

LAND UTILIZATION

IN

REWA DISTRICT

A Thesis

Submitted for the Degree of
Doctor of Philosophy in Geography
Awadhesh Pratap Singh University, Rewa
1973

under the supervision of
Prof. Janardan Prasad Srivastava
Head of the Department of Geography
Govt. Thakur Ranmat Singh (Postgraduate) College, Rewa (M.P.)

By

B. P. SINGH
LECTURER

DEPARTMENT OF GEOGRAPHY

GOVERNMENT THAKUR RANMAT SINGH (POSTGRADUATE) COLLEGE, REWA (M. P.)

PREFACE

This study of land utilization in the Rewa district is essentially an attempt to interpret the present agricultural pattern in the district and its future planning for purpose of making the optimum use of land, so that it can afford the maximum possible nutrition to the mass of the population.

The writer has divided the thesis into three parts. The first part deals with the physical setting which includes structure, relief, drainage, physical division, climate and soils. All these elements jointly have their effect on land utilization. They make a specific type of region which suits a specific type of agriculture. The second part deals with the general aspect of land utilization in the Rewa district. This part shows land under different uses, the effect of physical environment on crop-combination regions and employment of both old and new techniques of agriculture in the district. This section clearly sets forth the configuration of the Rewa district as a whole. The third part consists in an intensive study of land utilization and for this purpose, the writer has selected total of twelve villages. These are sub-divided into four groups, on the basis of their soil classification. The last chapter concludes the study with a consideration of the handicaps to agriculture typical of this region and of their possible removal.

Published as well as unpublished books, reports, statistical records, maps made available by the Director Land Records, topographical maps, data collection, interviews, with actual peasants' and field workers and lastly, first hand work of survey and observation have been the principal aids to the completion of this work. For the first part of this thesis the author has consulted the His Highness the Maharaja of Rewa's personal library at Rewa, the Rewa central library, the B.H.U. library, Varanasi, the Agra university library, the Vikram University library, Ujjain. The Director of Geology and mining, Bhopal, the regional meteorological department, Nagpur, the J.L.N. Agriculture university, Jabalpur have been of abundant help and benefit to the writer. The second part has been fixed by much vital information from the forest department Rewa, the season and crop reports, provided by the office of Superintendent, Land Records, Rewa on behalf of the director of Land Records Madhya Pradesh, Gwalior, The Agriculture College, Rewa and various published papers on crop-combinations regions. In the third part use was made of the base map of selected sample villages obtained from the office of the collector, Rewa. The writer visited the sample villages, both in the 'kharif' and the 'Rabi' seasons, and noted the area under different crops, the extent of irrigated land, the quality of land in terms of its crop yield and productivity as well as the caloric intake of the people per head. The author is happy to record his grateful appreciation of the hospitality he freely and invariably received from the people of the villages he visited.

B. P. Singh

CONTENTS

	Pages
Certificate by Prof. Janardan Prasad Srivastava :	I
Preface	: II & III
Acknowledgement	: IV
Contents	: V TO XI
List of Figures	: XII TO XVII
List of Tables	: XVIII TO XXVII
List of plates	: XXVIII TO XXX
Introduction	: XXXI TO XXXVII

CHAPTER I

SUBJECT AND METHODOLOGY	: 1 To 9
Introduction, Objectives of land utilization research, Geographical Concept of land utilization. Bibliography.	

PART I

PHYSICAL SETTINGS

CHAPTER II

STRUCTURE AND RELIEF	: 10 To 22
Structure : The Upper Vindhyan, Bhandar series, Rewa series, Bahour series. Relief : The Teraihar, The Upariwar, The Sahar. Bibliography	

CHAPTER III

DRAINAGE 23 to 34

Rivers : The Tons, The Bihar,

The Mahanadi, The Selan

Tanks, Bandhs, Baoris

Bibliography

CHAPTER IV

PHYSICAL DIVISIONS 35 to 41

Hilly Tract : The Kaimur hills,

The Binjh hills

Plateau, Plain Tract

Bibliography

CHAPTER V

CLIMATE 42 to 59

The rainy season, The winter season

The summer season

Variability of rainfall

Variability from the median

Bibliography

CHAPTER VI

SOILS 60 to 73

Soils, The traditional Classification
of Soil, Classification of Soil on the
basis of productivity, Local
classification of Soil. Classification
of soil on the basis of texture.

	Pages
(i) Alluvium	
(ii) The Black Soil : The Mair, The Kabar	
(iii) The Red Soil : The Parva, The Ranlar	
(iv) The Red and Black soil. Soil Profile, Chemical & Mechanical Analysis of soils Bibliography	

PART II

GENERAL LAND UTILIZATION IN REWA DISTRICT

CHAPTER VII

FORESTS	74 to 96
Reserve forests, Protected forests, Description of forest types. Southern Tropical dry deciduous (Tea forests), Southern Tropical dry deciduous (mixed forests), Northern Tropical dry deciduous (dry Peninsular Sal forests), Anogeissus Pendula (Kardhai forests), Anogeissus Pendula scrub (Kardhai scrubs), Boarellia forests (malai forests).	

Dry bamboo, Acacia consociation (Khair forests), Diospyrous- Lagerstromia (Tendu-sedha forests)	
Utilization of forest produce: Timber, grazing, fuel, bamboo, Katha, tendu leaves, gum, fruits etc	
Bibliography	

CHAPTER VIII

LAND CLASSIFICATION	97 to 122
Land not available for cultivation	
(i) Land put to non-agricultural uses	
(ii) Barren and unculturable land	
Other Cultivable lands.	
(i) Permanent pasture and other grazing lands, pasture and livestock.	
(ii) Land under miscellaneous trees orchards and groves.	
Culturable waste lands	
Fallow lands: Current fallow, old fallow	
Area Sown: Net area sown, double cropped area, Gross cropped area	
Readings.	

CHAPTER IX

CROP COMBINATION 123 to 149

Crop combination regions in Rava district, Monoculture, No crop-combination, three crop combination, Four crop combination, Five crop combination regions

Ranking of crops in Rava District

Readings.

CHAPTER X

AGRICULTURAL TECHNIQUES 150 to 168

The Agricultural Proverbs

Andra, Purva-Punharvasu, Awati, Nagha

Uttara, Aisati, Hathia, Alesha, Pashya,

Hasta, Chitra.

Agricultural Techniques : Ploughing,

Puddling, Manuring, Seed and their

sowing, weeding, Insecticides, Irrigation,

Harvesting, threshing.

Cropping : mixed cropping, subsistence

type of farming, the extensive type of

agriculture, The intensive type of

agriculture

Bibliography

(x)

PART III

SAMPLE LAND UTILIZATION IN REVA DISTRICT

Pages

CHAPTER VI

THE SELECTION OF SAMPLE VILLAGES 169 to 212

The selected villages : Group I, Group II,
Group III, Group IV.

Location, Climate, Land classification,
Irrigation, Land utilization, Kharif
season, Rabi season.

Crops : Kharif crops, Rabi crops, Others
Kharif crops : Rice, Jowar, Bajra, Cotton,
Soybean, Green gram, Black gram, Sesamum,
Sun hemp, Maize.

Rabi Crops : Wheat, Gram, Barley, Peas,
Lentil, Linseed.

Others : The betel vine

Green revolution, Rotation of crops.

Land use and population, Caloric intake.

Production, Export, Import, Available supply.

Seeds, Food (Gross), Extraction rate, Food net,

Per head consumption, Kms per day, Calories
per day, Bibliography.

CHAPTER VII

GROUP I

213 to 272

Baghodi, Luchaki, Lavarpurwa.

CHAPTER XIII

GROUP II

273 to 326

Sagara Ward, Chandehari,
Kharoli

CHAPTER XIV

GROUP III

327 to 378

Hataha, Pipara, Putari.

CHAPTER XV

GROUP IV

379 to

Mahavirpur, Unehara,
Gambhirpur

Under the following heads

Location, Climate, Land

Classification, Irrigation,

Land utilization, Land utilization

in Kharif season, Land utilization

in Rabi season, Double Cropped land,

Land use and population, caloric

Intake, Potential Production units.

Hydrography.

CHAPTER XVI

CONCLUSION

Glossary

Tables

LIST OF FIGURES

S.No.	Figure Number	Title
INTRODUCTION		
1.	1	Location of Rewa District
CHAPTER II STRUCTURE AND RELIEF		
2.	2	Geological Map of Rewa District
3.	3	Rewa District Contours
CHAPTER III DRAINAGE		
4.	4	Rewa District Drainage
CHAPTER IV PHYSICAL DIVISIONS		
5.	5	Physical Divisions Rewa District
CHAPTER V CLIMATE		
6.	6	Rewa District Average rainfall June to October
7.	7	Composite Rainfall and Relief profile from Teonthar to Govindgarh.
8.	8	Hythergraph for Rewa 1970 & 1971
9.	9	Rewa District Average Monthly Rainfall
10.	10	Clinograph for Rewa 1970 & 1971
11.	11	Highest Maximum & Lowest Minimum Monthly Temperature at Rewa.
12.	12	Mean Maximum & Minimum Monthly Temperature at Rewa.
13.	13	Mean Monthly Temperature at Rewa.
14.	14	Rewa District Average Rainfall Nov. to Feb.
15.	15	Rewa District Average Rainfall March to May.
16.	16	Rewa District Average Annual Rainfall.

No.	Figure Number	Title
17.	17	Annual Rainfall and Rainy days of selected stations.
18.	18	Rainfall Dispersion Diagram for Rewa 1940-1971
19.	19	Median Monthly Rainfall & Semi-inter quartile Range for Rewa 1940-1971
CHAPTER VI SOILS		
20.	20	Rewa District Soils
CHAPTER VII FORESTS		
21.	21	Rewa District Forests
CHAPTER VIII THE SLECTION OF 5 MODEL VILLAGES		
22.	22	Rewa District Location of selected Villages
CHAPTER IX GROUP I (BAGHEDI)		
23.	01	Location of Village Baghedi
24.	02	Baghedi Land Classification
25.	03	Baghedi Irrigation 1970-71
26.	04	Baghedi Land Utilization 1970-71
27.	05	Baghedi Land Utilization Kharif Season 1970-71
28.	06	Baghedi Land Utilization Rabi Season 1970-71
29.	07	Baghedi Double Cropped 1970-71
(LUCHAKI)		
30.	01	Location of Village Luchaki
31.	02	Luchaki Land Classification
32.	03	Luchaki Irrigation 1970-71
33.	04	Luchaki Land Utilization 1970-71
34.	05	Luchaki Land Utilization Kharif Season 1970-71

S.N.	Figure Number	Title
35.	36	Luchaki Land Utilization Rabi Season 1970-71
36.	37	Luchaki, Double Cropped 1970-71 (LAVARPURWA)
37.	L1	Location of Village Lavarpurwa
38.	L2	Lavarpurwa Land Classification
39.	L3	Lavarpurwa Irrigation 1970-71
40.	L4	Lavarpurwa Land Utilization 1970-71
41.	L5	Lavarpurwa Land Utilization Kharif Season 1970-71
42.	L6	Lavarpurwa Land Utilization Rabi Season 1970-71
43.	L7	Lavarpurwa Double Cropped 1970-71 CHAPTER VIII GROW II (SAGARAKHURD)
44.	S1	Location of Village Sagarakhurd
45.	S2	Sagarakhurd Land Classification
46.	S3	Sagarakhurd Land Utilization 1970-71
47.	S4	Sagarakhurd Land Utilization Kharif Season 1970-71.
48.	S5	Sagarakhurd Land Utilization Rabi Season 1970-71.
49.	S6	Sagarakhurd Double Cropped 1970-71 (CHANDEHARI)
50.	C1	Location of Village Chandehari
51.	C2	Chandehari Land Classification
52.	C3	Chandehari Irrigation 1970-71.

S.N.	Figure Number	Title
53.	C4	Chandehari Land Utilization 1970-71
54.	C5	Chandehari Land Utilization Kharif Season 1970-71
55.	C6	Chandehari Land Utilization Rabi Season 1970-71.
56.	C7	Chandehari Double Cropped 1970-71 (KHAROLI)
57.	K1	Location of Village Kharoli.
58.	K2	Kharoli Land Classification
59.	K3	Kharoli Irrigation 1970-71
60.	K4	Kharoli Land Utilization 1970-71
61.	K5	Kharoli Land Utilization Kharif Season 1970-71
62.	K6	Kharoli Land Utilization Rabi Season 1970-71
63.	K7	Kharoli Double Cropped 1970-71 CHANDI NIV GROUP III (KHAROLI)
64.	H1	Location of Village Hataha
65.	H2	Hataha Land Classification
66.	H3	Hataha Irrigation 1970-71
67.	H4	Hataha Land Utilization 1970-71
68.	H5	Hataha Land Utilization Kharif Season 1970-71
69.	H6	Hataha Land Utilization Rabi Season 1970-71
70.	H7	Hataha Double Cropped 1970-71

No.	Figure Number	Title
(PIPARA)		
71.	01	Location of village Pipara
72.	02	Pipara Land Classification
73.	03	Pipara Land Utilization 1970-71
74.	04	Pipara Land Utilization Kharif season 1970-71
75.	05	Pipara Land Utilization Rabi season 1970-71
76.	06	Pipara Double Cropped 1970-71
(PUTARI)		
77.	P1	Location of Village Putari
78.	P2	Putari Land Classification
79.	P3	Putari Land Utilization 1970-71
80.	P4	Putari Land Utilization Kharif season 1970-71
81.	P5	Putari Land Utilization Rabi season 1970-71
82.	P6	Putari Double Cropped 1970-71
CHAPTER XV GROUP IV (MAHAVIRPUR)		
83.	M1	Location of Village Mahavirpur
84.	M2	Mahavirpur Land Classification
85.	M3	Mahavirpur Irrigation 1970-71
86.	M4	Mahavirpur Land Utilization 1970-71
87.	M5	Mahavirpur Land Utilization Kharif season 1970-71
88.	M6	Mahavirpur Land Utilization Rabi season 1970-71
89.	M7	Mahavirpur Double Cropped 1970-71

No.	Figure Number	Title
(UCHHARA)		
90.	U1	Location of Village Uchhara
91.	U2	Uchhara Land Classification
92.	U3	Uchhara Land Utilization 1970-71
93.	U4	Uchhara Land Utilization Kharif Season 1970-71
94.	U5	Uchhara Land Utilization Rabi Season 1970-71
95.	U6	Uchhara Double Cropped 1970-71
(GAMBHIRPUR)		
96.	G1	Location of Village Gambhirpur
97.	G2	Gambhirpur Land Classification
98.	G3	Gambhirpur Irrigation 1970-71
99.	G4	Gambhirpur Land Utilization 1970-71
100.	G5	Gambhirpur Land Utilization Kharif Season 1970-71
101.	G6	Gambhirpur Land Utilization Rabi Season 1970-71
102.	G7	Gambhirpur Double Cropped 1970-71

LIST OF TABLES

No.	Table Number	Title
CHAPTER V CLIMATE		
1.	CI	Hythergraph for Rewa 1970 & 1971
2.	CII	Climograph for Rewa 1970
3.	CIII	Climograph for Rewa 1971
4.	CIV	Mean Monthly Maximum Temperature at Rewa 1965 to 1971
5.	CV	Mean Monthly Minimum Temperature at Rewa 1965 to 1971
6.	CVI	Monthly Highest Maximum Temperature at Rewa 1965 to 1971
7.	CVII	Monthly Lowest Minimum Temperature at Rewa 1965 to 1971
8.	CVIII	Mean Monthly Temperature at Rewa 1965 to 1971
9.	CIX	Monthly and Annual Rainfall at Rewa 1940 to 1971
10.	CX	Rainfall of Tahsil Huzar, Keonhar, Mauganj & Birmour 1961 to 1971
11.	CXI	Rainfall Dispersion Diagram & Median Average Monthly Rainfall & semi-inter quartile range of Rewa 1940-1971
12.	CXII	Average rainfall data 1920 to 1971
13.	CXIII	Rainfall of selected stations from June to October 1970-71
14.	CXIV	Rainfall of selected stations from November to February 1970-71
15.	CXV	Rainfall of selected stations from March to May 1970-71

S. No.	Table Number	Title
CHAPTER VII FORESTS		
16	F I	Reserve and Protected forests 1971
17	F II	Teak forests 1971
18	F III	Mixed forests 1971
19	F IV	Dry Peninsular Sal forests 1971
20	F V	Kardhai forests 1971
21	F VI	Kardhai scrub 1971
22	F VII	Salai forests 1971
23	F VIII	Dry bamboo 1971
24	F IX	Khair forests 1971
25	F X	Tandu-Sodha forests 1971

CHAPTER VIII LAND CLASSIFICATION

26	LC I	Land put to non-agricultural uses 1961-71
27	LC II	Barren and unculturable lands 1961-71
28	LC III	Annual variation in Permanent Pasture and other grazing lands 1961-71
29	LC IV	Annual variation in land under miscellaneous tree crops and groves. 1961-71
30	LC V	Annual variation in culturable waste lands 1961-71
31	LC VI	Annual variation in current fallow land 1961-71
32	LC VII	Annual variation in old fallow land 1961-71
33	LC VIII	Annual variation in net area sown 1961-71
34	LC IX	Annual variation in double cropped land 1961-71
35	LC X	Annual variation in total cropped area 1961-71

No	Table Number	Title
CHAPTER IX CROP COMBINATIONS		
36	CC I	Analysis of weaver's formula for Hazur Tahsil 1967 to 1971
37	CC II	Analysis of weaver's formula for Raiganj Tahsil 1967 to 1971
38	CC III	Analysis of weaver's formula for Simaur Tahsil 1967 to 1971
39	CC IV	Analysis of weaver's formula for Teonthar Tahsil 1967 to 1971
40	CC V	Analysis of weaver's formula for Rewa district 1967 to 1971
41	CC VI	Ranking of crops 1967 to 1971
42	CC VII	Ranking of crops Tahsil-wise 1967 to 1971
CHAPTER X AGRICULTURE EXTENSION		
43	AT I	Agricultural operations
44	AT II	The application of farmyard manure
CHAPTER XI (BAGHEDI) B. 1971		
45	B I	Rainfall at Teonthar Kharif season 1970-71
46	B II	Rainfall at Teonthar 'Rabi' season 1970-71
47	B III	Baghedi : Land Classification 1970-71
48	B IV	Baghedi : Land Utilization 1970-71

(xxi)

No.	Table Number	Title
49	B V	Baghedi : Total number of plots 1970-71
50	B VI	Baghedi : Land utilization 'Kharif' season 1970-71
51	B VII	Baghedi : Land utilization "rabi" season 1970-71
52	B VIII	Baghedi : Land use and population 1970-71
53	B IX	Baghedi : Average yield 1970-71
54	B X	Baghedi : Caloric Intake 1970-71
55	B XI	Baghedi : Potential production unit 1970-71
(UCHAKI)		
56	C I	Rainfall at Teonthar 'Kharif' season 1970-71
57	C II	Rainfall at Teonthar 'rabi' season 1970-71
58	C III	Uchaki : Land classification 1970-71
59	C IV	Uchaki : Land utilization 1970-71
60	C V	Uchaki : Total number of plots 1970-71
61	C VI	Uchaki : Land Utilization 'Kharif' season 1970-71
62	C VII	Uchaki : Land utilization 'rabi' season 1970-71
63	C VIII	Uchaki : Land use and population 1970-71
64	C IX	Uchaki : Average yield 1970-71
65	C X	Uchaki : Caloric Intake 1970-71
66	C XI	Uchaki : Potential production unit 1970-71

No.	Table Number	Title
		(LAVARPURWA)
67	L I	Rainfall at Teonthar 'Kharif' season 1970-71
68	L II	Rainfall at Teonthar 'Rabi' season 1970-71
69	L III	Lavarpurwa : Land classification 1970-71
70	L IV	Lavarpurwa : Land utilization 1970-71
71	L V	Lavarpurwa : Total number of plots 1970-71
72	L VI	Lavarpurwa : Land utilization 'Kharif' season 1970-71
73	L VII	Lavarpurwa : Land utilization 'rabi' season 1970-71
74	L VIII	Lavarpurwa : Land use and Population 1970-71
75	L IX	Lavarpurwa : Average yield 1970-71
76	L X	Lavarpurwa : Caloric Intake 1970-71
77	L XI	Lavarpurwa : Potential Production Unit 1970-71

CHAPTER XXII (SAGARA KHURD) PART II

78	S I	Rainfall at Nauganj 'kharif' season 1970-71
79	S II	Rainfall at Nauganj 'rabi' season 1970-71
80	S III	Sagara Khurd : Land classification 1970-71
81	S IV	Sagara Khurd : Land utilization 1970-71
82	S V	Sagara Khurd : Total number of plots 1970-71
83	S VI	Sagara Khurd : Land utilization 'kharif' season 1970-71

Sl. No.	Table No.	Title
14.	S VII	Sagara Khurd : Land utilisation 'rabi' season 1970-71
15	S VIII	Sagara Khurd : Land use and population 1970-71
16	S IX	Sagara Khurd : Average yield 1970-71
17	S X	Sagara Khurd : Caloric Intake 1970-71
18	S XI	Sagara Khurd : Potential Production unit 1970-71
(CHANDEHARI)		
19	C I	Rainfall at Rewa 'Kharif' season 1970-71
20	C II	Rainfall at Rewa 'rabi' season 1970-71
21	C III	Chandehari : Land classification 1970-71
22	C IV	Chandehari : Land utilisation 1970-71
23	C V	Chandehari : Total number of plots 1970-71
24.	C VI	Chandehari : Land utilisation 'Kharif' season 1970-71
25	C VII	Chandehari : Land utilization 'rabi' season 1970-71
26	C VIII	Chandehari : Land use and population 1970-71
27	C IX	Chandehari : Average yield 1970-71
28	C X	Chandehari : Caloric Intake 1970-71
29	C XI	Chandehari : Potential Production Unit 1970-71
(KHAROLI)		
100	K I	Rainfall at Sirmour 'Kharif' season 1970-71
101	K II	Rainfall at Sirmour 'rabi' season 1970-71
102	K III	Kharoli : Land classification 1970-71

No.	Table No.	Title.
103	K IV	Kharoli : Land utilization 1970-71
104	K V	Kharoli : Total number of plots 1970-71
105	K VI	Kharoli : Land utilization 'Kharif' season 1970-71
106	K VII	Kharoli : Land utilization 'rabi' season 1970-71
107	K VIII	Kharoli : Land use and Population 1970-71
108	K IX	Kharoli : Average yield 1970-71
109	K X	Kharoli : Caloric intake 1970-71
110	K XI	Kharoli : Potential production unit 1970-71
CHAPTER XIV (HATAHA) PART III		
111	H I	Rainfall at Sirmour 'Kharif' season 1970-71
112	H II	Rainfall at Sirmour 'rabi' season 1970-71
113	H III	Hataha : Land classification 1970-71
114	H IV	Hataha : Land utilization 1970-71
115	H V	Hataha : Total number of plots 1970-71
116	H VI	Hataha : Land utilization 'Kharif' season 1970-71
117	H VII	Hataha : Land utilization 'rabi' season 1970-71
118	H VIII	Hataha : Land use and population 1970-71
119	H IX	Hataha : Average yield 1970-71
120	H X	Hataha : Caloric Intake 1970-71
121	H XI	Hataha : Potential Production Unit 1970-71

S.No.	Table No.	Title
(PIPARA)		
122	O I	Rainfall at Rewa 'kharif' season 1970-71
123	O II	Rainfall at Rewa 'rabi' season 1970-71
124	O III	Pipara : Land classification 1970-71
125	O IV	Pipara : Land utilization 1970-71
126	O V	Pipara : Total number of plots 1970-71
127	O VI	Pipara : Land utilization 'kharif' season 1970-71
128	O VII	Pipara : Land utilization 'rabi' season 1970-71
129	O VIII	Pipara : Land use and population 1970-71
130	O IX	Pipara : Average yield 1970-71
131	O X	Pipara : Caloric Intake 1970-71
132	O XI	Pipara : Potential Production Unit 1970-71
(PUTARI)		
133	P I	Rainfall at Rewa 'kharif' season 1970-71
134	P II	Rainfall at Rewa 'rabi' season 1970-71
135	P III	Putari : Land classification 1970-71
136	P IV	Putari : Land utilization 1970-71
137	P V	Putari : Total number of plots 1970-71
138	P VI	Putari : Land utilization 'kharif' season 1970-71
139	P VII	Putari : Land utilization 'rabi' season 1970-71
140	P VIII	Putari : Land use and population 1970-71
141	P IX	Putari : Average yield 1970-71
142	P X	Putari : Caloric Intake 1970-71
143	P XI	Putari : Potential Production Unit 1970-71

S.No.	Table No.	Title
CHAPTER XV (MAHAVIRPUR) GROUP IV		
144	M I	Rainfall at Mauganj 'kharif' season 1970-71
145	M II	Rainfall at Mauganj 'rabi' season 1970-71
146	M III	Mahavirpur : Land classification 1970-71
147	M IV	Mahavirpur : Land utilization 1970-71
148	M V	Mahavirpur : Total number of plots 1970-71
149	M VI	Mahavirpur : Land utilization 'kharif' season 1970-71
150	M VII	Mahavirpur : Land utilization 'rabi' season 1970-71
151	M VIII	Mahavirpur : Land use and population 1970-71
152	M IX	Mahavirpur : Average yield 1970-71
153	M X	Mahavirpur : Caloric Intake 1970-71
154	M XI	Mahavirpur : Potential Production Unit 1970-71
(UCHEHARA)		
155	U I	Rainfall at Mauganj 'kharif' season 1970-71
156	U II	Rainfall at Mauganj 'rabi' season 1970-71
157	U III	Uchehara : Land classification 1970-71
158	U IV	Uchehara : Land utilization 1970-71
159	U V	Uchehara : Total number of plots 1970-71
160	U VI	Uchehara : Land utilization 'kharif' season 1970-71
161	U VII	Uchehara : Land utilization 'rabi' season 1970-71.

No.	Table No.	Title
162	U VIII	Uchshara : Land use and Population 1970-71
163	U IX	Uchshara : Average yield 1970-71
164	U X	Uchshara : Caloric Intake 1970-71
165	U XI	Uchshara : Potential Production Unit 1970-71
(GAMBHIRPUR)		
166	G I	Rainfall at Sirmour 'kharif' season 1970-71
167	G II	Rainfall at Sirmour 'rahir' season 1970-71
168	G III	Gambhirpur : Land classification 1970-71
169	G IV	Gambhirpur : Land utilization 1970-71
170	G V	Gambhirpur : Total number of plots 1970-71
171	G VI	Gambhirpur : Land utilization 'kharif' season 1970-71
172	G VII	Gambhirpur : Land utilization 'rahi' season 1970-71
173	G VIII	Gambhirpur : Land use and population 1970-71
174	G IX	Gambhirpur : Average yield 1970-71
175	G X	Gambhirpur : Caloric Intake 1970-71
176	G XI	Gambhirpur : Potential Production Unit 1970-71

LIST OF PLATES

No.	Plate No.	Title.
CHAPTER III DRAINAGE		
1.	D 1	Water-Fall Chachai
2	D 2	Tank of Chachai Fall
3	D 3	Water-fall Ghoghar
4	D 4	Keoti Water-Fall
CHAPTER X AGRICULTURAL TECHNIQUES		
5	A.T. 1	Country Plough
6	A.T. 2	Mould Board Plough
7	A.T. 3	Mould Board Plough
8	A.T. 4	Tractor with implements & Threshing floor
9	A.T. 5	Power-tiller
10	A.T. 6	Puddlers
11	A.T. 7	Bullock-Cart
12	A.T. 8	The cowdung cakes used for fuel
13	A.T. 9	The sowing by drilling method
14	A.T. 10	The improved seed drill
15	A.T. 11	The country made Horticulture implements
16	A.T. 12	Improved Horticulture implements
17	A.T. 13	The power sprayer
18	A.T. 14	A Irrigational well
19	A.T. 15	Irrigation by Dhanlauli

No.	Plate No.	Title
20	A.T. 16	A pumping set fitted in a well
21	A.T. 17	Irrigation from a tank by a pumping set
22	A.T. 18	Irrigation from a river by a pumping set
23	A.T. 19	Harvesting by a manual labourer
24	A.T. 20	Threshing by bullocks
25	A.T. 21	The power driven agricultural implements
26	A.T. 22	Ill fed cattle

CHAPTER XIII GROUP I BAGHUR

27	B 1	Hajhadi from Mangaya towards Luchaki on N.H. 27
28	B 2	Road joining proposed bridge at Tons (LUCHAKI)
29	C 1	An old establishment
30	C 2	The unmetalled road joining Dabhaura and Teonthar.

(LAVARPURVA)

31	D 1	River confluence - Tons and Nagardaha Nala
32	D 2	A rudimentary house

CHAPTER VIII GROUP II (SALUDA - KANBI)

33	S 1	Govt. Agriculture Farm
34	S 2	The out cropped black sandstone

No.	Plate No.	Title
(CHINDHARI)		
25	C 1	An earthen- House thatched with country tiles
26	C 2	River Dichha - The source of water
(Kharoli)		
27	K 1	A sower tilling bullocks for tilling
28	K 2	An old fallow land used as pasture
CHAPTER XIV GROUP III (HIST.)		
29	H 1	Villagers are preparing country tiles
30	H 2	A old house
(PIPARA)		
31	O 1	Buildings on surface
32	O 2	A village house
(PUNRI)		
33	P 1	Local grain measuring pots
34	P 2	A Nala sight
CHAPTER XV GROUP IV (ETHNOG.)		
35	N 1	The distance of Dactalab from Anwarpur is shown by a Km. stone.
36	N 2	The signboard near the village.
(UCHHARA)		
37	U 1	Killock
38	U 2	Orchard
(GAMBHIRPUR)		
39	G 1	The tank sight with carved statue
40	G 2	Bathing spot

(xod)

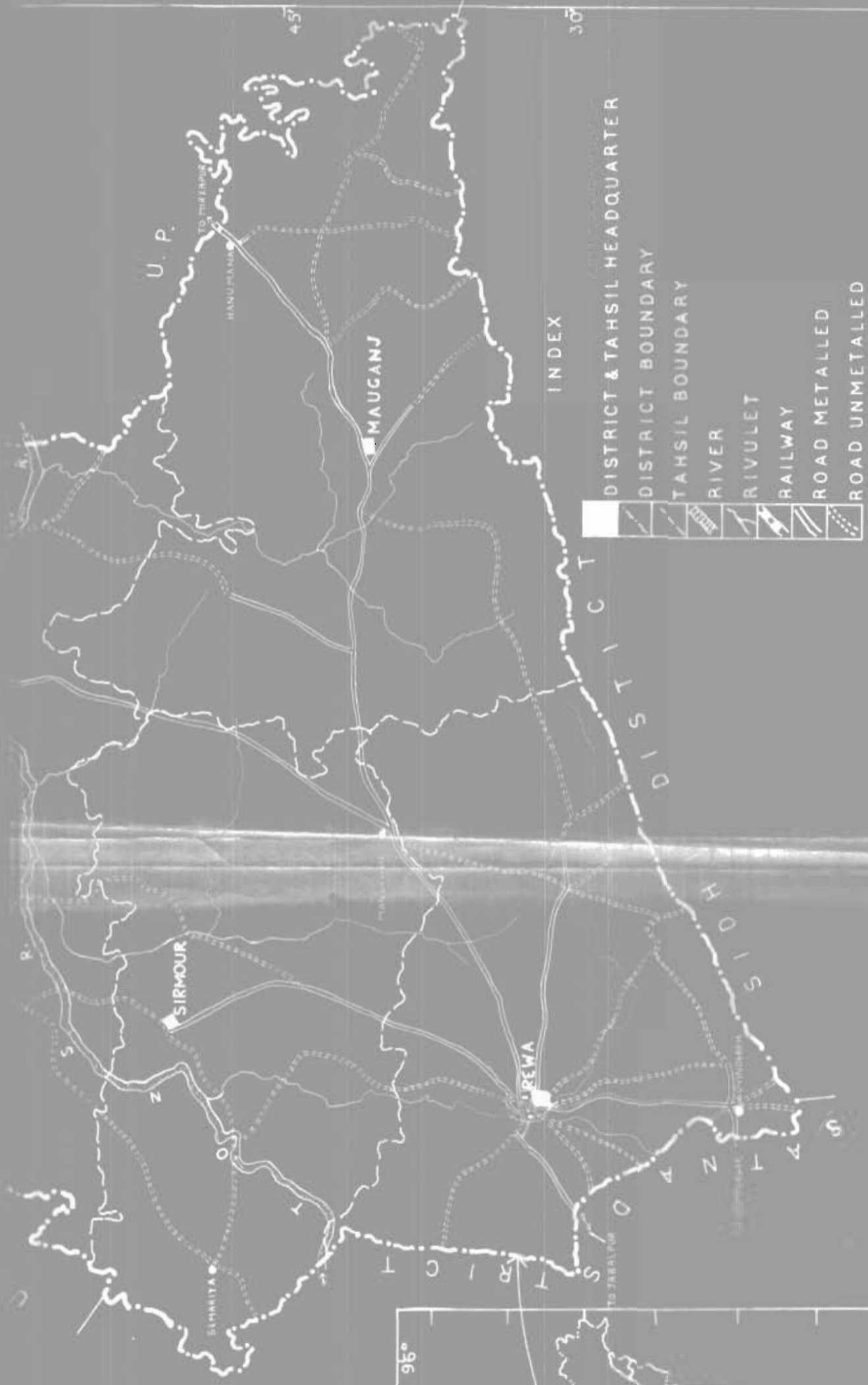
INTRODUCTION

All the religions of the world tell us that

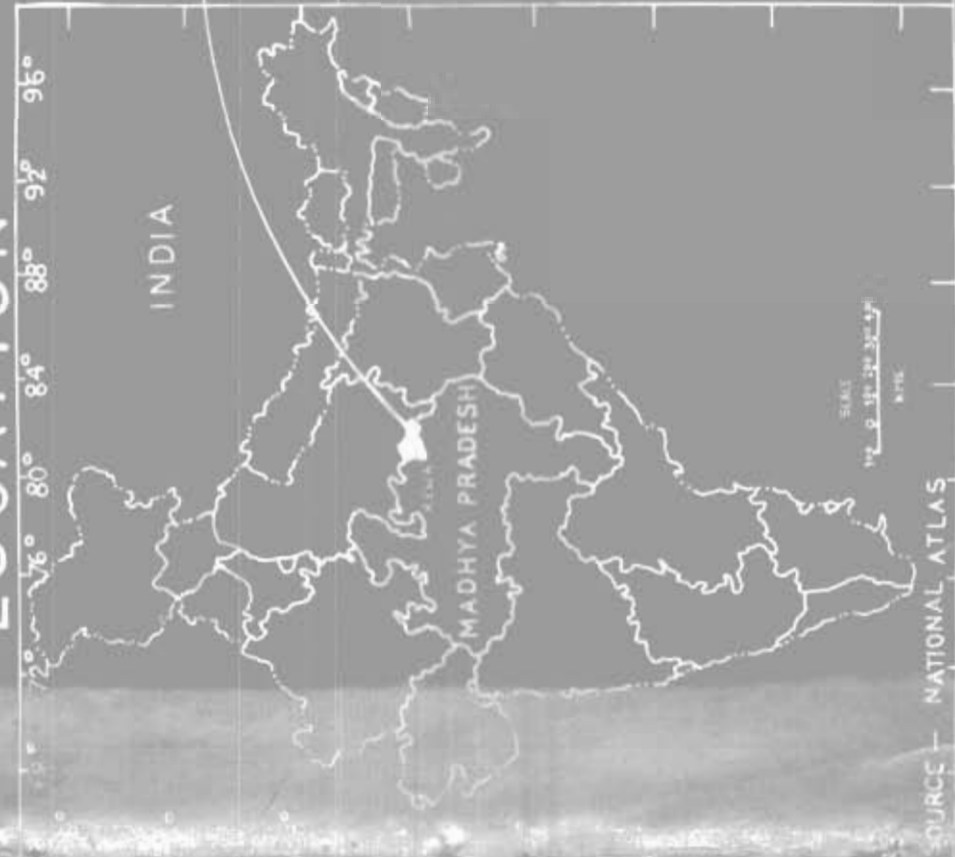
Food, clothing and shelter are essential for human life. Food is of paramount importance. Storing and utilizing it in lean periods can be said to have been the practice throughout human history. Granaries of ancient times are the monument of this fact. Good crop was dependent on good and timely rains. Rotation of crops was, for a long time, the only source of manuring. The rapid growth of population has created a problem for our nation to produce more food to feed the ever increasing number of mouths. India is an agricultural country most of the population depends on the exploitation of land. Most of our food is derived from farm products, therefore, the first need is to make possible the improvement of agriculture to provide nutrition for everyone. The soil of Rewa district is very poor in its nitrogen contents and the yield of various crops per hectare is very low. The rural population of this district lives in houses made of mud covered with tiles in unhygienic and unhealthy conditions.

DESCRIPTION OF THE REWA DISTRICT :

The district derives its present name from its chief town, which is a synonym for Narbada river. It lies between $24^{\circ}18'$ to $25^{\circ}12'$ north latitude and $81^{\circ}2'$ to $82^{\circ}18'$ east



LOCATION



SOURCE - SURVEY OF INDIA MAP No. 63 G.H.J. 81°15' 30' 45' 82° 15'

longitude. In the north, the boundary of the district runs along that of the Uttar Pradesh, in the west, along that of the Amerpatan and Raghurajnagar tahsil of Satna district, in the south, the Sidhi district and in the east we again have the Uttar Pradesh. The area of the district is 6,287.5 square kms. as shown in Fig. 1. The district has 2297 inhabited villages. The shape of the district is like an isosceles triangle, with its base along the border of the Satna district and the two longer arms converging towards Maujanj in the east. So far as the area is concerned, it holds the thirty third position in descending order in the state of Madhya Pradesh. The Rewa town is the divisional head quarter.

The town is situated on a picturesque spot near the confluence of the Bilir and Bichhia rivers, which there after flow through a deep, rocky channel. The old town is still enclosed by a wall, 6 metres in height.

The antiquity of Rewa is that it became the chief town after the destruction of Bandogah, the old capital by Akbar in 1597. Vikramaditya added palaces and other buildings and raised it from the position of a fortified town to one befitting the capital of a large state. In about 1731 Rewa was attacked and sacked by Harde shah of Panna, Raja Adhat Singh, the ruler, was thrown away. In 1882 a large part of the modern town was destroyed by a flood. The upper portion of the town is known as "Uparahati" and the low lying area is known as "Tarahati". The town is developing on all sides with new construction.

Rewa district is divided into four tahsils for the purpose of administration. In the year 1911, only three of these four tahsils existed Teonthar, Huzur and Mauganj, differing considerably in constitution from the present tahsils. The Birmour tahsil came into existence in 1916-1917. To form this tahsil 275 villages were taken from Huzur tahsil, 144 from Raghurajnager tahsil and 90 from Teonthar tahsil. At the same time, 16 villages were added to Mauganj from Bardi tahsil, old Deosar tahsil, which included most of the present Sidhi district, and, 50 villages from Huzur tahsil. The administrative system of the state was different from the present system. Prior to 1947, there were no districts. Tahsils were the unit of administration, which use to be in the charge of tahsildars.

1. The Teonthar Tahsil :

The word 'Teonthar' is derived from the combination of two words 'Teon' means Just like and 'Thar' means place. There is a Hindi couplet relating to the story about the origin of the name 'Teonthar'.

"Jhansi hai shatkul par Ganpati Trip Ko dham,
Maharaja Bakshat bhayo Teonthar garh Ko nam".

King Ganpati's palace at Jhansi is bounded by six ponds (in the river bank). The Maharaja of Delhi named his fort as Teonthar.

(xv)

Toonthar tahsil lies between $24^{\circ} 53'$ to $25^{\circ} 12'$, north latitude and $81^{\circ} 14'$ to $81^{\circ} 58'$ east longitude. Its boundary marches along with the boundary of Uttar Pradesh in the east, west and north. In the south Sirmour and Mauganj tahsils of Rewa district form the boundary. The total area of the tahsil is 1584.8 square kilometres and the number of inhabited villages is 470. The eastern part of the tahsil is flat and open while the southern portion is covered with forests. The Binjh mountain traverses the tahsil and forms the border of the Rewa plateau. The soil of the tahsil is alluvial and has more than average fertility. The slope of this tahsil is towards north east. The river Tons and its tributaries while leaving the plateau make a series of magnificent water-falls.

2. The Mauganj Tahsil :

The Mauganj tahsil lies to the east of Rewa. The headquarter of the tahsil is named after the principal Bazar in the Tahsil. It is situated on the National Highway No. 7 at a distance of 65 kilometres from Rewa and 1.6 kilometres east of mauganj. The tahsil lies 24° to $24^{\circ} 36'$ north latitude and $81^{\circ} 40'$ to $82^{\circ} 18'$ east longitude. It is bounded in the west by the Sirmour tahsil and Hazur tahsil of Rewa district in the east and north of boundary of the tahsil runs along the boundary of Uttar Pradesh, and in the south, Sidhi district makes the boundary. The total area of the tahsil is 1665.8 square kilometres and the number of inhabited villages is 834.

Though the tahsil extends to a plateau, yet the soil is in no way inferior. The drainage is towards north. The Gurma and Mahanadi with their tributaries flow towards north. The Kaimur ranges spread in the south from east to west.

3. The Jirnsur Tahsil :

Jirnsur tahsil is situated in between Jirnsur and Teonthar tahsils. This tahsil came into existence in the year 1916-1917. It is situated between $24^{\circ} 36'$ to $24^{\circ} 54'$ north latitude and $81^{\circ} 2'$ to $81^{\circ} 40'$ east longitude. In the east Mauganj tahsil, in the west Satna district, in the north Teonthar tahsil and in the south the Huzur tahsil are situated. The total area of the tahsil is 1504.5 square kilometres. The number of inhabited villages is 510. The eastern portion of the tahsil is mostly a flat and open country while there are a few forests in the north. The drainage of the tahsil is towards north and north-east due dip slope. The river Bihar make a magnificent water-fall named Chachai, which is 111 metres in height and then joins Tons. This waterfall may be used for producing electric energy and for irrigation projects. The Keoti, another water-fall on the river Mahanadi, is 99 metres in height. It has given unparalleled beauty to this place. On both sides of the valley there are projecting rocks. The soil of the tahsil is comparatively richer in fertility.

4. The Huzur tahsil :

The Huzur tahsil is so called for its having the presence with in it of the capital. The tahsil is situated

between $24^{\circ} 18'$ to $24^{\circ} 52'$ north latitude and $81^{\circ} 10'$ to $81^{\circ} 41'$ east longitude. In the north it is bounded by Mirzapur tahsil, in the south by Sidhi district, in the east by Muzanj tahsil and in the west by Jajna district. The total area of the tahsil is 1332.4 square kilometres and the inhabited villages are 482. Kaimur hills skirt the southern portion of the tahsil. The Bihar and Bichhia are main rivers. The combined waters of Bihar and Bichhia take the northerly course till they join the Tons river. At Govindgarh there is a large lake which was constructed by Raghuraj Singh in the year 1855. There are other tanks also, such as Rupsagar of Mukundpur and Rani talab of Rewa.

The author has selected Rewa district for the study of its land utilization with the firm conviction that the micro-regional studies are more fact revealing and scientific.

The district is backward, from the view point of land utilization. The potentialities of the district are extreme. Optimum use of land resources is essential.

Secondly, the methods of agriculture are traditional. The resident of the district fulfil their basic needs of life with difficulty and mostly they depend on fate.

Thirdly, erosion is another hindrance in the way of agriculture, and it is gradually decreasing cultivation.

Fourthly the author himself has been associated with farming and agriculture since birth.

BIBLIOGRAPHY

- Tomford, H. : Final Settlement Report of Rewa State.
Rent Rate Report of Binaur, Teonthar,
Mauganj and Buzur Tahsils.
Unpublished 1922-23.
- Pickson, B.T. : Guide Book to Research Data for Arid-
Zone Development.
UNESCO, Paris 1957
- Rantor, J.H. : Imperial Gazetteer of India
Oxford University Press
London 1910
- Jagathpathi, G. : District Census Hand Book of Rewa
District.
Published by the Govt. of Madhya
Pradesh, Bhopal 1964.
- Maard, C.E. : Rewa State Gazetteer
Newal Kishore Steam printing Press,
Lucknow 1907
- Pathak, Pandit R.S. : Rewa Rajya Ka Darpan
Sathna 1910
- Shrivastava, V.L. &
Aginhotri, G.R. : Rewa Rajya Ka Bhojal
Rewa 1948
- Saxena, K.M. : Rewa State Directory
Rewa 1947