nos. 5 and 6 give the detailed information with regard to the requirements of erecting a marriage pandal. The branches of the

mango trees, that of *jambul* trees and that of *umbar* trees are considered auspicious for it (song 5, lines 1 and 2). The branch of the *umbar* tree is kept in the pandal and round about it the ground and the way leading to it in the pandal is besmeared with cowdung (song 5, line 10). The *umbar* branch is considered to be very auspicious and its importance is well emphasised by way of conversation between the mango tree and the *jambul* tree, as the mango tree tells the *jambul* tree to go together to the *umbur* tree for inviting him for the marriage pandal (song 5, lines 1 and 2). The spreading of the branches of the *umbar* tree, one to the sky, the other to the under-world and the third to the marriage mandap, allegorically represents the auspicious and never-ending continuation of the family line (song No. 5, lines 6-9).

The song No. 6 gives detailed information about other things that are required such as oil, dates, cocoanuts, *kunkum,* cords etc. (lines 1-8). The mention of a Bohori in the song (line 6) may perhaps be explained that the change in the song has taken place during the course of transmission, suitable to the recent environment where the Bohoris have captured a good deal of the market. This is a good example of how the songs gradually evolve as they pass through the minds of different persons and through different generations. This song also tells the religious rites that are carried out in the marriage pandal. The sacred post is erected in the centre of the pandal and on it cocoanuts are tied (line 13). The ripe betelnuts also are tied to the stake (line 14). It is decorated with the *Palas* and mango leaves (lines 20 and 21). The importance of cocoanuts and betelnuts is suitably described in the song. The betelnuts are always considered to be auspicious and a symbol of festivity. It shows the antiquity of betelnuts. The last two lines of the song suggest that the ornaments are to be made beforehand to be presented to the bride, on the marriage day.

After the pandal is erected invitations for the marriage are sent. The first invitation is made to the ancestors. The songs Nos. 7, 8, 9 and 10 give a vivid description of such

invitations. These songs strike a pathetic note but the pathos is mingled wonderfully with the philosophic attitude of these people with regard to the passing off of their ancestors and their rebirth in their families (song 8, last line) and that they consider that the departed are still participators in their joys and sorrows.

In the song No. 7 an appeal is made to the bee that it should go to the heaven and should invite the ancestor Shapuraj[1] for five days for the marriage ceremony. The song presents the primitive idea that birds and insects, that fly up in the air, are the messengers of heaven. The same idea is also running in the song No. 9. The ancestors are considered to be living beings in the heaven and they have got their houses there. When the bee went to the ancestor Shapuraj, a seat was offered to him and he asked whose marriage was to take place. The lines 9-18 give a description of the efforts that have been made by the ancestors in the interest of the family which have been fully fulfilled and the children that have been left by them, have grown up to the marriageable age. The bee requests the ancestor Shapuraj that whatever may be the expenditure for coming down, it must not be taken into consideration but he should come to the marriage of his grandson and give him his blessings. To which the ancestor Shapuraj replies that it is not possible for him to go for the marriage and that the marriage should be celebrated by all their kith and kin (lines 21 and 22).

In the song No. 8, there is a melancholy note with regard to the passing away of the ancestor, saying that the auspicious time has come, heaps of food are cooked and in spite of all relatives taking their food from the house, the corner of the inner room where the food was stored is not yet empty. The only thing that is decreasing is the merit of the ancestor, as he is not present at the marriage. *Joriya* is taken to be the God of Death and the question is made to him (line 9) as to why the ancestor Shapuraj who was ruby-like, was taken away so hastily. But this melancholy note is toned down in

[1] Name of the ancestor. The suffix 'Raj' signifies reverence for the ancestor.

the last line by offering the consolation that the ancestor Shapuraj has been taken away for being reborn in the family.

This song suggests the people's ideas about after-life and especially that the departed male relative is transformed into a sort of an angel of death. It is interesting to note that the belief of the folk is that, even after death the members of the family form a homogenous group and one of them is deputed to take away the soul of the dying man. It also suggests that the departed soul is again reborn in this world with the injunctions of the Manes. This belief represents the crude philosophy about death which brings consolation to the mourners that the dead shall be restored to them soon and the family line will continue.

The song No. 9 gives ideas similar to those of the song No. 7. But the beginning of this song is quite different from the song No. 7. In this song a bird asks a small bird to go to heaven and request the ancestor 'Ramraj'[1] to come down, to attend the marriage of his son, while in the former song the relatives speak with the bird, requesting him to go to heaven for inviting the ancestors for marriage. The ending of the two songs is also different. In the former song the ancestor replies "We shall not come again, let all the kith and kin, invited for wedding be present." While in this song the ancestor replies that a *toran* or arch be prepared out of the branches of the mango trees that he had planted and be kept hanging in the marriage mandap, which will signify his presence in the mandap.

The song No. 10 does not give any melancholy note regarding the departure of the ancestor. In the former part of the song there is a description of the marriage preparations and the smell of the preparation of the soil goes to the assembly of the Gods in the heaven, wherein Bhauraj[1] the ancestor has an honourable seat and thus it is made known to him that the marriage is to take place at his house. In the latter part of the song there is no mention as to what the ancestor

[1] Name of the ancestor. The suffix 'Raj' signifies reverence for the ancestor.
[2] ibid.

has to say but the reference is made to the house of the Bhauraj as fully equipped. Perhaps the ancestor Bhauraj feels satisfied that nothing is left wanting for his dependants and that during his lifetime he had done his best in the interests of his dependants.

Songs Nos. 11, 12 and 13 describe the *halad* and *tel* ceremonies. In song No. 11 there is mention of the invitation made to the village God by offering him a *vida* of five leaves (song 1, lines 1-3) for attending the marriage ceremony. It is interesting to note that the wife of the village God, who was excessively fair, was engaged in grinding. The villagers feel that as he is the God of agriculturists, he has to work for his livelihood. The village-god is told that the marriage is to take place in his name and that he should be present (line 7). The mention of the fact that there is plenty of food also, signifies that during the marriage days the God should not work and he and his wife should take their food at the marriage-house (last line). This is the practice prevalent among these villagers that the relatives are not to cook at their houses, during the period of marriage, but they have to take food at the house where the marriage takes place. This system is allegorically suggested while referring to the village-god.

The song No. 12 seems to be of recent growth and does not give any insight into the manners and customs of the people and there is no consistency of thought in it.

The song No. 13 mentions how the custom of pounding turmeric as well as some leaves like the jasmin which are considered auspicious, is carried out. The leaves of the jasmin are considered to be the best skin tonic and a luxury. The fine paste of the leaves etc. is first offered to the village-god (last line). To add to the glory of the ceremony the heavenly nymphs as well as the golden slabs and coral grinding stone are beautifully alluded to (lines 10-13).

There is also a reference in this song to the ancestors. The smell of the paste reaches the assembly of the gods where the ancestor has an honourable seat (lines 7, 8 and 9). There

is no sadness in the song. Perhaps the mention of the ancestors is made, with an idea that they may have blessings from the ancestor, for the ceremony.

The songs Nos. 14, 15 and 16 are the songs, which describe the bridegroom and his party. In the first two lines of the song No. 14, the description is given of the bridegroom and his party, coming to the marriage pandal, at the bride's place. Generally the marriages were arranged between persons coming from different villages and the bridegroom and his party had to go to the village of the bride. There is a fine simile in the first two lines, which refers to the bridegroom's party coming down from the hill, appearing like a boulder tumbling down the hill. The resemblance to the boulder suggests the speed of the party and the reference to the rowing across the river is a fine idea as the people waiting for the bridegroom's party, can see the party from their village as if going up and down like a boat in a river. The latter part of the song alludes to the custom, where the covering of the face of the bridegroom is to be taken away by the younger sister of the bride and unless she approves of him, he cannot enter the marriage pandal. For this he has to make a present to his would-be sister-in-law.

The song No. 15 also refers to the occasion when the bridegroom is taken in a procession to the house of his father-in-law, to wed. But this song unlike the previous one is sung by the women of the bridegroom's party. As the party approaches the house of the bride, the people from the party see a gathering of men and women waiting to receive them. Then the question is put to the bridegroom as to who those persons are who had assembled to receive him and he is told by them that the old men are his fathers-in-law, the old women his mothers-in-law, the young boys his brothers-in-law and the young girls his sisters-in-law.

The song No. 16 allegorically refers to the marriage by capture, which is represented by the mock capture of the bride, by the bridegroom. The bride is either hidden or tries to run away and the bridegroom makes a search for her and

finally catches her by the little finger of the left hand and brings her to the pandal, where a large gathering of relatives and friends await the arrival of the bridal pair.

The songs Nos. 17, 18, 19 and 20 are the bride's songs. The song No. 17 states how the bride is fortunate as she has got a father-in-law, a mother-in-law, a brother-in-law, a sister-in-law etc. who are kind to her. As the song indicates, it is sung by the mother of the bride and she is very much pleased to see that her daughter is placed under the care of elderly persons who look upon her as their own child. This song reflects the social background viz. that the people are pleased to see that their daughters are placed in a joint-family. The simile given in the first two lines is exquisitely fine. It suggests that the house of the bride when it is full of all the members of the family is as valuable as a necklace of nine strings which is obtained by crossing the seven oceans.

In the song No. 18 the bride is compared with the pumpkin creeper which bears large and beautiful flowers and is supported by the pandal. The simile is very fine as the bride's face is indirectly compared with a pumpkin flower and as the pumpkin flowers are large and reddish, displaying the splendour of the moon, by which the health and joyfulness of the bride is indirectly suggested. Again, the pumpkin creeper has to take support of the mandap, so also in the song the bride is advised by the elderly women to bring her husband with her who is her full support. The song is very simple but at the same time is very vivid and suggests a polite and sober outlook on life throughout. It also refers to the social custom of wearing the *saree* over the head especially on the auspicious days.

The song No. 19 refers to the conflict between the joint-family life and the separate one. The husband wants to throw away the burden of the family responsibility and is desirous to have an establishment of his own, where he and his young wife can enjoy. But the young bride, shrewd and yet bashful, objects to his plan on the plea that when there are no elders nearby, the husband may illtreat her and there

would be no one who would sympathise with her. The husband says that he would not do so but on the contrary her word shall be the law in the household. The abrupt ending of the song probably means that the bride consents to go with him. The song beautifully reflects the psychology of the newly married couple. The man is eager to have complete possession of his wife and show his ability to run a household of his own, without the interference of the elders. The young wife on the other hand displays feminine apprehension about the man and is willing to stick to the modest role of a daughter who has been tenderly looked after, by her people. The idea of ruling a household which has occurred to her husband is yet unknown to her. The reference to the betelnut in the first line suggests slenderness and the red and healthy complexion of the bride.

The song No. 20 gives a graphic description of the departure of the bride from her parents' home. The work of watering the plantain plantations was so far carried out by the bride. But now she asks her father to carry it out as she is going to her husband's house. When being asked where she is going, she tells that she is going to her father-in-law's house as she is fond of her parents-in-law, while the father may not like the idea of sending his daughter to her husband's place, so soon, although he has taken the bride-price.

(ii) Economic Problems

Agricultural Labour :

Rice-planting essentially requires agricultural labourers on a large scale, as the various operations which depend on the rain have to be carried out within a limited time. In our survey, out of 760 families, 197 families, i.e. nearly 27 per cent are entirely dependent upon agricultural labour for their livelihood. It is thus obvious that the agricultural labour forms the backbone of the whole agricultural system in the Taluka.

There are two different types of agricultural labourers in the Taluka. The first type does the agricultural labour

work on daily wages and the other type enters into an agreement to serve his master in his fields in return for a loan of money. The first type comes from the agricultural communities such as the Kunbis and the Agris, but in the second type the Varlis, the Katkaris and the Thakurs form a large majority.

There are several occasions when the casual labourers are employed during the plantation work. The ploughman is sometimes taken to plough the fields. He has to plough the fields at the time of sowing the seeds and also at the time of replantation and he is paid Rs. 10 and half a khandi of paddy. Sometimes, he is not paid in cash but he is paid in kind only. He is generally paid one *khandi* for the whole work. In addition to this, $3\frac{1}{2}$ maunds of paddy are given for his maintenance or he is actually given food three times a day during the period of work. At the time of replantation several labourers are required. They are taken mostly from the Kunbi, the Agri, the Mahar and the Chambhar communities. They are paid Rs. 5 each, for the replantation work, and three meals a day, during the period of work. The Katkaris and Varlis are paid per head Rs. 3 in cash, together with one maund of paddy and five *paylis* of *nagli*. At the time of replantation the labourers are in great demand, therefore, the agriculturists have to make a contract beforehand with the labourers. The work generally lasts for three or four weeks and the labourers are paid $2\frac{1}{2}$ rupees in advance and are to be given three meals a day. Otherwise the labourers sometimes demand even 10 rupees for the work at the time of replantation. The work of weeding the plantation requires 10 to 15 days and for that the agriculturists have to pay four or five annas per day. At the time of cutting the paddy the labourer is paid 3 rupees per month, in addition to three meals per day. At the time of threshing, the agriculturists have to pay the labourers four or five annas a day, for about 15 days, together with meals thrice a day. During the off-season these labourers get some odd work at times on the fields and they are paid at the rate of 2 *paylis* of paddy per day together with meals. Sometimes these labourers have small pieces of

land and in order to get cultivated one acre of land from these agriculturists, they have to serve on their fields for 2½ months during the season.

But on an average, on the Padgha side, the labourers are in great demand during the season, i.e. from June to September. This may probably be due to the fact that the tract is hilly and malarious and as such the population is not so thick as in the other parts of the Taluka and, therefore, some land is generally left uncultivated owing to the paucity of labour. At the time of replantation the Ghatis from Igatpuri side come to Padgha, at their own expense, after finishing their own agricultural work. The agriculturists go to Padgha and get these men for their agricultural work. They have to pay four or five annas besides three meals per day. Some of them again come in the month of May for repairing the boundaries of the fields, but at this time they are not in much demand.

Besides these casual labourers the agriculturists generally employ permanent servants. Table No. 8 on page 213 shows the total number of such servants in the 760 families under survey.

The different divisions shown in the above table are according to table No. 6 of Chapter four, showing different sizes of holdings. The first division has no lands ; the second, lands upto 5 acres ; the third between 5-10 acres ; the fourth between 10-20 acres ; the fifth between 20-30 acres ; the sixth between 30-40 acres ; the seventh between 40-50 acres and the eighth division more than 50 acres. From the table it can be seen that in the A group there is a higher percentage of families who have to employ permanent servants than in the two other groups. It is 64.3 per cent in the A group ; in B 27.9 per cent and in C it is negligible. It is thus obvious that the number of permanent servants depends upon the size of the holdings of each family.

These servants are generally taken from the Varli and the Katkari communities and sometimes also from the poor Agri and Kunbi communities. Generally, money is advanced for the marriages of these servants, and in lieu of the amount

TABLE No. 8

(showing permanent servants on the fields, in the three Economic Groups)

Divisions	A			B			C			All		
	Servants	No. of families having servants	Total families	Servants	No. of families having servants	Total families	Servants	No. of families having servants	Total families	Servants	No. of families having servants	Total families
I	...	...	...	41	22	96	3	2	116	44	24	212
II	...	...	...	78	55	251	2	2	81	80	57	332
III	26	10	15	76	35	103	...	...	...	82	45	118
IV	56	19	34	22	14	31	...	...	...	78	33	65
V	45	15	21	...	...	...	...	...	...	45	15	21
VI	6	3	4	...	...	...	...	...	...	6	3	4
VII	13	4	4	...	...	...	...	...	...	13	4	4
VIII	15	3	4	...	...	...	...	...	...	15	3	4
Total ...	161	54	82	197	126	481	5	4	197	363	184	760

they have to serve their masters at the rate of Rs. 10 per year. During the service period they are maintained by their masters and clothes are also provided. Sometimes their wives are also maintained by the masters. The marriage expenses of the Varli and the Katkari servants are about Rs. 75 to Rs. 100 and that of Kunbi and Agri servants are about Rs. 200. The Kunbi and the Agri servants have to spend more for their marriages simply because they have to pay for their brides on a higher scale. Generally, the bride's price in the Kunbi community is about Rs. 45 but these Kunbi labourers have to pay about Rs. 75 or so, simply because the fathers of the girls are unwilling to give their daughters to the agricultural labourers, unless they receive high price.

The Varli and the Katkari labourers sometimes run away after the marriage is over and go to the adjoining talukas or to the Jawhar State and it is very difficult to trace them. So, the agriculturists while arranging the marriages of their servants from these two communities, try to find out minor girls for their servants, so that the servants stick to their services as long as their wives are minor.

Out of the season, the labourers of the first type have no work and they have to spend a lot of time in idleness. Sometimes to get some labour on road they have to walk a distance of 5 to 6 miles. But during the season, i.e. between June and September, they are always in great demand, in the Taluka, so much so that the agriculturists have to pay heavily for the labour. Besides, a large number of labourers are imported into the Taluka from Igatpuri side in the Nasik District as it is convenient for these people to come to this Taluka after finishing their own agricultural work.

Cost of Production :

It is very difficult to get at the cost of production as an Indian cultivator does not keep accounts of the cost that he has incurred. An intensive study of the cost of production requires day-to-day recording of expenditure, but it was not possible in this survey to undertake such a detailed investigation, in any case. For consideration of the cost of produc-

tion, we have taken into account such holdings as can be cultivated with the help of one plough and two bullocks. The average land that can be cultivated with the help of one plough and two bullocks is about 5 acres and we have given below the cost of production for 5 acres in the two different parts of the Taluka, where varying circumstances prevail. It must also be remembered that variations due to seasons and prices make great differences in the income.

The main items of the cost of production are as follows :—

(i) Bullocks
(ii) Implements
(iii) Hired labour
(iv) Manure
(v) Seeds
(vi) Rent and Land Revenue

(i) **Bullock :**

Those cultivators who do not possess bullocks have to hire them, during the agricultural season and they have to pay $1\frac{1}{2}$ *khandis* of paddy per pair to the owner of the bullocks. During these five months the cultivators have to bear the cost of the maintenance of the bullocks. In the case of those farmers who possess their own bullocks, they have to maintain them throughout the year, although the bullocks are generally unemployed for seven months.

(ii) **Implements :**

The indigenous implements are cheap and are easily made and repaired by the village-smiths and carpenters. The expenditure on implements is thus negligible.

(iii) **Hired labour :**

Generally the farmer and the members of his family are all employed on the fields during all the seasons, but a certain amount of hired labour is indispensable, as the rice plantation requires the operations to be carried out within a limited time. It ordinarily requires Rs. 45 for hired labour for a holding of 5 acres.

(iv) **Manure :**

During the fair seasons the women-folk of the farmers collect cowdung and also grass that is grown in the Varkas

land and heap it for manure. The dried leaves of the trees in the forest are also utilised as manure. The dung of sheep and goats provide a very good manure but the farmers of this Taluka do not keep or collect it on any appreciable scale. If herds of sheep and goats are brought here by the shepherds of the Ghats, these farmers request the shepherds to keep them in their fields on daily payment. The export of hides and bones, oil seeds and food grains, in large quantities, is chiefly responsible for the scarcity of good manure. Besides, the agriculturists are generally careless and allow to be wasted the cattle-dung and urine, in large portion. The cattle-dung is generally used as fuel in many villages, especially in the non-forest villages, during the fair season, on a large scale, probably due to the scarcity of fire-wood.

(v) **Seeds :**

The selection of good seed is a very important item for a good crop. But unfortunately the farmers do not make a good selection and keep it for the next season. They generally approach the *Sowcars* or their landlords for seed at the time of sowing and they have to return $1\frac{1}{2}$ times the quantity borrowed. For a holding of 5 acres the cost of seed is ordinarily Rs. 12.

(vi) **Rent or Land Revenue :**

Strictly speaking these items are not the items of cost of production. But the rigidity of the payment of rent and land revenue is such that they form compulsory direct charges on the gross income of the farmers and have to be paid whether they receive a net profit or suffer a loss. They have often to pay these charges by borrowing. "U.S.A. and England have also recently come to the conclusion that rent of land is a farm cost."[1] It is reasonable, therefore, that these items should be included in the cost of production.

The following table shows the average cost of production for 5 acres on the East and West side of the Taluka.

[1] P. C. Patil—*Principles and Practice of Farm-Costing with Farm Studies*, p. 6.

TABLE No. 9

(showing cost of production for 5 acres)

Items	East Side		West side	
	In kind	In cash	In kind	In cash
I Bullocks ...	1½ khandis	Rs. a. p. ...	1½ khandis	Rs. a. p. ...
II Hired Labour ...				
(i) Planting ...	...	12—0—0	...	12—0—0
(ii) Replanting ...	...	12—8—0	...	12—8—0
(iii) Miscellaneous cost for tobacco etc. ...	...	2—0—0	...	2—0—0
(iv) Taking at weeds	...	7—0—0	...	7—0—0
(v) Threshing ...	...	4—0—0	...	4—0—0
(vi) Harvesting ...	...	7—8—0	...	7—8—0
III Seed	...	12—0—0	...	12—0—0
IV Manure	...	10—0—0	...	10—0—0
V Implements ...	...	1—0—0	...	1—0—0
VI Rent	7½ „	...	10 „	...
Total ...	9 khandis	68—0—0	11½ khandis	68—0—0

There is no difference between the actual expenses, obtaining in the two sides of the Taluka, except that on the west side the rent of land is higher than in the east. The total cost of production for 5 acres on the east side comes to Rs. 68 plus 9 khandis. Taking into consideration the average rate of Rs. 14 per khandi of paddy the total cost of production on the east side comes to Rs. 194 and on the west side to Rs. 229. The cost of maintenance of two bullocks for five months if they are hired comes to about Rs. 25 and even if they are not hired the total net cost of maintaining two bullocks throughout the year will be at least Rs. 46, i.e. (Rs. 25 + 1½ khandis). Thus, the net cost of production on the two sides comes to Rs. 219 and Rs. 252 respectively giving an average of Rs. 43-12-10 per acre on the east side and Rs. 50-12 per acre on the west side. The average production of the east side is about 4 khandis per acre which comes roughly to Rs. 56 and on the west side it is 4½ khandis on an average, i.e. Rs. 63 per acre. So, the net income in this case will

be Rs. 12-3-2 on the east side and Rs. 12-4 on the west side per acre, not taking into account the cost of the labour put in by the farmer and his family.

In the case of the farmers owning their lands, in the last item instead of rent there will be land revenue. The land revenue on the east side is Rs. 5-12 on an average and on the west, Rs. 7-4. So the total cost for five acres in this case will be Rs. 105-4, on the east side and Rs. 125-4, on the west side, i.e. roughly Rs. 21-1 per acre on the east side and Rs. 25-1 on the west side. Thus, the net income per acre in this case is Rs. 31-15 and Rs. 37-15 respectively.

The Marketing of Paddy:

Out of the total outturn of 8,87,023 tons of rice[1] in the Bombay Presidency, Konkan produces 5,35,207 tons i.e. roughly 60.3 per cent of the total outturn of the province. The Thana District produces 165,276 tons, i.e. nearly 19 per cent of the total Province outturn. So, it is obvious that rice is the important crop of Thana District. From table No. 6 of the first chapter, it can be seen that, in the year 1937-38, 550,285 mds. of rice worth Rs. 23,01,540 and 9,360 mds. of paddy worth Rs. 17,161 were exported from Bhiwandi Taluka. Thus, it is clear that Bhiwandi is one of the biggest centres of rice export and the marketing of rice is an important problem to the agriculturists of the Taluka.

The marketing of rice starts in the month of November and by May, about 60 per cent of the total production is marketed, the remaining 40 per cent being sold in the remaining part of the year. Much of the rice from Bhiwandi Taluka is exported to Kathiawar by country crafts, during the fair season, i.e. during the months November to May, as during the rainy season the coastal transport is completely stopped. That is one of the main reasons why the marketing of rice is brisk between December and May. The other reason is the immediate need for hard cash as the agriculturists cannot afford to wait for the market to rise.

Generally, the farmers use the inferior type of paddy for

[1] *Season and Crop Report of the Bombay Province*, 1937-38, p. 92.

their consumption and keep the superior quality for marketing. The various varieties of paddy that are meant as money crops are as follows : (i) *Halvar Ghudya*, (ii) *Halvar Zini*, (iii) *Kasanya Ghudya*, (iv) *Garava Zinya*, and (v) *Gholavadya*.

Some twenty years back, some of the agriculturists used to carry out the marketing of paddy themselves. They brought their produce to Bhiwandi town, in their own carts and got a fair price. Even some of the well-to-do agriculturists used to buy paddy from the adjoining villages or from the Jawhar State and used to prepare rice and bring it to Bhiwandi for marketing. But this system has altogether stopped now, partly on account of the *palemode* system and partly on account of the establishment of rice mills at various centres. The *palemode Sowcars*, in lieu of the money advanced during the year take paddy from the agriculturists. From table No. 8 of Chapter V, it can be seen that 167 families were indebted to the *palemode Sowcars* and they had to give 1,134¾ khandis of paddy for their debt, practically at half the price. From table No. 14 of Chapter IV it can be seen that the total paddy received by all the families is 18,479¼ khandis, out of which 11,118 khandis are required for consumption and the remaining 7,371¼ khandis are left for marketing. Out of this quantity 1,134¾ khandis are given to the *palemode Sowcars* in lieu of their debts, which forms 15.4 per cent of the paddy that is to be marketed. This kind of system of lending money is followed by most of the local *Sowcars*, but the Muslim *Sowcars* follow it on the plea that the Islam religion disallows to take interest. On account of this system, which is prevalent throughout the Taluka, the farmers have become absolutely helpless and whatever may be the system of marketing or however it may be improved, the agriculturists are unable to get any advantage, as long as this system of money-lending is prevalent. They only produce paddy and the marketing is left for the intermediaries.

The farmers who are out of the clutches of such *Sowcars*, have to carry out the marketing of their goods themselves.

But generally these farmers are forced to sell off their commodity, at whatever price that is available, to the itinerant dealer who is always on the move, during the harvest period. They cannot wait for a better price as they are always in need of cash, for the payment of the Government Land Revenue.

An insignificant fraction, i.e. not more than 5 per cent of these agriculturists brings its paddy to the Bhiwandi market, in its own carts or in hired carts. The cost of conveyance is of course borne by them. They have to pay 0-1-6 as the toll tax per cart. The carts are then unloaded at the Bhiwandi market and two annas are paid for unloading, which is known as *hambali*. Then they are approached by the wholesale dealers in paddy, or by their agents. They take out the samples of paddy by means of a bambu stick, if the paddy is in bags and they see that proportion of dirt, undeveloped grain and also the proportion of different varieties of paddy intermixed found in the sample. Turning the paddy into rice, by hand, they estimate the proportion of broken grains, and the colour of the grain, as grain of yellowish tinge indicates that the paddy is rain-touched and is a mixture of different varieties. After taking all these factors into consideration, the price is offered and if the agriculturists accept, the bargain is struck. But very often it so happens that the merchants or their agents offer a very low price, knowing that the agriculturists have to sell off their goods and go home by evening as they find it rather inconvenient to wait for the rise in the market. The only course left to the agriculturists is either to sell off the goods at the available price or to take it back, home, which means a lot of difficulties and worries and expense.

But the agriculturists, if they are not satisfied with the price that is offered, do not take back their commodity to their villages, but ask the millowners to turn their paddy into rice and sell it off to the agents of the Bombay merchants on their behalf. The paddy is turned into rice, according to the convenience of the millers and obviously the paddy lies idle in the mill compound for 7 to 10 days. The agricul-

turists are to depend entirely upon the millers, with regard to their turn-out into rice, which may be 11 to 12 *furras* per *mudha* (i.e. 4 khandis), although it is possible in some cases to get 13 *furras* per *mudha.* The husk of one *mudha* paddy comes out to nearly 3 *furras* and it is generally sold at 0-8-0 a *furra.* The broken parts of rice called *kani* is about 3 *furras* per *mudha* which if sold brings Rs. 3 per *furra.* But generally the agriculturists take this broken rice, home, for their consumption. The millers generally sell out the rice at the available price, to the agents of the Bombay merchants and pay back to the agriculturists after deducting their charges. But unfortunately these millers do not pay the agriculturists in a lump sum. The agriculturists have to go to Bhiwandi several times and receive each time only a part payment. In this way the agriculturists have to spend five to ten rupees, for their conveyance and other sundry charges and as they do not get the full payment at one time, they are put to a heavy loss.

There is a total absence of grading of paddy on the part of the agriculturists. The sale is taken generally as a mass sale, with the result that even though the farmers produce superior quality, it does not fetch reasonable price. The commodity is generally carelessly prepared and it contains a large percentage of impurities and different types of grains. Thus there is no definite system of classification and grading and thereby the agriculturists do not get adequate prices. Without gradation, there will be no improvement in the methods of production or marketing. But if the gradations are fixed, the cultivators would, naturally, in order to get better prices, be encouraged to grow high-quality rice, keep it separate and bring it to the market in a clean condition. Besides, there is a possibility of building reputation for one good commodity in the Taluka and once such a reputation is built up, it will not be difficult to take measures to avoid mixing and deterioration and it will be also very easy with the help of the Agricultural Department to improve the seed.

The problem of marketing, in the Taluka, has also become more complicated owing to the different units of weights and measurements in the Taluka. It is generally accepted that, many different methods of weighing and systems of weights and measures in vogue, lend themselves to dishonest practices by the unscrupulous. Such system provides a good scope for exploiting the illiterate and ignorant grower-sellers and it also stands in the development of market-intelligence, service and trade. Thus the unit on the Padgha side is a *mudha,* i.e. 28 maunds and on the Kharbao side a *khandi* of 20 maunds. Prior to the introduction of the Bombay Weights and Measures Act of 1935, the seer was constituted of 54 tolas for paddy and 76 tolas for rice, in the Taluka. But in Kalyan which is the adjoining Taluka, it was 51 tolas for paddy and 75 tolas for rice and for the Bassein Taluka it was 108 tolas for paddy and 149 tolas for rice. As a matter of fact for every Taluka in the District the seer was constituted differently, both for paddy and rice. According to the Weights and Measures Act, the weights and measures are standardised, but they have not yet come into universal use especially in the villages and the *Sowcars* make use of the old measures if it is convenient for them. The agriculturists cannot demand the new types of measures as they have entirely to depend upon the *Sowcars* for future financial help.

The Government of Bombay has passed an Act in the year 1939 for regulating the markets in the Bombay Province and attempts are being made to regulate the Bhiwandi paddy, by the Marketing Department of the Bombay Province. But it is clear that so long as the agriculturists are in the clutches of the *palemode Sowcars,* there is not the least possibility of improving their lot and they cannot get the advantage of the improved market scheme, even if it comes out successful. Secondly, they are not in a position to wait for marketing their produce, at a time when the prices are higher but they have to dispose off their goods at the earliest opportunity for the payment of the Government assessment and for such other immediate needs and thus they are unable to hold up

their goods for better prices and to regulate the market supplies.

Small-Scale Industries :

(i) **Paddy-husking and flour-making :**

Before the advent of the mills in the Taluka, i.e. nearly twenty years back, paddy-husking and flour-making was strictly a rural handicraft and it provided a subsidiary occupation for the villages. This was not confined to any community and as such the field for the recruitment was very vast. The agriculturists used to turn paddy into rice, in their villages and then take it to Bhiwandi market, in their own carts. Some villagers used to collect paddy from the neighbouring villages, on a small scale, get it husked out and take it to the Bhiwandi market. Generally, women used to carry out this work and they used to get two annas per day, together with some broken rice as their wages. This was a good income, in view of the fact that the work was carried out during the off-season. But this indigenous industry has practically died out, owing to the cheapness and quickness of the mills and today all the villagers take their paddy to Bhiwandi and keep it with the millers to be turned into rice before it is marketed.

In addition to the employment which the villagers of all the communities thus used to get, there were various other advantages from this indigenous industry. The by-products of the industry used to remain in the villages which were of immense value. The husk was used as manure and was also used by the village potters and the blacksmiths. At Bhiwandi it is sometimes used now, as a fuel for the steam engine and it is also used for making the activated charcoal. But much of the husk is wasted as it is pooled down, at one place. The bran was used to feed the livestock and the poultry in the villages but today the villagers are deprived of its use. Besides, in small mills the husk and the bran comes out together, which becomes useless both as fodder to the livestock and as fuel.

The indigenous methods of husking and grinding used to give some work for blacksmiths and carpenters, for preparing the crude tools that are required. But today the machines do not provide such opportunities.

Besides, the mill industry cannot be self-supporting as it has to remain idle during the off-seasons, unless it is combined with oil-crushing and some similar additional work. Amongst the mills in the Taluka there is a keen competition and taking into consideration the cost involved in storing grain, the risk of fluctuation in the prices and the seasonal character of the supply and demand have made these mills unremunerative and risky. This may not affect directly the farmers, but indirectly they have to suffer as the millowners try to compensate their losses by fair or foul means while handling the commodity of the farmers. Again, the turnover of one *mudha* (i.e. 28 mds.) is 11 or 12 *furras* in the mill although it is possible to get 13 *furras* by the indigenous method, as there is a higher percentage of broken rice, during the operations in the mills. The flour-grinding was generally done by the women-folk, early in the morning or it was given to women from the households of the agricultural labourers but now this system has practically died out, as it is much cheaper and quicker to get it done in the flour mills.

(ii) **Oil-Pressing :**

This industry was really in a flourishing condition in the Taluka, some 25 years back and it was carried on, on a large scale practically throughout the Taluka only because there is a large preponderance of *Karanji* trees in the Taluka and oil used to be extracted from their seeds. Moreover the agriculturists used to have the subsidiary crop of Nigar seed and Til, from which oil could be extracted on a large scale. There is a separate community in the Taluka called *Telis*, who are Muslims, coming from the backward communities who did this work of oil-pressing. But as the industry has died out, these people are now the agricultural labourers. In our survey there are 19 families of this community. The industry has died out only because the *feriwallas* visit practically all

the villages of the Taluka. They buy cheap mill oil from Bhiwandi and from Kalyan and take it to the villages carrying it on their shoulders by *kavadi*. This oil is sold at a cheaper rate, the difference in the price of one seer of this oil and the indigenous oil is about two annas. The obvious result is that this indigenous trade is practically dead and gone. These *feriwallas* can afford to sell at a lower rate, partly because the mill-oil is rather cheap and as they carry out the additional trade of buying eggs from the villagers at the rate of 0-0-3 per egg. They also hawk betel leaves, which are not grown in the villages. They also give credit to the villagers on the understanding that the eggs will be sold to them in return for the price of the oil, at the time of their next visit.

Before the advent of the mill-oil, the villagers used to cultivate Sesamum and mustard on a large scale in the *varkas* land and used to give it to the village oil-pressers for extracting the oil. The oil-pressers used to give oil free of charge keeping for them a quarter of the quantity and the oil-cakes. The villagers also used to collect the *karanji* and the *moha* seeds from the forests and for four *paylis* of these seeds they used to get one *payli* of oil. But all those advantages are lost and the villagers are deprived of this little income, which they used to get in their spare time. Today, they have to depend entirely upon import not for the edible oil only, but also for the kerosene oil for burning the lamps, as the practice of burning the *karanji* oil is out of vogue and the kerosene oil has found its way even in the remotest village. Ordinarily, an average family required about three *dhadas* for burning the lamps, in the house and the villagers could easily get the *karanji* seeds for this quantity if they spent about three weeks for collecting. The *karanji* oil-cake is a useful manure for the fields, which is superior to Ammonium Sulphate or the fish-dust as it prevents all possibility of weevil attack on the crop. The *karanji* oil is useful for many skin diseases and it is also very useful for the skin diseases of cattle. The *karanji* trees bear fruits within three years and a full grown tree can easily yield ten bags of the seed. This was a subsidiary income to the villager as he could earn an income of at least

Rs. 5 per year from one tree. But all these advantages are now lost to the villagers and the *karanji* seeds are partly exported but mostly wasted.

The oil-pressers are still keeping their *ghanis* working, although their number is reduced to a considerable extent. They keep on working partly because of their caste, and their pride in their ancestral trade but chiefly because of the lack of any alternative occupation. There is a possibility of reviving this industry as the oil that is extracted is superior in quality to the mill-oil that is available. Recently efforts are being made to experiment upon the vegetable oil lamp giving good light and if it is successful and if it becomes popular, it will replace the kerosene oil lamps, which will give a good lead to the oil-pressing trade. The oil-pressers cannot buy and store the oil-seeds at the harvest time, owing to the lack of finance and the lack of storing accommodation. This can be achieved, if the villagers restart their business on the basis of the co-operative outlook, which is the only solution available for the problem.

(iii) **Dairy Industry :**

This industry is absolutely neglected in the Taluka, which may be due partly to the absence of the marketing facilities and partly to the poverty, ignorance and the insanitary habits of the villagers and also partly to the scarcity of water and pasture in some villages. Except in the few villages round about Bhiwandi Town, the Padgha village and the Vajreshwari village where there is good demand for milk, in all other villages milk is considered to have no value, except for tea or for rearing the calves. The villagers do not make use of milk and the milk products, in their daily food, even though they may be available. Mostly owing to the paucity of fodder and proper care for the cattle, the cows are kept not for their milking capacity but as the mothers of the bullocks.

The improvement of the dairy industry is chiefly an economic problem in many respects. It is of great importance in our Taluka, where there is a widespread poverty among the people and where the dairy industry is in a poor condition.

"The economic aspect of milk also involves the question of scientific breeding and feeding, sanitary housing, proper tending of milch cattle, the provision of cheap fodder, the supply of plentiful and clean water, suitable and rapid methods of transport, the establishment of modern cattle-sheds and modern dairies on co-operative basis."[1] But in our Taluka, the houses are generally unclean, there are no separate cattle-sheds, there is no provision of cheap fodder, as the by-products of rice are wasted and owing to the absence of the indigenous oil-pressing industry, there is scarcity of oil-cakes and the villagers cannot afford to buy the non-indigenous oil-cakes. There is scarcity of grazing lands as it can be seen from table No. 20 of the fourth chapter that only in 77 villages is there a provision of sufficient grazing land. There is intensive scarcity of drinking water in 60 villages as can be seen from table No. 1 from the first chapter and in the rest of the villages there is partial scarcity. There are no easy transport facilities in the Taluka except for the villages situated on the side of the three metal roads and there are only three market places in the Taluka.

But some of these handicaps can be removed, if efforts are made by the villagers themselves and it is probable that the dairy industry may be established in some villages in the Taluka, which will help them both economically and also from the point of view of their health as milk and its products will give them an additional factor in their nourishing diet.

(iv) **Poultry-Farming :**

Poultry-farming is one of the few cheap and remunerative cottage industries and the fowl is "A Home-Savings Bank" for a villager. But the industry is not carried on, on an intensive scale or on improved business line. Most of the villagers keep poultry mainly for their own occasional use The eggs are collected by the *feriwallas* who take mill-oil to the villages, at the rate of 0-0-3 per egg. There is a good

[1] J. C. Kumarappa—*Report of the Industrial Survey Committee*, Part I, Vol. 2, Sec. II, p. 132.

demand for eggs at Bhiwandi, Padgha, Vajreshwari and on the Tansa line. But there is paucity of marketing facilities. It must be remembered that the diet of the villagers is very poor, the quantity of milk available for their consumption is practically nil, so it will be a valuable addition to their diet if the eggs are used in large proportion, as eggs contain proteins which are so lacking in the ordinary diet of these people.

But there are no attempts on the part of these villagers to expand this useful industry, mainly because there is great wastage in the industry. The poultry is attacked by the wild animals and very often they are stolen by the neighbours as it is the common experience in all these villages that stealing hens is not considered to be a serious offence. Many persons are in the habit of stealing hens and if anybody questions them about it, it becomes a source of quarrel in the village. That is also one of the main reasons why the villagers are unwilling to expand their trade on a large scale. Besides, it is generally understood in all these villages that womenfolk are responsible for keeping poultry and the money got therefrom is to be utilised by them for their own purpose. Naturally, men do not look upon it as a source of subsidiary income and do not take any interest in it.

But the poultry and the eggs industry is showing signs of rapid expansion in the province and there is a good scope for the villagers to substantiate their incomes. For that purpose they will have to take special care. Poultry houses should be separately built in order to avoid the attacks of the wild animals. If all the villagers take interest in the expansion of the industry, there will be no cause for quarrels. The eggs should not be sold to the *feriwallas* in a retail way, but they should be properly graded. Large eggs should be capable of commanding higher prices than the small ones. In Bombay, the wholesale dealers have a system of grading the eggs in three groups, viz. (i) *taza* (fresh), (ii) *jaliwalla* (with blood rings and spots) and (iii) *naram* (weak and watery). So if the eggs are graded by the villagers themselves they will be getting the benefit of grading and those eggs which might

be considered as *jaliwalla* or *naram* at Bombay after the parcels reach Bombay, may be consumed locally as fresh eggs.

But all this can be achieved, if the villagers carry out this trade on the co-operative basis, like the 'yellow eggs society'[1] in the Satara District or like the co-operative association started in the N.-W.F. Province, under the Agricultural Produce (grading and marketing) Act of 1937.[2] With the help of the co-operative association, there is a possibility of building poultry farms to improve the breed, to minimise the wastage, to improve the quality of eggs and to grade them in a proper way and to arrange to send them in one lot to a big consuming market like Bombay. This will ensure the villagers a good return from the subsidiary occupation and it will also help to improve their diet.

(v) **Sheep and goats breeding :**

In this Taluka sheep-breeding is not followed on any intensive scale. Out of 760 families, in our survey, 21 families have 89 sheep and goats. Generally, the Muslims, the Varlis and the Katkaris keep sheep and goats and that too on a very small scale. The Varlis and the Katkaris keep them only because they are landless communities and their source of income is labour in the field and in the forests. Sheep-breeding is only their subsidiary source of income. Some of the Muslims keep them only because they can afford to employ a servant to take care of them entirely. But it is not convenient for the agriculturists to keep them as special care is required to be taken of them, especially during the rainy season and owing to the scarcity of the agricultural labourers, these agriculturists cannot afford to employ an independent servant for looking after them. Owing to heavy rains, the climate is not suitable for sheep and goats. If they walk in the mud they are affected by leg-worms and therefore they are always required to be kept on a raised platform specially built for them and naturally the services of a full-

[1] *Report of the Bombay Economic and Industrial Survey Committee*, 1939-40, p. 92.

[2] *Report on Marketing of Eggs in India and Burma*, p. 209.

time labourer are required to look after them. On the hilly tracts where there is no possibility of mud, these sheep and goats can survive and generally the hill tribes are in a position to keep them.

(vi) **Fishing Industry :**

On the side of the Bhiwandi Creek, there are various villages such as Kharbao, Paye, Paygeon, Jue-Nandruki etc., where the fishing industry is carried on on a small scale. But the fish that is caught is not of great importance, as big fish is not available in the creek. The supply of big fish comes from Bassein and the dry fish from Bassein and Virar. During the fair season, some merchants, mostly Muslims from the Taluka take paddy, rice etc. in their carts to the Virar Bazar and on their return bring dry fish. During the monsoon the agriculturists catch river fish, especially when the rivers are over-flooded. They have got a crude method by which they raise a platform against the current of the rivulet and the fish is caught. They dry the fish in a pan over fire and keep it for use in the cold season. This work they do in the spare-time and during night-time, when they have no work in the fields.

The Sonokolis, a hilly tribe, of the Taluka is the fish-catching community on the rivers. There are several rivers in the Taluka such as the Tansa, the Saitani, the Kamveri, the Kumbhari and the Varna, where these Sonkolis catch fish during all the seasons. They generally catch fish during the night-time, as, it is believed that more fish can be caught during night-time. These Sonkolis sell the fish to the villagers and they get two or three *paylis* of paddy for their day's labour.

(vii) **Pottery Industry :**

The *Kumbhars* who do agricultural work as their main profession, do the pottery work, as a subsidiary occupation. They manufacture pots for cooking food, heating water, keeping foodstuffs and storing provisions. The pots are manufactured by the potters from ordinary mud, that is found

in the villages. Almost all the pots are made on the potter's wheel. First a crude pot is made with only the mouth of the correct size, on the potter's wheel, which is removed from the main mass of clay in the wheel, by cutting it off with a piece of thread or wire. When this pot is half-dry, it is given the right shape and size by beating it on a round polished stone with a slab of wood. After this is sufficiently dry, it is ready for the potter's kiln.

The industry is in a crude stage and it only serves the wants of the poor villagers and from the potters' point of view, it is only a subsidiary occupation to be followed only in the fair season. It cannot be expected that these potters can manufacture better quality glazed articles. The first difficulty is of clay as these better quality, glazed articles require clay that will stand the temperature of glazing. The ordinary mud available in the Taluka is not suitable for such articles ; as it will not stand the melting temperature of any glaze which does not contain any lead. The village ' Lap-Khurd ' is mainly Kumbhar's village where pots are manufactured and are distributed in the adjoining villages. There are 13 Kumbhar families in our sample and the income that they have received from this subsidiary occupation is not much. For instance one family has earned Rs. 15 in addition to one khandi of paddy ; another family has earned Rs. 20 and two khandis of paddy ; the third family has earned $2\frac{1}{2}$ khandis of paddy and Rs. 10 ; the fourth family has earned Rs. 20 and $1\frac{1}{2}$ khandis etc. Thus, it can be said that a Kumbhar family gets at the most about two khandis of paddy and about Rs. 20 or so. The paddy that they get is a part of their remuneration as village servants. They have to supply pots free of charge to the villagers, at the time of the marriage ceremonies and they get paddy in return. But this system is dying out, day by day, as there is a growing weakening of customary bonds and assertions of individual rights in all the aspects of the village life and payment by cash is becoming increasingly common. This system was prevalent on the assumption that the artisans were the public servants of the village and in

return for their grants of grain, they were required to serve every member of the community on demand.

The brick business is carried out in the Taluka on a wide scale, as bricks worth about 2½ lakh of rupees are exported from the Taluka. The brick *Karkhanas* are situated on the side of the Bhiwandi Creek, in the villages of Kon, Pimplas, Vehele, Anjur and Bhiwandi, and the bricks are exported to Bombay and Poona. Generally, about 110 labourers are employed in all the *Karkhanas*, to manufacutre bricks, for about 8 months, but all these labourers are imported from Gujarat to the total exclusion of the local village *Kumbhars*, as the labourers from Gujarat are found hard-working and regular.

The *Kumbhars* used to manufacture country tiles but this trade is, now, completely extinct, owing to the import of Mangalore tiles, as, well-to-do people use the Mangalore tiles in the town and in the villages and the majority of the villagers use straw for thatching.

(viii) **Carpentry :**

Carpentry is one of the oldest occupations in India. Carpenters were taken to be the village servants, as in those old days, the villagers were in isolated conditions as communications were scanty and undeveloped and the individual village was thrown largely on its own resources to supply the needs of daily life. A carpenter was essentially required for preparing implements for agricultural purposes and keep them in a state of repair. He was also required to prepare carts and cart-wheels. Today also he is required mainly for these purposes in the villages and also for building the houses.

The manufacturing of carts and cart-wheels was a speciality of the Padgha carpenters during the Maratha period. But recently with the introduction of motor lorries the cart-making and wheel-making industry has suffered heavily. Still, the Padgha carpenters are keeping on their speciality as orders generally come to them, not only from the Bhiwandi Taluka itself, but also from the adjoining talukas and also from the Nasik District. The teak wood which is required

for preparing cart-wheels is obtained in abundance in the adjoining forests. The carpenters who mostly come from the *Sutar* community, earn about Re. 1 per working day. Besides, he is in a position to manufacture furniture and cabinets and other wood turning industry, on a small scale. It is true that he is not skilled like the urban carpenter but he is in a position to satisfy the local wants. Anyhow it can be safely said that he is in good demand and he can carry out his profession with earnings sufficient for his livelihood.

(ix) **Blacksmithy :**

Like carpentry, blacksmithy is one of the most important village industries. It is a basic industry, as without the implements prepared by blacksmiths, it will be very difficult to carry out other cottage industries. From the point of view of usefulness and importance to the cultivators, blacksmithy stands first amongst all the cottage industries, as agricultural progress depends upon the improvement of agricultural implements.

The *lohars* in the Taluka follow this profession and it is a hereditary profession. Along with the agricultural implements, he prepares domestic articles, such as *tavas* or frying pans, door chains, latches etc. But now owing to the importation of ready-made articles in the Taluka, these articles which are rather costly, are out of demand and now he has only to confine himself to agricultural implements. Thus, owing to the outside competition and bad financial conditions of the cultivators, upon whom the village smith is solely dependent for his earnings, the condition of the blacksmith is rather deplorable. Besides, owing to the gradual advent of the factory-made agricultural implements and because of the decline in bullock-cart transport and other rural trades for which he used to manufacture the implements, his position has become unsafe and his main function is now that of a repairer. Somehow he gets on an average 0-12-0 or 1-0-0 per day, on a working day, but he has to remain idle for a considerable number of days.

(x) **Tanning Industry :**

The Chambhars in the Taluka are carrying out this trade, as a subsidiary occupation. The Mahars are the flayers of the dead animals. But unfortunately they have got little idea of the importance of proper flaying and of the way in which hide should be preserved properly so as to give the best results. Again, in many villages the dead cattle are simply thrown away without flaying. That is why, there is dearth of leather and the Chambhars have to depend upon leather from Bombay.

The indigenous Chambhar has his crude ways of preparing *chappals* and he is unaware of several other things that can be prepared out of leather. Out of the hide of one animal he can prepare about 16 pairs of *chappals*. He has to pay Rs. 1-8 to the Mahars who carry the dead animals and do the flaying work ; Rs. 1-8 he has to spend for myrobalans for the use of colour ; 0-4-0 for lime and Rs. 1-8 for the skin of Ain tree. He requires 3 days' labour for tanning and he can prepare three pieces of *chappals* per day. Thus, on an average he generally gets 0-4-0 per day.

There is great scope for improving the leather industry, if the export of raw hides is stopped and arrangements are made for finishing the half-tanned leather, sufficient work can be found and it will be possible for the village chambhars to earn at least 0-8-0 per day or even more.

Besides these major cottage industries in the Taluka, there are other minor cottage industries, such as rope-making, mat-weaving, leaves-collecting etc. which are run on a very small scale by the Hill Tribes such as the Varlis and the Katkaris. These poor people are carrying on these industries simply because they have no other occupations to follow and as these industries entirely depend upon the forest production, it is convenient for the Hill Tribes to follow them, as they practically live in the jungles.

(*showing total number of pupils in different standards in all the schools of the Taluka*)

Schools	Schools upto standards	No. of schools	Standards								Total
			Infant	I	II	III	IV	V	VI	VII	
Municipal Boys' Schools	Infant to Standard IV	6	265	103	105	75	48	...	...	...	596
	„ „ VII	1	155	59	60	42	67	33	24	11	451
		7	420	162	165	117	115	33	24	11	1,047
Municipal Girls' Schools	„ „ IV	1	51	21	10	6	2	...	...	...	90
	„ „ V	1	72	41	29	30	13	16	...	...	201
	„ „ VII	1	33	24	21	13	7	1	...	3	102
		3	156	86	60	49	22	17	...	3	393
Municipal aided schools (Boys)	„ „ IV	4	219	61	45	19	14	...	...	...	358
Municipal aided schools (Girls)	„ „ III	2	81	5	2	3	...	...	...	...	91
District S. Board Boys' School	„ „ II	1	32	19	5	...	...	...	...	...	56
	„ „ III	19	332	115	86	67	...	...	...	...	600
	„ „ IV	26	500	184	170	103	85	...	...	...	1,042
	„ „ V	2	65	33	24	28	9	12	...	...	171
	„ „ VI	3	107	69	67	33	30	21	18	...	345
	„ „ VII	3	167	74	81	80	70	58	34	37	601
		54	1,203	494	433	311	194	91	52	37	2,815
District S. B. Girls' School	„ „ IV	1	28	12	19	14	1	...	...	...	74
Total		71	2,107	820	724	513	346	141	76	51	4,778
Percentage			44.1	17.2	15.2	10.7	7.3	2.8	1.6	1.1	100.0

APPENDIX II

लग्नाचीं गाणीं

(१)

मालण माती ग कुरवली
मालणीबायनी सरशी केली
आरव तिरव दंड माळ्यानी उभ सारिवल
त्यांत पेरिल मखमालीच रोप
पांचव्या दिशी माळीण मळ्यांत देवली
वर मालणी मळ्याचा झोपा
पाणी जावुं दे मखमाली रोपा
फुलतय झेंडू भरतय पाट्या
हातांत घेतल्या एवल्याच्या काट्या
घेवुनि गेली भिवंडी शराला
तिथ फुलांचा मालणीन आरव केला
तिथ फुलांचा न व्हय विकरा
तिथून आली भिनार शरा
तिथ मालणीनं घातला फुलांचा पसारा
फुलाच्या मालणीन हाकारा केला
नांदु परो ल्या वरमोल्या कानीं
बोलुं लागला राजा भाजाला
आपल्या घरीं बाळाचा एव
आपल्याला लागल फुलाच काम
माऱ्या लावल्याग सोपाल्या निसणी
हरण्या पेटीला लाविल्या चाव्या
काढिल त्यानं ग लौकर दामु
बांधिल्या त्यानं ग शेल्यापालवी
निघुनि गेला ग मालणीपाशीं
सांग मालणी फुलाचा मोलु
फुलांचा मोलु र नवलाख दामु

त्यानी दिलाग मालनी जवळी
फुला घेतली शेल्यापालवी
भोंतीं तिच्या रवल्या डवल्या
मग घातला तिच्या ग गळयांत हात
तोरला तिचा ग नवसार हार
फिरवला तिच्या ग दंडावर हातु
फाडली तिची तापट्याची चोळी
ओवता टिपता रातर झाली
निघून मालीन घराला आली
माली पुस ग मालनी पाशी
औरा रात ग कशाला झाली
भिनार गांवच्या आखुर भिदी
गाई गोऱ्यांच्या लागल्या झुंजी
पळता पळता तुटला माझा नवसार हार
ओवता टिपतां रातर झाली.

(२)

तवा तो माळी । रानांत गेला
तवा त्या माळ्यानी । जुपण्या काढिल्या
तवा त्या माळ्यानी । बाजारा गेला
तवा त्या माळ्यानी । फालु आणिला
तवा त्या माळ्यानी । बैलांना हाकारा केला
तवा त्या माळ्यानी । बैल जुंपल
तवा त्या माळ्यानी । दांडू वढिल
तवा त्या माळ्यानी । हळदी लाविल्या
तवा त्या माळ्यानी । बैल राठाला जुंपल
तवा त्या माळ्यानी । पाणीसा लोटिला
तवा त्या माळ्यानी । हळदी पाणिसा घातला
तवा तो हळदु । एक पात आली
तवा तो हळदु । दोन पात आली
तवा तो हळदु । तीन पात आली
तवा तो हळदु । चार पात आली

तवा ल्या माळयाने । हळदी खणिल्या
तवा ल्या माळयाने । बैलाला हाकार केला
तवा ल्या माळयाने । हळदी घरी आणिल्या
तवा ल्या माळयाने । भट्या रचिल्या
तवा ल्या माळयाने । गाईच्या गोमित्री शिजविल्या
तवा ल्या माळयाने । अगनीच्या मुखी चेतविल्या
तवा ल्या माळयाने । गंगेच्या पाण्यान भट्या विझविल्या
तवा ल्या माळयाने । सुरया किरणी वाळविल्या
तवा ल्या माळयाने । गोणिया भरल्या
तवा ल्या माळयाने । हाकारा केला बैलाला
तवा ल्या माळयाने । गोण्या बैलावर टाकल्या
तवा ल्या माळयाने । ल्या गोण्या नेला भिवंडी शहराला
तवा ल्या माळयाने । तिथ घातला हळदी पसारा
आवाज गेला । – – – च्या* कानीं
– – – * गेला । भिवंडी शहराला
ल्याच्या घरीं । लेकाचा एव
आवाज गेला । – – – च्या† कानीं
सोडा सोडा – – – बाई† । पालवाच्या गांठीं
हळद घ्या । आयानो बायानो
आमच्या घरीं । आहे लेकाचा येव
सोन्याचा वरवंटा । रुप्याचा पाटा
हळद वाटु । गेली देवुकन्या
हळद फोडिली । पांचजणी सवासणी
आणिल शालुनारल । घेतिल्या तांब्याच्या वाटा
ल्यांत हळद कालविली । बालाच्या मुर्हुती चढविली.

(३)

आयमन मयमन दोघ व्याही
मंडपी घातल्या शेजाबाजा
वर बसला नवरी आजा
दोघ व्याही मिलत झाल

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* वरबापाचें नांव. † वरमाईचें नांव.

मनीं विचार करुं लागल
कोण्या आळीं जावा
जावा जोशियाच्या आळीं
मंग दुरुनि देखिला जोशीयानी
घातला बसु लागला पुसु
काय आहेरे कामकाज
आमां घरीं वाढियला बाळु
आम्हाला लागल जोशियाचे काम
तवा त्या जोशियानं काय केला
जोशी वाची नखी बोटी
त्याचा जोशिक न ये मना
कुणें आळीं जावा
चालल बामणाच्या आळीं
कुन्ची बरामनाची घर
दारीं तुळशी बिरंदावन
दारीं धोतर वाळती
दुरुनि देखिला बामणानी
इकर धावला बामणानीं
काय आहे कामकाज
आम्हा लागल बरामना कामु
आमच्या घरीं वाढल बाळु
सोयऱ्या घरीं वाढली कन्या
हाथरलं काळ ग कांबळ
वर सोडला पोथ्याचा भारू
वाचीत वाचीत शेवट गेला
हळदी काढली आरवतीग
लगन काढल माशा बीज
करणी काढली माशा तीज.

(४)

वाजसी काल्या मुरदंगा । तुझा नाद गेला आगरा
आगरा गिरसली भाता । ती भाता विकती पन्नासा
तूं बाला कुठंर जाशी । मी जाईन सासुरवारीला

सासुरवारीच्या ल्या मेहुण्या कोण होती
ल्या माझ्या मेहुण्या होती
बाळाच्या पाहिल्या नावराशी
हा बामण मोठा जोशी
ल्यानी पाहिल्या बाळाच्या नावराशी
त्यानी लगनाच्या मांडिल्या घटका
त्यानी बाळाच्या मारिल्या रेशमाच्या गांठी.

(५)

आंबु पुस जांबुलाला ।
चल उंबराला मूळ
उंबराचा बी म्या पेरिला होता ।
तेहतीस कोटी देवानी देखिला होता ।
येरे उंबरा झारोझारीं । तुझ्या खांद्या गेल्या इस्तारीं
एकु गेली आकाशीला ।
एकु गेली पाताळीला
एकु आली रामराज मांडवा ।
गाई बहुलीचा शेण गंगेचा उदक
धुळीचा सारवण मारगाला
कणकाची शोभा उंबराला ।

(६)

मंडपाच्या दारीं । मांडव थापन होतो
तेलिया घरच्या तेलया । मांडव थापन होतो
वाणिया घरच्या खारकानी । मांडव थापन होतो
वाणिया घरच्या नारळानी । मांडव थापन होतो
बोहरिया घरच्या कुंकवानी । मांडव थापन होतो
बोहरिया घरच्या नाडियानी । मांडव थापन होतो
ल्या घरच्या वाहिना । तुझ्यावर येती का जाती
तिलाचा तेल । आंबाडी काढा
उंबरठ्या तेलवण पाडा

ह्या घरच्या निवदमेढी । तुझ्यावरी भारु कशियाच्या
माझ्यावरी भारु नारलाचा
नारलानी वेढियेली । पोफळानी शिवयेली
पडत्याला तिलाच्या । नवऱ्याच्या माथां
केसुल भिजले केसुल तिंबले
तेलानी मोहीले
यारे आंब्या पळस आंब्या
तुझी पळस पाना
रुप्यानी बांधावी तोंडा
त्या सोन्याचा कळस केला
* – – – – व्याही केला
बैला भरिला सोनिया
ते सोन सोनाराच्या घरी गेला
त्याचा डागिना घडिला
नवराई बाईला.

(७)

येरे भौरा जारे भौरा सरक दौरा
सरगीच्या सांगा तुमी शापुराज पितरा
पाच दीन आवा तुमी नाताच्या येवाला
घातीला बसु लागल पुसु
कोणाच्या घरीं होत येव ग
तुम्ही बाला सांडिली होती
त्या हलदीनं रंगविली
तुम्ही बावी बांधल्या होत्या
त्या उदका भरल्या वो
तुम्ही आंब लाविल होत
ते इसतरी गेल हो
तुम्ही तळीं बांधली होती
ते कमलानी दाटली हो
तुम्ही चाप लाविल होत
चाप फुलानी गौरल वो

* व्याह्याचें नांव.

तुम्ही वाऱ्या लाविल्या होत्या
त्या याना फुला आल्या वो
खर्चील त्या खर्चा येचल त्या येचा
या नाताऱ्या मुजवरी बांधा वो
पुना आमचा येणं जाणं नाहीं व्हयल गो
कतीक मिला आह यासजण गौतुवो.

(८)

लाखाच्या आल्या येला
या कुर्टशा शिजला हो
नहीना आटतला अरलीचा कोनुवो
आटला ह्या वरीलाचा पुन्य गो ।
शिजल्याचा भिजल्याचा नहि करावा इध्वंस
आम्हा घरीं तान्ही बाळ रंगविली
भरभर रे जौरया असा काय केला
बापुराज सारिका माणिक नेला
– – – – जौरयाच्या हातीं सेलवाची काठी
माणिकु नेला देवानी जलमासाठीं.

(९)

चिरी बोले चिरावले निघुनी सरगीं जावा
सरगीचें यावा तुम्ही रामराज पितरा
रामराज पितरा तुम्ही बाला देखिली होती
त्यांचे सुकीर सोहाळ हाये ती
तुम्ही बावी बांधिल्या होत्या
त्या उदकापरांनी भरल्या
तुम्ही आंब लाविले होत
त्या मोहोर आलेत्या
मोरा आंब बांधा तोरणा
त्या बालकाकारणा

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* वडिलांचें नांव.

(१०)

वईचा सुरुंग । कुदळया खणिल्या
बारिक शिंपीला । दहि दुधांत रांधिला
वांसुला गेला । देवाच्या देवसभेला
सभेच्या बसणारा । भाउजी हे राजा
तुमच्या डोईचे मुंडास । सोनियाचा
भाऊराजांच्या घराला । खणोखणी पैवार
चौकोनी डोलाराया ग । मोतियाचा.

(११)

पांच पानाचा इडा
घेतला नारायण तळिये
नारायण देव गेला गांवदेव तळिये
गांवदेवाची भारज निमान गोरिये
जात्या वैरण घालाया दांड्या डोलिये
तुमचे हातींचा मोहुतुर हाये
मोहुतरु असुनि शिवारथ जाये ।

(१२)

नागियेला पान । सुरयेला कांड
तिळाच्या तेला । पड त्या नवऱ्याच्या माथां
या चौघी सवासणी । जुळयेले हात
पान घे सयाहो । पान घे आया हो
जलम आहाण ग भागिरथी
उभी होत्या दारामधीं ।
कडेवरी सवतीचे पोर
त्याच्या डोई आंगरा टोपरा
पायामधीं बुट चांबऱ्याचा
मातीमधीं चिनी माती । तिचा घडवला गणपती
दगडामधीं काळा दगड । त्याचा घडवला मारवती
मातीमधीं काळी माती । तिची घडवली रुखमीण.

(१३)

आला ग पाला सुर्य उगवला
सुर्याचा तेज बाळायानें रांधियेला
काय रांधियेला काय घातियेला
जाईजुईचा ग पाला
वास त्याचा देवाच्या देवसभेला
माझे सभेच्या बसणारा
डोयिचा मुंडास बालाच्या मोतियाचा
सोन्याचा सोनपाटा हिरवा पहुळयांचा वरवंटा
वाटींत भरवटा देवकन्या
वटीवटी ग वटाणा गुजुं वाटींत तेला
आज वटाणा गांवाच्या गांवदेवीला
त्याचा उष्टा नवऱ्याला
तिळाच्या तेलांत हळद मोदियेली
कोणी योगी करवली घेउन आली
करवली बोले मी काय ग आवशी
क्रिष्णदेव गवशी न वटण्यासाठी.

(१४)

डोंगरावरुनि पर्वत कोसळला
कोण्या माऊलीचा पुत वल्हे उतारला
वल्हे उतरुनि शेला आडवा केला
उघड मेहुण्या तोंडावरला शेला
पाहुं दे आम्हाला बाई सारखा जोडा
जोडा पाहुनि मंडपी उभा केला
मंडपी झाल्या लगनाच्या वेळा

(१५)

आगर म्होरी डोंगर म्होरी
बाळा हीच कायर तुझी सासुरवारी
सभा भरली लोकांची । तुझे रे सासऱ्यांची

सभा भरली पोऱ्यांची । तुझे रे मेहुण्यांची
सभा भरली पोरींची । तुझे रे मेहुणींची
सभा भरली आवांची । तुझे रे बाळा सासवांची.

(१६)

पंढरीच्यां माळावरी । सारी रात्र करमिली
सारी रात्र करमली । रुखमिणी त्यानं परतेली
रुखमिणी त्यानं परतेली । डावी करंगली धरली
डावी करंगली धरली । सभेमध्यें उभी केली
सभेमध्यें उभी केली । सभा बालाला मानवली.

(१७)

सात समिंदर उमलिले । गवसला नवसर हार
अशी बाई दैवाची । तिला गवसला सखा सासरा
सासरा नव्ह पुन्याचा बाप । साद घाली बहुबाई
अशी बाई दैवाची । तिला गवसली सखी सासु
सासु नव्ह पुन्याचीं आई । साद घाली बहुबाई
अशी बाई दैवाची । तिला गवसला सखा दीर
दीर नव्ह पुन्याचा भाऊ । साद घाली बहुबाई
अशी बाई दैवाची । तिला गवसली सखी नणंद
नणंद नव्ह पुन्याची बहीण । साद घाली बहुबाई.

(१८)

आरवला वेल । मांडवाला गेला
फुला कंडुले । चांदाच्या चांगुणा
अवचित मांडवा ये
एकली येवु नकोग । बाला संग भरतार घे
संग भरतार घे । अवचित मांडवा ये
अवचित मांडवा ये । बाला डोयीवर पदर घे
बाला डोयीवर पदर घे । बाला काजळ कुकू ले
एकली येवु नकोग । संग भरतार घे.

(१९)

सोपारीसारिका माझी ग भारजा
चलग भारजा आपुन दुरल्या देशा
दुरुल्या देशा नेवुनि मला इगावशी
नईग भारजा तुला इगवत
डोईच्या मुंडासांत घालुनि वागवीन.

(२०)

तळ्यापाळी लाविल्या केळणी
त्या केळणी शिप रे बापा।
तूं लेकी कुठ ग जाशी
मी जाईन सासरीला।
मला लोभ सासुसासऱ्यांचा
तुला लोभ माझ्या देजाचा.

APPENDIX III

FOLK SONGS

(Translation)

I

The gardener's wife tilled the soil,
The gardener's wife did it skilfully,
She then tied the posts crosswise.
The gardener made furrows in the soil,
And a velvet-seedling was sown in it,
On the fifth day the gardener's wife
Stepped in the garden,
She dug a canal in the soil,
So the water should reach to the velvet seedling.
The Zendu plant began to blosom,
Baskets were loaded with the flowers.
The gardener's wife took the baskets,
And the stick of Eliva in her hand,
And came to the town of Bhiwandi.
Then she started hawking her flowers,
But no one bought her flowers,
So came she to Bhinar town.
She spread her flowers there,
And called out for buyers
The call was heard by the father of —
He said to his wife
" We are celebrating our son's wedding
We shall require flowers for it ".
He brought and put the stair inside the house,
And he unlocked the casket of deer-skin,
He took out coins,
And tied them in the end of the upper-cloth,
He went near the gardener's wife and said,
" Tell me, oh gardener's wife, the price of your flowers ".
" My flowers are worth nine lakhs " said she.
He paid the price and tied the flowers in the upper cloth.

* Name of the bridegroom.

Around her assembled some boisterous persons,
And one of them threw his arm round her neck,
He broke her necklace of nine strings,
His fingers moved on her arm,
Her new breast-cloth he tore.
It was night till the beads were strung,
And the gardener's wife returned home.
The gardener asked his wife
"Why are you so late at night?"
"The lanes of Bhinar town are narrow" (said she)
"And the bulls and cows started fighting,
I ran and so broke my necklace of nine strings,
While stringing it, night came!"

II

Then the gardener went to the woods,
He took out the branches,
Then he went to the Bazar,
And bought the plough.
He then called the bullocks,
The bullocks were yoked,
Furrows were made.
Turmeric was sown.
Then the bullocks were yoked to the water-wheel,
Water was drawn,
The turmeric was given water,
One leaflet was seen on the turmeric,
Two leaves were seen on the turmeric,
Three leaves were seen on the turmeric,
Four leaves were seen on the turmeric,
Then the gardener dug out the turmeric,
He called the bullocks
He loaded bagfuls (of turmeric) on them
Brought the turmeric home
He cooked in the cow's urine,
Arranged fire
And purified in it.

The fire was put out with the water of Ganga.
He took out the turmeric,
It was dried in the rays of the sun,
Bags were filled,
And bullocks were called,
The bags were loaded on them,
And taken to Bhiwandi town,
The turmeric was hawked,
The sound reached the ears of ———*
*——— went to Bhiwandi town,
At his house his son's wedding was arranged.
The sound reached the ears of ———
" Untie oh †———bai ! the knots of the ends of upper cloth
In our house our son's wedding is to take place ".
Golden is the grinding stone,
Silver is the slab,
The heavenly nymph pounds turmeric,
Turmeric was broken by five Suvasanis,
Cocoanuts were brought and copper bowls,
In them turmeric was put,
And applied to the bridegroom.

III

The bride's father and the bride-groom's father
(Ayaman and Mayman) met in the pandal
Where cots were kept.
On one of it sat the birde's grand-father
On the other one bride's father and bridegroom's father
Were thinking what way to go
(And they decided) to go to the place of the Joshi
The Joshi saw them from a distance.
He gave them seats and asked
" What is it that you want to be done ? "
(Says the father of the bridegroom)
" I have a grown-up son in my house

* The name of the bridegroom's father.
† Name of the brrdegroom's mother.

So I want to consult the Joshi ".
The Joshi counted on his fingers and nails
But his forecast was not approved by them.
" Where to go now ? " thought both of them,
And went to the Brahmin's place.
It was the Brahmin's house .
In front of which there was the Tulsi plant,
And dhotis were drying in the sun.
The Brahmin saw them from a distance.
He came to them and asked
" What is it that you want to be done ? "
(Says the bridegroom's father)
" We want to consult you, oh Brahmin ! "
I have a grown-up son in my house
The relative has a grown-up daughter ".
The Brahmin spread black blanket on the ground
And a heap of Scriptures he laid on it
He started reading them one and all
And gave his advice that the halad ceremony should
take on the new-moon day
Marriage ceremony on the second day of the new-moon
And karani ceremony on the third day

IV

As you are being beaten Oh ! black drum
Your sound reaches the field.
Paddy is ready in the fields
It is sold for fifty Rupees
" Where are you going, my son ? "
" I am going to my father-in-law's place "
" Who are the girls in your father-in-law's house ? "
" Those are my sisters-in-law ".
The horoscope of the boy was examined,
The Brahmin is a great foreteller.
He fixed the time of marriage
He tied the silken knot of the boy.

V

The mango tree says to the Jambhool tree
"Let us go and invite the Umbar tree.
I had sown the seed of the Umbar
Thirty-three crores gods had witnessed it
Let every tree be an Umbar tree, oh Umbar tree !
Your branches are spread everywhere
One has gone to the sky
The other has gone to the under-world
The third has come to the Pandal of the ancestor Ramraj
The dung of a good cow
The water of the Ganga
And the mud
Have cleansed the road
The Umbar now shines like gold.

VI

When the marriage pandal is being erected at the
entrance of the house
With the oil from Teli the pandal is erected
With the dates from the Bania the pandal is erected
With the cocoanuts of the Bania the pandal is erected
With the kunkum from the Bhori the pandal is erected
With the cords from the Bhori the pandal is erected
Oh threshold of the house, people tread on you,
while coming and going
The oil of sesamum and the thorn of hemp
With them put oil on the threshold
On the auspicious stake !
"What burden do you bear ?"
"I bear the burden of the cocoanuts".
"I am surrounded by the cocoanuts
And covered with raw betel-nuts".
Oh oil of sesamum fall on the head of the bridegroom
The hair has become wet ;
The hair is rubbed ;
"Come oh mango ! Come oh mango"

And Palas tree
Your leaves oh Palas tree should be tied with silver
near the edge
On it should be made a top of gold
*——— Is the bridegroom's father.
The bullock is loaded with gold
And gold is taken to the goldsmith
And ornaments are made of it for the bride.

VII

Come here oh bee, traveller of heaven,
Now go to heaven,
And tell our departed ancestor Shapuraj
"For five days you must come to the wedding of
your grandson".
The seat was offered and the ancestors asked
"In whose house is the wedding to be celebrated?"
"The children whom you have left (oh ancestor)
"Are smeared with turmeric.
"The wells which you had dug are now filled with water.
"The mango trees which you had planted have gone
high up in the sky.
"The tanks that you built
Are thickly covered with lotuses
The Champa trees that you had planted
Are adorned with flowers.
The gardens that you made
Are full of flowers and leaves."
"You may spend whatever you like.
You may save whatever you like
But please come for the marriage of your grandson".
"We shall not come again"
"Let all kith and kin invited for the wedding be present".

VIII

The auspicious time has come
Heaps of food are cooked.

* Name of the bridegroom's father.

The corner of the inner room
Has not yet become empty.
But the store of the merit of the forefathers has waned.
Let not which is cooked and soaked be spoiled.
In our house young children are smeared (with turmeric)
Oh Jouriya why in such a haste
Did you take away a ruby like Bapuraj
In the hands of Jouriya there is the stick of Sheleva
The ruby was taken by the gods for rebirth.

IX

So says a bird ——
"Oh small bird go to heaven,
(And speak thus to Ramraj, the ancestor)
"Oh Ramraj, the ancestor, denizen of heaven
You must come now,
The children you had seen,
A grand function is celebrated for their sake.
The wells you had dug
Are now filled with water.
The mango trees that you had planted
Are now in blossoms.
"Break the branches of the mango tree
And make an entrance decoration with it
For the marriage of the boy".

X

The ground was dug for the fencing with axe,
The mud was finely sifted,
And mixed with milk and curds
The smell of it reached the assembly of gods
"Oh Bhauji, the member of the assembly,
The turban on your head is of gold".
The house of Bhauraj the ancestor
Has plenty of rooms.
The house is quadrangular
And all made of pearls.

XI

A 'vida' was made of five leaves
Narayan took it on the palm of his hand
And went to the temple of the village-god
The wife of the village-god is excessively fair
While she was putting corn in the grinding wheel
The peg of the grinding wheel shook while she did so
(Said Narayan) the wedding is celebrated in your name
There is wedding and plenty of food also.

XII

The leaves of Nagawel are here
When the sun is about to rise
Pound the seeds (of sesamum),
Oh oil fall on the head of the bridegroom.
Come oh ! four Suvasanis, with joined hands !
Take the pan oh friends
Take the pan oh mothers,
Let the woman's married life be eternal like Bhagirathi
She was standing near the door
And was carrying the co-wife's child
He wore a cap and other clothes
He wore a leather-shoe also.
The china-clay is the best of clay,
Ganpati was made of it.
Black stone is the best of stones
Maruti was made of it.
Black soil is the best soil
With it Rukmini was made

XIII

The foliage has come,
The sun is risen,
The lustre of the sun is snatched by the boy
What was being pounded ?
What was applied ?
It was the leaves of the jasmin
The smell of the leaves reached the assembly of the gods

My boy who sits in the assembly
Wears the turban of gold
The grinding slab is made of gold
Of green corals the grinding stone is made.
The heavenly nymphs fill the bowl
With the leaves that are pounded.
In a small dish oil is kept
Today the pounded matter shall be taken to the village-deity.

XIV

(So says the bride's sister)
A boulder has tumbled down the hill.
Which woman's son is this that rowed across (the river) ?
He reached the bank and covered his face with the upper cloth.
"Oh brother-in-law remove the cloth
Let us see that you are a good match to our sister".
The match was approved of and the bridegroom was
taken to the pandal
It was then time for the marriage in the pandal.

XV

There is a grove of trees in the front
And also a hill
It is the place of your father-in-law, my boy
There is a gathering of men
They are your fathers-in-law
There is a gathering of boys
They are your brothers-in-law
There is a gathering of girls
They are your sisters-in-law
There is a gathering of women
They are your mothers-in-law.

XVI

On the plains of Pandhari
A search was made for the whole night.
A search was made for the whole night,

And he made Rukmini retrace her steps.
He made Rukmini retrace her steps.
And he caught the little finger of the left hand
And made her stand in the gathering.
He made her stand in the gathering.
The gathering brought luck to the bridegroom our son !
When the Seven Oceans were crossed
The necklace of nine strings was found.
My daughter is so fortunate
She has got a father-in-law
Who is not at all like a father-in-law
But a blessed father,
And calls her Bahubai.
My daughter is so fortunate
She has got a mother-in-law
But she is not like a mother-in-law
She is her blessed mother.
She calls her Bahubai.
My daughter is so fortunate
She has got a brother-in-law
But he is not like her brother-in-law
He is her blessed brother
And calls her Bahubai.
My daughter is so fortunate
She has got a sister-in-law
But she is not at all like a sister-in-law
She is like a blessed sister
And calls her Bahurani!

XVIII

The creeper has grown
It has reached the pandal
The flowers of pumpkin
Display the splendour of the moon.
Oh ! girl, do not come alone
Bring your husband with you
Bring your husband with you, oh girl !

And then enter the pandal
Enter the pandal, oh girl !
But cover your head with the end of your saree
Cover your head, oh girl !
And put the Kunkum and collyrium
Do not come alone oh girl !
Bring your husband with you.

XIX

" My wife is beautiful like a (ripe) betel-nut
" Come oh wife ! we shall go to the far-off place ".
" You shall take me to a far-off place (my husband !)
" And then you shall abuse me ".
" Nay my wife, I shall not abuse you
I shall always keep you in the turban of my head ! "

XX

" On the bank of the tank
Plantain trees are planted
Oh father give water to them ".
" My daughter where are you going ? "
" I am going to my father-in-law's house
I am fond of my parents-in-law
You are fond of the bride's price ".

CHAPTER IX

THE RURAL DEVELOPMENT SCHEME

We have discussed so far, some important aspects of rural life, both social and economic, and it can be seen that poverty is the central fact of the rural life—poverty economic, intellectual and physical. Without tackling this pivotal problem, all efforts to improve the lot of the agriculturists are ineffective. Educational reforms and public health propaganda are of little avail, so long as these conditions continue. Indeed, the advance must be all-round. Poverty in all its phases must be simultaneously attacked. But as physical and intellectual poverty cannot be effectively tackled, without a substantial reduction in the economic poverty, the main effort at the first stages must be economic.

To begin with, in order to improve the material conditions of the farmer he must be relieved from the burden of his indebtedness. The measures to emancipate him from the heavy load of indebtedness under which he is groaning, are therefore probably the only foundation on which a scheme for rural development can be built.

The problem before us is how to relieve the farmers from their debts. We have seen that the Co-operative Movement is the most essential factor for the emancipation of the farmer from the burden of indebtedness and there is no other alternative solution for it, under the existing circumstances. It is the only foundation on which a scheme for Rural Development can be built. The belief is widely entertained that the Co-operative Movement has failed to achieve the results originally expected and actually attained in Europe. It is thought that whatever success may have attended the efforts of co-operators elsewhere, the genius of the people of India and the conditions in the midst of which they live, are hostile and uncongenial to the healthy growth of the movement here. If this view is taken to be correct,

there will be no other alternative solution to the problem of the poverty and the backwardness of the Indian masses. Co-operation enables the poor and resourceless classes in the community to secure their own material and moral welfare by collective efforts and replaces their futile individual struggle for existence. And it must be given a full, all-round and vigorous trial.

The idea of the mutual service "each for all and all for each" is the very essence of the faith of Co-operation. It is based not merely on the principle of association but of equitable association, all the members being on a footing of legal equality. It has got the aim of concentrated action, joint effort and harmonious working with the avowed object of ameliorating the social and economic conditions.

The principle of Co-operative Movement finds its expression in two distinct ways. The first is that of the Credit Societies in which several persons join together and furnish collective security, with a view to obtain money at a lower rate of interest. The second form of co-operative efforts is that of Non-credit Societies. Such a society has as its object collective production, sale, purchase, distribution or any other item which the members may agree to work upon strictly on a cash basis without allowing any of the members any credit.

The ideal of co-operation is to educate the members of the Co-operative Societies in the value and use of money and to dispense controlled credit to them. But it is difficult to achieve it when credit is divorced from supply and sale. It will be achieved only when the Multi-purpose Co-operative Societies are started. The Co-operative Movement must cater for all the wants of the members. For whatever purpose, a society is started, it must serve as a point of contact and gradually other purposes must be developed so that ultimately the whole man is dealt with. That should be the goal set before the Movement.

The idea of the Multi-purpose Societies is by no means new. It is indeed as old as Raiffeisen Own Societies, which aimed at promoting material well-being and also preparing

the ground for moral and religious activity. The Bank directly or indirectly should be the centre of the village life.

The Multi-purpose Societies make a great appeal to the loyalty of the villages by endeavouring not only to supply and give credit but to cater for all their wants and bring them into close touch with the Society not only for one or two occasions, in a year, for distribution of loans but throughout the year for some purpose or the other.

The Multi-purpose Societies aim at the provision of short-term finance required by its members for their normal cultivation needs. They are also intended to provide to a limited extent, finance required by the members for such agricultural needs as the purchase of bullocks, carts and other implements. But for long-term credit, for redemption of the old debts and also for improvements of the lands, the existence of the Land Mortgage Bank is absolutely necessary. Almost all the progressive countries of the world have got a comprehensive system of rural credit, both for current and capital expenditure on land. About 80 per cent of the population of India is dependent on land. In every part of India the peasant-cultivator is predominant. The average holding is as small as 5-10 acres and a large number of cultivators are dependent on the produce of less than an acre. The output is very low and high farming as carried out in Denmark and in other parts of Europe is unknown. The greatest hope of agricultural India lies in the adoption of some form of intensive cultivation which will result in maximum agricultural production. The problem of land improvement is thus closely connected with the problem of long-term credit facilities and all schemes of agricultural improvement can be resorted to, provided long-term credit facilities are available on fair and reasonable terms, as abroad. Thus, the only agency that can mobilize this form of credit and adequately provide long-term capital, at a low rate of interest is now recognised to be the Land Mortgage Bank.

So, the general scheme for the debt redemption should be that Debt Conciliation Boards should be started and they

should go into the history of the debts and should scale down the outstanding liabilities to, within the paying capacity of the debtors. But prior to the scaling down on the basis of the paying capacity, the claims should be subject to a reduction on account of the accumulated charges of interest. There should be further reduction, if necessary, in accordance with the law of *Damduppat.* In case of debtors whose assets are so small that even when their debts are scaled down to the lowest possible limit, the debtor would find it difficult to repay, a special provision should be made for the Rural Insolvency Act, allowing the insolvent-debtor a minimum subsistence of holding. A special provision should also be made for the voluntary conciliation of debts of agricultural debtors, who bear heavy and large debts. Having scaled down the debts of a cultivator of an average status to his repaying capacity, the lands of the debtors should be transferred to the Land Mortgage Bank, which in its turn should repay the creditors in cash. The creditors will be most willing to accept even the scaled down debts taking into consideration that they are getting hard cash in one instalment. The amount of the instalment should be carefully arrived at, after making allowance for the requirements of the debtors, for his normal agricultural needs and for raising short-term credit from the Multi-purpose Co-operative Societies, which stands outside the purview of the Land Mortgage Banks, for the cultivation expenses, for the next year's crops. The instalments should be such as it will be possible for the debtor to repay within his life time and as such they should be about 20-25. The Land Mortgage Banks should not deal with sums less than Rs. 500, which should come under the purview of the Multi-purpose Co-operative Societies as it will be difficult for the Land Mortgage Banks to deal with petty sums, taking into consideration the long and tedious process and also there will be a clash between the activities of the Land Mortgage Banks and the Co-operative Societies.

But it must be remembered that the cheap credit provided is not a panacea for all the difficulties of the farmers. It must be realised that unless all activities bearing on rural

welfare are organised on a co-operative basis, there is no reasonable likelihood of improving conditions of rural life. Credit, if it is not buttressed by thrift, better living and efficient marketing, can make no headway.

The relief from indebtedness may not be desirable unless it is simultaneously accompanied by other steps. The object of this relief is to put the agriculturist on his legs, to start him for a new career, to enable him to do work more cheerfully and to create an interest in life in him. But these things require other efforts, in the absence of which the agriculturists may again relapse into a state of indebtedness. Co-operative marketing and revival of cottage industries should go hand in hand, with the measures of relief of indebtedness.

The marketing of agricultural production is one of the vital problems of rural economy, but has hitherto received scant attention. Agricultural production is carried on, in varying conditions by people who have small plots and work on small scale. They are busy in production of one crop and have neither the time nor the ability for studying the market or marketing their produce at an advantage. At present, the producer does not obtain a good value for his crops. More often, the cultivator accepts an advance from the village middleman to whom he is thereby bound to sell his crops at a great disadvantage, immediately after the harvest, when the prices are lowest. It is therefore necessary to organize Sale Societies. These Societies will educate the cultivator in the production and preparation of his produce for the market. Thus, despite setbacks, probably the greatest hope for the agriculturists lies in the joint-sale of their produce. In theory, a multitude of advantages are claimed for it. Improved marketability of goods, possibilities of developing markets, stabilizing of production, controlling the flow of supplies, increasing bargaining power of the growers, reduced cost and more efficient service, ability to finance the marketing and producing operations of the members. So, if the Co-operative Movement is to help the farmer in marketing his produce by giving him advances until a fairer price for his produce is

available, the movement could really confer a great boon upon the farmers. It will be also obvious that a large number of the agriculturists who are in the grip of such type of *Sowcars* as the *palemode Sowcars*, will be relieved.

It must be remembered that in a country of small holdings like India, the most suitable form of organization for the purpose of marketing is the co-operative form. The State cannot itself organise and conduct marketing operations, but it may provide facilities. So, it is necessary that the Co-operative Movement should take initiative in the matter.

Generally, the peasant is busy for about 170 days in a year and for the rest of the period, he remains unemployed. He is required to seek employment in carting and in such other sundry works. But in these days, the bullock-cart is ousted by the quick transport agencies and thus unemployment has become a serious problem in the villages. Under these circumstances, the development of agriculture urgently requires the introduction of cottage industries and dovetailing of arable and animal husbandries into one mixed farming system, which will supplement the incomes of the agriculturists. It is admitted on all hands that even with the widest possible scope for large scale industrialization, there is a scope also for the cottage industries. We have discussed in details in the last chapter the possibilities of reviving some cottage industries. Mixed farming as generally understood is the combination of any one or more or all the following with crop production (i) dairying, (ii) raising of live-stock cattle or sheep and goats, (iii) poultry farming and (iv) bee-keeping we come across different combinations of these which show that farmers are not altogether unaware of the system. But unluckily they follow it as a tradition handed down by their ancestors which results in continuity of sentiments and in superstition, rather than, in understanding and assessing its benefits. Consequently, they are not quick enough to foresee events and adapt themselves accordingly.

In conclusion, it can be said that the primary condition of a successful Rural Development Movement is to create a

spirit of self-help among the rural population itself. No permanent improvement will be possible without the creation of this spirit. We are apt to concentrate on one aspect or the other of the problem and cultivate a habit of thought which disables us from taking a broad and comprehensive view of the problem. The correct solution of the difficulties of the rural population is impossible without such a comprehensive view. The whole life of a villager is one complex inter-related fact and it will not be improved without an improvement in the whole of it. The central fact of rural life is the villager himself. Our first aim has therefore to be to instil in him the right spirit, the habit and ambition to live a better life and an assurance that such a better life is his birth-right. This will be available only if he is free from debts. Once he is freed from the load of debt, he would begin to have a wider outlook on life and will take a keener and more healthy interest in everything that concerns his life. For that we are faced with the problems which are both desperate and baffling. But the remedies shall have to be heroic and courageous on the one hand and comprehensive and thoroughgoing on the other. In the scheme of his emancipation, the most essential factor is the Co-operative Movement. For the liquidation of the debts, for financing of the future needs, for rescuing from wasteful habits and for eliminating the large class of people who lives on his earnings, the introduction of the co-operative principles in all parts of his life is the *sine qua non*. There is no other single scheme which affords so many opportunities for ameliorating the lot of the Indian peasant and, "If Co-operation fails, there fails the best hope of rural India."

APPENDIX A

A NOTE ON DEBT REDEMPTION

The total amount of debt of all the 760 families in the three Economic groups, as can be seen from table No. 1 of Chapter V, is Rs. 3,08,115-8. Table No. 1 on page 270 gives the total number of families in the three Economic groups, according to their assets and also according to the frequency of their debts.

From the table it can be seen that there are in all 180 families, 54 in the A group, 118 in B and 8 in C, who have debts of more than Rs. 500 and as such they can come under the purview of the Land Mortgage Bank. But out of these, 31 families, 27 from the B group and 4 from C are to be excluded as they are landless families. Thus, the total number of families that are likely to be helped by the Land Mortgage Bank is 149, out of which in the A group there are 54, in B 91, and in C 4.

Generally, the Land Mortgage Bank offers half the value of the lands. The average value per acre in the Taluka is about Rs. 200 and thus the Land Mortgage Bank can easily offer Rs. 100 per acre. According to this criterion, 73 families—37 from the A group and 36 from B can be easily relieved from the debts with the help of the Land Mortgage Bank as the value of their assets is equal to or more than twice the debt that they have. But the remaining 76 families—17 from the A group, 55 from B and 4 from C—cannot be easily redeemed from their debts, unless their debts are scaled down. It is therefore necessary to go into the history of their debts and to see how far the Land Mortgage Bank can be useful to them. Tables Nos. 2, 3 and 4 on pages 271-282 give in details, the history of the debts of these 76 families and the amount of paddy that is required for their annual consumption and the amount of paddy left with them for marketing.

From Table No. 2 on pages 271-273 it can be seen that out of the 17 families of the A group the first five possess lands between 20-30 acres. Family No. 1 can be easily redeemed, from the debts as the total assets are 26 acres and 6 gunthas and the total debt is Rs. 2,350. Besides, 10 acres are mortgaged with a local Sowcar for Rs. 1,500 which are not included in the given assets. The family No. 2 has a total debt of Rs. 2,500 and the assets are 22 acres. Besides 9 acres are mortgaged, so obviously this family can also be redeemed. Family No. 3 has a total debt of Rs. 2,903 and has got assets of 22 acres.

Besides, 8 acres are mortgaged for the sum of Rs. 1,900 which is included in the total debts, so this family also can be redeemed. Family No. 4 has got a debt of Rs. 4,297 and the assets are 25 acres. Besides 13 acres are mortgaged for Rs. 3,000 so this family also can be redeemed. The family No. 5 has a debt of Rs. 4,356 and it has got assets of 26 acres. So this family cannot be redeemed unless the debts are scaled down. Out of the total debt, Rs. 3,000 are standing for 18 years.

Families Nos. 6-10 have got assets of 10-20 acres and it can be seen from the table that all these families can be easily redeemed.

Families Nos. 11-17 have assets between 5-10 acres. It can be seen from the table that the families No. 14, 15, 16 and 17 can be easily redeemed while families Nos. 11, 12 and 13 may be redeemed after scaling down the present debts.

In the B group, out of these 55 families, 3 have got assets between 10-20 acres. Family No. 1 has a debt of Rs. 1,867 and has an asset of 15 acres. Besides, $2\frac{1}{2}$ acres are mortgaged with the Sowcar and therefore this family may be redeemed as the value of $17\frac{1}{2}$ acres will be about Rs. 3,734. Family No. 3 can be redeemed as it has got the debt of Rs. 2,340 and has got assets of 15 acres. Besides, 16 acres are mortgaged with the local Sowcars for the sum of Rs. 1,445. But the family No. 2 has got the debt of Rs. 1,690 and has got assets of 11 acres and 12 gunthas. Thus it cannot be easily relieved unless a substantial reduction is made in the debt of Rs. 1,000 which was borrowed some ten years back.

There are 11 families having assets between 5-10 acres, out of which 8 families, that is, families Nos. 4-11 have debts between Rs. 1,000-1,500 and from Table No. 3 on pages 274-275 it can be seen that all these families can be redeemed, taking into consideration that 6 have lands mortgaged with the local Sowcars, which are not included in their assets. Family No. 13 has got a debt of Rs. 1,905-8 and has got assets of 9 acres and 36 gunthas. The debt from the Sowcar is Rs. 1,600 which is ancestral and as such, there is a possibility of redeeming this family if the history of the debt is taken into consideration and a reduction made to a substantial extent. Family No. 14 has got a debt of Rs. 1,689 and has got an asset of 10 acres. Rs. 650 are taken from a local Sowcar and for that 5 acres are mortgaged and the sum of Rs. 500 is the ancestral debt. So this family also can be redeemed.

There remain 41 families which have got assets of lands upto 5 acres. Out of these families, family No. 15 has got a debt of Rs. 2,567 and has got the asset of 2 acres and 10 gunthas. This family cannot be redeemed unless the provision of the Rural Insolvency Act is applied. Similarly families Nos. 16 and 17 cannot be redeemed as

they have got a large amount of indebtedness and practically no assets. The only hope for these families lies in the Rural Insolvency Act whereby their debts will be wiped off, leaving for them a minimum subsistence of holding or the Government will have to redeem their debts.

Families Nos. 18-25 have debts between Rs. 1,001-1,500, and out of these families Nos. 21 and 22 can be easily redeemed. Family No. 21 has got a debt of Rs. 1,087 and assets of only one acre. But Rs. 950 are taken from the local Sowcars at the rate of 18¾ per cent by mortgaging 11 acres of land and naturally this family can be redeemed from its debts. Family No. 22 has got a debt of Rs. 1,237 and has assets of 5 acres. Besides, 7½ acres are mortgaged with the local Sowcars for the sum of Rs. 750 and naturally, this family also can be redeemed. The remaining six families stand outside the purview of the Land Mortgage Bank.

Families Nos. 26-30 have debts between Rs. 901-1,000 and from the table it can be seen that all the families cannot be redeemed with the help of the Land Mortgage Bank, unless the debts are scaled down to a great extent.

Families Nos. 31-37 have debts between Rs. 801-900. Family No. 31 has the debt of Rs. 874 and has got the asset of 2 acres and 38 gunthas. The sum of Rs. 700 is the ancestral debt for which 3 acres of land are mortgaged, so this family can be redeemed. The remaining six families may not be redeemed with the help of the Land Mortgage Bank, unless the Government comes to their rescue.

Families Nos. 38-43 have debts between Rs. 701-800. All the families except family No. 41 can be redeemed as can be seen from the appendix, with the help of the Land Mortgage Bank.

Families Nos. 48-55 have debts between Rs. 501-600, out of which families Nos. 48, 50 and 55 can be easily redeemed, if special efforts are taken.

In the C group there are 81 families, having assets upto 5 acres, but there are only 4 families having debts of more than Rs. 500 and as such these families come under the purview of the Land Mortgage Bank. Out of these families only one family, i.e. family No. 2, which has got the debt of Rs. 620 and has got the asset of 5 acres can be redeemed, as out of the debt Rs. 620, Rs. 600 are taken from a local Sowcar and for that six acres have been mortgaged.

We have discussed so far the possibility of the debt redemption of 149 families, having assets whose debts are more than Rs. 500. The total amount that will be required by the Land Mortgage Bank

to redeem all these families will be about Rs. 1,65,064, out of which the A group will require Rs. 82,547, B will require Rs. 81,897 and C will require Rs. 620.

But, besides these families there are 580 families—34 having no debts and 546 having debts less than Rs. 500 which cannot come under the purview of the Land Mortgage Bank. Out of the 546 families, 165 are without assets. So, the remaining 381 families are such that they have assets and their debts are less than Rs. 500. Of these 24 families are in the A group, 283 in B and 74 in C.

In the A group all the 24 families have got assets, at least of 5 acres and it is thus obvious that all these families can be easily redeemed with the help of the Multi-purpose Co-operative Societies.

In the B group out of these 283 families, 78 have assets more than 5 acres and naturally they can be easily relieved from their indebtedness. The remaining 205 families have assets upto 5 acres. Out of these families 144 have debts upto Rs. 300 and it may be possible to relieve them by the Multi-purpose Co-operative Societies. The remaining 61 families have debts of more than Rs. 300 and it will not be an easy task to relieve them immediately unless some special measures are resorted to.

In the C group, out of the 74 families, who have assets upto 5 acres, 68 have debts upto Rs. 300 and thus they can be helped by the Multi-purpose Co-operative Societies. The remaining 6 families have debts more than Rs. 300 and for them special efforts are required.

In case of all these families there is a possibility of scaling down the debts taken from the local Sowcars, after going into the history of their debts and then it will be possible for the Multi-purpose Co-operative Societies to help all these families. The system of Palemode debt has ruined some of them and therefore, it is necessary that it should be stopped immediately by some legal enactment. In cases of the Co-operative Societies debts, where there is great accumulation of interest, the societies should scale down the interest and the sums to a great extent and the amount should be repaid by small easy instalments, so that the Co-operative Movement will have a new phase of life and it will start afresh.

There are in all 212 families, having no assets in the B and C groups and out of them 16 (4 families from B group and 12 from C) have no debts. Thus, there are 196 families without assets, who are in debt. Of these 92 are from the B group and 104 from the C group. Out of the 92 families of the B group, 48 have debts of less than Rs. 300 and it will be possible for the Multi-purpose Co-operative Societies to help them, as all these families have taken at least 5

acres of land for cultivation from the landlords and they have got the possibilities of having some subsidiary occupation of mix-farming, such as dairying, poultry-farming, raising of livestock cattle or sheep and goats and bee-keeping. The remaining 44 families have debts more than Rs. 300. It may be possible to scale down their debts, after going into the history of their debts and such families can be helped by the Multi-purpose Co-operative Societies, if their debts, after scaling down come to Rs. 300. The remaining families will have to resort to rural insolvency which should be provided by law, or the Government, like the Bhavnagar State[1] will have to redeem these families.

Out of the 104 families of the C group, having no assets, 88 have debts less than Rs. 200. If the debts are scaled down to a considerable extent and if some provision is made for these families for some of the subsidiary occupations, discussed in the Chapter No. VIII, they can be redeemed. The remaining 16 families will have to take resort either to rural insolvency or the Government will have to come to their rescue.

Thus, it can be seen that almost all the families can be relieved of their debts if the debts from the local Sowcars are scaled down, after carefully going through the history of the debts and the debts from the Co-operative Societies are scaled down in such a way that it will be within their repaying capacities to pay off the annual instalments.

[1] ***Redemption of Agricultural Indebtedness in Bhavnagar State,*** **p. xiii.**

TABLE No. 1

(showing families according to the frequency of indebtedness in relation to their assets in the three Economic groups)

Frequency of Debts	A							B					C		
	Families having assets (acres)							Families having assets (acres)					Families having assets (acres)		
	5-10	10-20	20-30	30-40	40-50	50 and above	Total	Nil	Upto 5	5-10	10-20	Total	Nil	Upto 5	Total
Nil	...	3	1	...	...	...	4	4	5	2	4	15	12	3	15
1-50	...	...	...	...	...	...	...	4	16	1	...	21	16	13	29
51-100	1	1	...	...	...	...	2	15	25	6	...	46	36	22	58
101-150	...	4	...	...	...	...	4	10	36	6	...	52	17	16	33
151-200	1	1	...	...	...	...	2	13	29	8	...	50	19	10	29
201-250	1	2	...	...	...	1	4	3	25	6	1	35	5	5	10
251-300	1	...	1	...	...	1	3	3	13	14	5	35	3	2	5
301-400	2	2	...	...	...	...	4	10	35	14	1	60	3	5	8
401-500	2	1	1	...	1	...	5	7	26	11	5	49	1	1	2
501-600	1	1	1	1	...	1	5	3	8	5	3	19	2	2	4
601-700	3	1	1	...	...	...	5	4	4	5	3	16	...	1	1
701-800	1	3	1	...	1	1	7	4	6	8	2	20	1	1	2
801-900	...	2	1	...	...	...	3	5	7	2	...	14	...	...	...
901-1,000	...	1	2	...	...	...	3	2	5	4	2	13	...	...	...
1,001-1,500	...	7	6	...	1	...	14	5	8	8	2	23	1	...	1
1,501-2,000	1	3	1	...	...	...	5	3	1	3	2	9	...	...	...
2,001-2,500	...	1	2	...	...	...	3	...	1	...	1	2	...	...	...
2,501 and above	1	1	3	3	1	...	9	1	1	...	...	2	...	...	...
Total ...	15	34	21	4	4	4	82	96	251	103	31	481	116	81	197

TABLE No. 2

(showing the history of the total debts of the families to be helped by the Land Mortgage Bank and their assets in the A group)

Families	Debts from Co-operative Societies			Debts from the Local Sowcars					Palemode debts		Total debt	Land owned	Amount of paddy recd.		
	Sum	Interest	Total	Total debt	History of the debts				Amount	No. of khandis to be returned			Family consumption	For sale	Total
					Sum	Duration	Rate of Interest	Secured or unsecured							
	Rs.	Rs.	Rs.	Rs.	Rs.	Years	Per cent		Rs.		Rs.	A. G.			
1	250	...	250	2,100	400	9	12½	...	...	...	2,350	26-6	18¾	37¼	56
					1,500	6	12½	10 acres							
					200	Current	12½	...							
2	...	...	...	2,500	2,500	5	Instalment Rs. 100	9 acres	...	...	2,500	22-0	21¼	52¾	74
3	753	100	853	1,970	1,800	20	6¼	5 „	80	8	2,903	22-0	25	45	70
					100	3	3 khandis	3 „							
					70	Current	12½	...							
4	297	...	297	4,000	3,000	6	15	13 acres	...	...	4,297	25-0	42½	77½	120
					1,000	6	18¾	...							
5	334	72	406	3,950	3,000	18	Instalment	...	...	...	4,356	26-0	26¼	84¾	111
					200	9	„	...							
					500	7	Instalment Rs. 50	...							
					225	1	25	...							
					25	Current	12½	...							

TABLE No. 2—*Continued.*

Families	Debts from Co-operative Societies			Debts from the Local Sowcars					Palemode debts		Total debt	Land owned	Amount of paddy recd.		
	Sum	Interest	Total	Total debt	History of the debts				Amount	No. of khandis to be returned			Family consumption	For sale	Total
					Sum	Duration	Rate of Interest	Secured or unsecured							
	Rs.	Rs.	Rs.	Rs.	Rs.	Years	Per cent		Rs.		Rs.	A. G.			
6	75	...	75	1,700	1,500	4	Instalment Rs. 200 p. y.	12 acres	...	...	1,775	12-0	21¼	28¾	50
					200	Current	25	...							
7	400	209	609	925	600	7	18¾	Ornaments	150	19	1,684	17-8	10	43	53
					225	1	3½ khandis	3½ acres							
					100	Current	12½	...							
8	225	...	225	1,500	1,500	ancestral	Instalment Rs. 300	...	...	...	1,725	18-0	22½	57½	80
9	369	157	526	1,525	1,200	8	Instalment Rs. 50	...	...	...	2,051	18-0	15	36	51
					150	1	3 khandis	3 acres							
					100	12	25	...							
					75	18	Instalments	...							
10	232	...	232	3,000	3,000	15	18¾	15 acres	...	...	3,232	18-0	20	34½	54½
11	815	270	1,085	1,690	1,500	8	...	...	28	4	2,803	10-0	6¼	43¾	50
					140	3	25	...							
					50	Current	12½	...							

12	284	34	318	1,515	600	15	Instalment Rs. 50	...	...	...	1,833	5-0	18¾	47½	66
					250	10	18¾	...							
					250	3	18¾	...							
					225	3	18¾	Ornaments							
					100	2	15	...							
					60	2	18¾	...							
					30	Current	15	...							
13	250	...	250	500	200	4	15	...	...	...	750	6-0	27½	11½	39
					200	4	12½	...							
					100	Current	12½	...							
14	250	40	290	400	150	8	15	3¼ acres	...	...	690	6-0	26¼	11¾	38
					200	4	18¾	...							
					50	ancestral	Instalment Rs. 50	...							
15	200	...	200	463	163	3	18¾	...	...	...	663	9-33½	13¾	33¼	47
					150	3	18¾	Ornaments							
					150	3	...	...							
16	300	200	500	...	...	...	...	...	154	18	654	8-19	52½	22½	75
17	234	...	234	350	150	3	12½	...	...	...	584	6-0	28¾	26¼	55
					25	3	12½	...							
					125	3	18¾	Ornaments							
					50	Current	25	...							

N.B.—The instalments referred to in this Table are yearly instalments.

TABLE No. 3

(showing the history of the total debts of the families to be helped by the Land Mortgage Bank and their assets in the B group)

Families	Debts from Co-operative Societies			Debts from the Local Sowcars					Palemode debts		Total debt	Land owned	Amount of paddy recd.		
					History of the debts										
	Sum	Interest	Total	Total debt	Sum	Duration	Rate of Interest	Secured or unsecured	Amount	No. of khandis to be returned			Family consumption	For sale	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Years	Per cent		Rs.		Rs.	A. G.			
1	290	77	367	1,500	200	10	18¾	...	...	...	1,867	15- 0	12½	8½	21
					200	10	12½	...							
					900	8	9	2½ acres							
					200	Current	12½								
2	400	60	460	1,230	1,000	10	Instalment Rs. 100	...	...	...	1,690	11-12	17½	18½	36
					200	5	,, Rs. 40	...							
					30	2	18¾	...							
3	00	110	610	1,730	375	ancestral	12½	6 acres	...	...	2,340	15- 0	15	19½	34½
					220	15	,,	4 ,,							
					850	7	,,	6 ,,							
					160	6	,,	...							
					75	3	,,	...							
					50	Current	15	...							
4	500	105	605	430	100	8	12½	...	...	...	1,035	8- 0	21½	19¾	41
					250	1	25	...							
					40	Current	12½	...							
					40	,,	18¾	...							

5	250	...	250	775	300	ancestral	...	...	...	...	1,025	6- 0	28¾	11½	40
					150	"	12½	1 acre							
					100	4	"	...							
					100	2	"	...							
					38	1	18¾	...							
					30	Current	...	...							
					57	Current	12½	ornaments							
6	150	...	150	1,050	600	ancestral	...	...	...	...	1,200	10- 0	30	1	31
					450	5	18¾	10 acres							
7	275	61	336	635	600	3	25	6 acres	49	7	1,020	8-13	12½	11½	24
					35	Current	12½	...							
8	155	...	155	955	400	10	18¾	5 acres	56	7	1,166	10- 0	30	13	43
					205	10	25	...							
					300	6	Instalment Rs. 50	...							
					50	1	25	...							
9	100	22	122	1,225	125	ancestral	Instalments	...	...	...	1,347	9- 0	10	13	23
					500	12	18¾	3 acres							
					80	12	25	...							
					400	4	18¾	3 acres							
					120	Current	25	...							
10	50	..	50	1,043	226	6	25	...	56	7	1,149	8-5¼	23¾	20¾	44½
					90	6	Instalment Rs. 25	...							
					400	5	18¾	2½ acres							
					84	3	25	...							
					28	2	18¾	ornaments							
					193	1	12½	...							
					22	Current	25	...							
11	350	200	550	485	400	15	Instalment Rs. 50	...	40	10	1,075	6-24	17½	12½	30
					50	4	12½	...							
					35	Current	25	...							

TABLE No. 3—*Continued.*

Families	Debts from Co-operative Societies			Debts from the Local Sowcars					Palemode debts		Total debt	Land owned	Amount of paddy recd.		
	Sum	Interest	Total	Total debt	History of the debts				Amount	No. of khandis to be returned			Family consumption	For sale	Total
					Sum	Duration	Rate of Interest	Secured or unsecured							
	Rs.	Rs.	Rs.	Rs.	Rs.	Years	Per cent		Rs.		Rs.	A. G.			
12	300	95-8	395-8	935	500	ancestral	Instalment Rs. 50	...	300	30	1,630-8	8- 0	20	12	32
					300	,,	,, Rs. 60	...							
					75	,,	...	...							
					60	Current	12½	...							
13	200	105-8	305-8	1,600	1,600	ancestral	Instalment Rs. 125	...	...	...	1,905-8	9-36	17½	—8½	9
14	395	144	539	1,150	500	ancestral	Instalment Rs. 80	...	...	...	1,689	10- 0	16¼	23¾	40
					650	6	18¾	5 acres							
15	300	63	363	2,172	700	ancestral	Instalment Rs. 50	...	32	4	2,567	2-10	11¼	24¾	36
					1,000	8	18¾	...							
					300	6	,,	...							
					150	1	,,	...							
					22	Current	15	...							
16	315	116	431	1,885	600	12	18¾	...	130	18½	2,446	0-2¾	13¾	26¼	40
					200	12	,,	1¼ acres							
					700	8	,,	...							
					200	6	25	ornaments							
					125	1	18¾	...							
					60	Current	12½	...							

17	250	40	290	1,315	100 700 300 215	7 6 6 4	... Instalment Rs. 50 18¾ Instalment Rs. 30	... ... House ...	...	...	1,605	3- 0	21½	—1½	20
18	500	385	885	400	100 300	5 2	Instalment Rs. 8 ...	... ...	...	...	1,285	3-2¾	21½	—½	21
19	300	132	432	600	500 100	11 Current	18¾ 12½	2¾ acres ...	...	...	1,032	2-20	8¾	—2¾	6
20	400	218	618	860	500 200 95 65	ancestral „ „ Current	... Instalment Rs. 20 ... 18¾	... ...	...	...	1,478	5- 0	11½	8¾	20
21	75	12	87	968	250 700 18	8 6 Current	18¾ „ 12½	2 acres 9 „ ...	32	4	1,087	1- 0	18¾	8½	27
22	250	156	406	766	350 225 100 75 16	8 5 4 4 Current	15 18¾ „ 33⅓ 18¾	3 acres 1¾ „ 1 „ 1¾ „ ...	16	2	1,237	5- 0	13¾	9¾	23½
23	125	30	155	750	500 150 100	ancestral „ 1	Instalment Rs. 40 „ Rs. 20 „ 25	... ... 1½ acres	112	14	1,017	2- 3	18¾	25½	44
24	167	...	167	664	500 100 64	ancestral 5 5	Instalment Rs. 20 36 Instalment Rs. 10	... 1½ acres ...	200	20	1,031	2-7¼	15	23	38

TABLE No. 3—*Continued*

Families	Debts from Co-operative Societies			Debts from the Local Sowcars					Palemode debts		Total debt	Land owned	Amount of paddy recd.		
	Sum	Interest	Total	Total debt	History of the debts				Amount	No. of khandis to be returned			Family consumption	For sale	Total
					Sum	Duration	Rate of Interest	Secured or unsecured							
	Rs.	Rs.	Rs.	Rs.	Rs.	Years	Per cent		Rs.		Rs.	A. G.			
25	232	115	347	800	300	4	12½	...	...	...	1,147	1–10	12½	—2½	10
					300	4	,,	...							
					150	4	,,	...							
					50	Current	,,	...							
26	100	17–8	117–8	800	60	25	25	1¾ acres	...	...	917–8	2– 0	22½	19½	42
					300	8	Instalment	...							
					300	...	five Instalments 3 khandis each								
					100	1	25	...							
					40	Current	12½	...							
27	185	...	185	660	500	6	Instalment	...	110	11	9 5	3–14½	22½	9½	32
					50	3	18¾	...							
					50	2	15	...							
					60	Current	18¾	...							
28	300	31	331	569–8	113–8	ancestral	Instalment	...	...		90 8	4–35	15	...	15
					100	6	25	...							
					50	6	25	ornaments							
					26	6	...	...							
					100	4	25	...							
					50	4	12½	...							
					90	Current	,,	...							
					40	,,	,,	...							

29	300	100	400	303	100	ancestral	Instalment Rs. 25	...	225	32	928	3-36½	11¼	28¾	40
					75	3	18¾	1 acre							
					128	2	,,	2 acres							
30	300	63	363	530	180	ancestral	...	...	16	2	909	2- 0	13¾	16¼	30
					250	12	12½	1 acre							
					100	4	18¾	...							
31	100	22	122	752	700	ancestral	9	3 acres	...	...	874	2-38	10	11	21
					40	2	25	1¾ ,,							
					12	Current	18¾	...							
32	100	...	100	711	500	10	6¼	2½ acres	...	...	811	2-3¾	11¼	7¾	19
					40	5	25	...							
					35	4	25	...							
					50	3	...	...							
					22	3	18¾	ornaments							
					14	3	,,	...							
					50	1	25	...							
33	225	18	243	475	310	ancestral	Instalment	...	100	12	818	5- 0	17½	14½	32
					165	,,	,,	...							
34	149	16	165	646	500	ancestral	18¾	...	...	...	811	2- 0	11¼	6¾	18
					120	,,	Instalment Rs. 15	...							
					26	Current	12½	...							
35	115	...	115	700	600	10	Instalment Rs. 30	...	...	...	815	2-7½	13¾	12½	26
					100	1	18¾	...							
36	218	110	328	535	150	12	12½	...	...	...	863	5- 0	17½	33½	51
					150	4	15	1½ acres							
					200	2	18¾	2 ,,							
					35	Current	12½	...							

TABLE No. 3—*Continued*

Families	Debts from Co-operative Societies			Debts from the Local Sowcars					Palemode debts		Total debt	Land owned	Amount of paddy recd.		
					History of the debts										
	Sum	Interest	Total	Total debt	Sum	Duration	Rate of Interest	Secured or unsecured	Amount	No. of khandis to be returned			Family consumption	For sale	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Years	Per cent		Rs.		Rs.	A. G.			
37	177-8	67-8	245	620	200	ancestral	Instalment Rs. 25	...	...	...	865	1-1¾	7½	3½	11
					60	,,	,, Rs. 10	...							
					300	5	18¾	3 acres							
					60	Current	12½	...							
38	100	44	144	650	150	18	18¾	1 acre	...	...	794	1- 0	15	9	24
					100	3	12½	1 ,,							
					400	2	18¾	4 acres							
39	312	...	312	450	450	1	18¾	6 acres	...	...	762	4-14¾	16¼	23¾	40
40	150	35	185	525	500	9	18¾	2 acres	16	2	726	3- 0	15	—4	11
					25	Current	25	...							
41	150	30	180	550	350	15	Instalment Rs. 50	...	...	...	730	4- 0	17½	—1½	16
					200	5	12½	...							
42	300	173	473	310	150	8	12½	1½ acres	...	...	783	3- 0	15	4	19
					160	7	18¾	1¾ ,,							
43	240	84	324	385	300	6	18¾	1½ acres	...	...	709	5- 0	11¼	13¾	25
					50	2	12½	...							
					25	2	...	...							
					10	Current	25	...							

44	150	20	170	450	100 350	8 3	Instalment Rs. 20 12½	... 3 acres	...	...	620	0-20	12½	—2½	10
45	160	54	214	400	400	15	Instalment Rs. 50	...	...	...	614	3-38½	13	1	14
46	49	...	49	615	400 40 150 25	9 4 2 Current	6¼ 18¾ 15 18¾	1¼ acres ... 1¼ acres ...	...	...	664	4- 0	18¾	5¼	24
47	150	66	216	311	181 100 30	ancestral ,, Current	Instalment Rs. 20 ,, Rs. 25 12½	... ...	88	12	615	4- 0	20	11	31
48	50	16-8	66-8	450	150 200 100	11 3 3	12½ ,, 18¾	1¼ acre 1¼ ,, 1 ,,	...	...	516-8	4-20	8¾	17¼	26
49	150	86	236	200	200	5	12½	...	80 plus 7 kds. Didhi	10	572	5- 0	20	29	49
50	235	50	285	241	50 150 41	6 3 Current	25 ,, 12½	... 3 acres ...	16	2	542	2- 0	7½	12½	20
51	100	...	100	450	450	6	15	...	...	...	550	3- 9	13	2	15
52	199	33	232	280	200 60 20	15 3 Current	Instalment Rs. 15 18¾ 12½	... ...	20	3	532	4- 0	26¼	—9¼	17
53	135	34	169	175	125 50	6 4	25 12½	... ...	200	20	544	2- 0	16¼	18¾	35
54	125	...	125	300	225 75	ancestral subjudice	Instalment Rs. 15 ...	... ...	100	12	525	0-23¼	7½	10	17½
55	192	160	352	200	180 20	1 Current	12½ ...	2¾ acres ...	...	...	552	3-20	8¾	5¼	14

N.B.—The instalments referred to in this Table are yearly instalments.

TABLE No. 4

(showing the history of the total debts of the families to be helped by the Land Mortgage Bank and their assets in the C Group)

Families	Debts from Co-operative Societies			Debts from the Local Sowcars					Palemode debts		Total debt	Land owned	Amount of paddy recd.		
	Sum	Interest	Total	Total debt	History of the debts				Amount	No. of khandis to be returned			Family consumption	For sale	Total
					Sum	Duration	Rate of Interest	Secured or unsecured							
	Rs.	Rs.	Rs.	Rs.	Rs.			Acres	Rs.		Rs.	A. G.			
1	200	44	244	471	16	6 years	12½%	...	16 +	2	759	1-10	7½	2	9½
					140	4 „	„	1½	4 kds.						
					300	2 „	„	2	Didhi						
					10	Current	„	...							
					5	„	18¾%	...							
2	20	...	20	600	600	12 years	15%	6	...	...	620	5-0	5	...	5
3	100	...	100	416	350	5 „	12½%	2½	30	3½	546	1-20	11½	—1½	10
					32	1 year	25%	...							
					34	Current	12½%	...							
4	200	86-8	286-8	250	200	4 years	18¾%	2	...	...	536-8	1-20	6¼	3¾	10
					50	Current	„	...							

APPENDIX B

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APPENDIX No. C

QUESTIONNAIRES

QUESTIONNAIRE No. 1

Information about the Economic Life

1. Name of the Head of the family.
2. Land possessed—(*i*) Kharip and (*ii*) Varkas.
3. Government assessment for the lands.
4. Valuation of the land.
5. Valuation of the other immovable property.
6. Total area of land rented.
7. Total area of land hired for cultivation.
8. Rent taken from the Tenants.
9. Rent given to the Landlords.
10. Total members of the family, viz. (*i*) adults and (*ii*) children.
11. Total quantity of paddy produced of the superior quality and of the inferior quality.
12. Income from the other subsidiary occupations.
13. Total expenditure for the foodstuffs and condiments.
14. Debts from the Co-operative Societies
    - (1) Sum borrowed.
    - (2) When it is borrowed.
    - (3) How much is overdue.
    - (4) Interest due and overdue.
    - (5) Total amount of debt.
    - (6) Deposits and shares.
15. Debts from the Local Sowcars
    - (1) Name of the Sowcar.
    - (2) Total debts.
    - (3) When borrowed.
    - (4) Kind of security.
    - (5) Rate of interest.
    - (6) Amount of interest accumulated.
    - (7) Purpose of indebtedness.
    - (8) Debts in kind.
    - (9) Palemode debts.
    - (10) Total number of khandis that are to be returned in lieu of the palemode debts.
16. Any other information about the Economic Life.

QUESTIONNAIRE No. 2

Information about the members of the family

1. Name.
2. Relation to the head of the family.
3. Age.
4. Married or unmarried.
5. If married at what age.
6. Number of children surviving.
7. Literate or illiterate.

QUESTIONNAIRE No. 3

Information about the villages

I. *General*

1. Name of the village.
2. Population (*i*) males and (*ii*) females.
3. Different castes and races.
4. Number of houses.
5. Different kinds of cart-roads and tracks.
6. Information about the adjoining forests.
7. Provision of water-supply—(*i*) wells, (*ii*) tanks, (*iii*) rivers, (*iv*) rivulets, etc.
8. Rainfall.
9. Provision of water-supply for the untouchables—their difficulties in getting sufficient provision of water.

II. *Lands and crops*

1. Different types of land in the village.
2. Different kinds of crops.
3. Subsidiary crops.
4. Waste land.
5. Different kinds of vegetables grown.

III. *Subsidiary occupations*

1. Different kinds of subsidiary occupations.
2. Number of families carrying out such subsidiary occupations.
3. Total income from such subsidiary occupations.
4. Subsidiary occupations followed in the fair season.
5. Number of subsidiary occupations followed in the past—reasons for their stoppage.
6. Difficulties in following these subsidiary occupations.
7. Types of ferriwalas visiting the villages. Kind of trades followed by them—system of payment of their goods.

IV. *Agricultural Labour*

1. Number of families following Agricultural Labour.
2. Wages for Agricultural Labour.
3. Different castes depending on Agricultural Labour.
4. Conditions of keeping permanent servants.
5. Agricultural labourers coming out of the Taluka.
6. Land left uncultivated owing to the absence of the agricultural labourers.

V. *Trees*

1. Different kinds of trees grown in the village.
2. Number of useful trees.
3. Number of trees in the possession of the Government.
4. New cultivation of useful trees.
5. Uses of the forest trees.

VI. *Public Places*

1. Temples.
2. Mosques.
3. Rest-houses.
4. Schools.
5. Others.

VII. *Shops*

1. Number of shops dealing in daily requirements.
2. System of payment either by cash or by any other method.
3. What kinds of necessary articles are available in the shops.
4. How provision is made of the articles not available in the village shops.
5. Number of fairs held in the villages and what kinds of commodities are available.
6. Provisions of dry fish.

VIII. *Cattle*

1. Bullocks.
2. Cows.
3. Buffaloes.
4. She-buffaloes.
5. Sheep and goats.
6. Horses and asses.
7. Poultry.
8. Cattle-epidemics: how they are cured.
9. Provision of water-supply and grazing land for the cattle.
10. Places from which the cattle are brought.

IX. Provision of Primary Education in the villages in the absence of the village schools where the children are sent for education.

X. Epidemics occurring in the different seasons in the village. What medical facilities are available in the village.

XI. Criminal and Civil suits in which the villagers are involved.

XII. General description of the village.

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Information about expenditure and the family budgets

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2. Amount of paddy required for annual consumption.
3. Other kinds of foodstuffs.
4. Milk.
5. Condiments.
6. Tea, sugar and tobacco.
7. Clothing.
8. Medicine.
9. Religious ceremonies.
10. Miscellaneous.

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