

CHAPTER VIIILAND CLASSIFICATION¹

It is a rudimentary of agriculture that is practised in Rewa district. Mr. Bamford, H. I.C.S. Settlement Commissioner, Rewa State prepared a settlement report of Rewa State in the year 1929. According to this report the following settlements of various Tahsils were based on field survey. The year of various settlements are as follows.²

<u>S.No.</u>	<u>Tahsils</u>	<u>Year</u>
1	Teonthar	1883 to 1895
2	Mauganj	1884 to 1904
3	Hazur	1906 to 1915
4.	Sirmour	1916 to 1917

The main criterion was the quality of soil. Revenue depended on the favour and sweet will of ruler. Mr. Bamford tried to apply rational basis of revenue-fixation in place of prevalent favouritism, but he could not succeed.

The rulers were aware of the problem of famine, growing need of food and fibre and low yield of grains. There were no districts and Tahsil headquarters used to be

1. Readings in land utilization
The Indian Society of Agricultural Economics, Bombay 1957
2. The Rent Rate reports of Teonthar, Mauganj, Hazur and Sirmour Tahsils by Bonuford, H. I.C.S.
Settlement Commissioner, Rewa State (unpublished)

the administrative units. The land was not classified in a proper way ; consequently, the utilization of land to its optimum was a problem.

The district is rich in its land resources and natural wealth. Therefore, it requires a suitable land classification, which will go a long way in the eradication of poverty in this district.

The total area of the district is 649700 hectares according to the Survey Department of India and 628745 hectares according to village papers. As far as the land utilisation is concerned the area according to village papers is considered correct because they are co-related. The forest covers an area of 66278 hectares which is 10.54% of the total area of the district in the year 1970-71. Therefore, the utility of forests is quite considerable for the district. This head has already been dealt within a separate chapter.

LAND NOT AVAILABLE FOR CULTIVATION :

The total area under 'land not available for cultivation' is 99563 hectares or to say 15.83% of the total area. The area of 'land not available for cultivation' is larger in the south of the district.

This category of land includes two sub categories.

(i) Land put to non-agricultural uses

(ii) Barren and unculturable lands.

(i) Land put to non-agricultural uses :

TABLE LC I

Annual variation of Land put to non-agricultural uses (1961-71).

Year	Area	Area in hectares.	
		Variation + or -	Percentage of variation + or -
1961	44934	-	-
1962	44413	- 521	- 98.8
1963	49816	+ 5403	+112.1
1964	45661	- 4155	- 91.9
1965	46380	- 719	+101.5
1966	46454	+ 74	+100.1
1967	54021	+6567	+116.3
1968	53785	- 236	- 99.5
1969	48634	-5151	- 90.4
1970	49348	+ 714	+101.4
1971	52839	+3491	+107.0

SOURCE : " Annual season and crop Report" Director Land Records, Madhya Pradesh, Gwalior.

In the study year the area under this head is 52839 hectares which is 8.40% of the total area of the district. Table LC I shows that the area of this subcategory is fluctuating, but the general trend is towards increase. The writer feels it necessary to mention that the area under this head has decreased because in the primitive times farmers used to build a house in the middle of the large area, but gradually the area was reduced because of the scarcity of land.

This type of land is put to other uses than agriculture. It includes settlements, roads, railways, water bodies, cemetery, quarries, river beds etc. The area of 'land put to non-agricultural uses' is increasing gradually. It is due to the heavy pressure of population on the land. People are constructing new houses for the coming generation, which is the primary necessity of a man. The construction of roads is also responsible for the increase in area.

The lime kilns have developed due to the recent trend of urbanization. People desire to build a durable and comfortable house. The lime Kilns occupy the agricultural land on road sides, while the district is already short in food.

(ii) Barren and unculturable Lands :TABLE LC II

Annual variation of Barren and unculturable land.

(1961-71)

Area in hectares

Year	Area	Variation + or -	Percentage of variation + or -
1961	35613	-	-
1962	35200	- 413	- 98.8
1963	39322	+ 4122	+111.7
1964	49706	+10384	+126.4
1965	41533	-8173	- 83.5
1966	40309	-1224	- 97.0
1967	45089	+4780	+111.8
1968	45390	+ 301	+100.7
1969	46001	+ 611	+101.3
1970	47063	+1062	+102.3
1971	46724	- 339	- 99.3

SOURCE : " Annual Season and crop Report" Director Land
Records, Madhya Pradesh, Gwalior.

'The barren and unculturable land' covers an area of 46724 hectares in the district. It is 7.43% of the total area in the study year 1970-71. Table LC II clearly indicates that the area under this head is increasing as running water in the rainy season is allowed to wash away the soil.

This type of land is situated on the Kaimur and Binjh ranges. It includes the hill slopes, plateau slopes, ravines and the naked hard rocks lying unsystematically. On account of erosion the top soil has been washed away, therefore, the hard rocks are visible on the surface. The vegetation has followed the soil. The low water table, hard and rocky strata and the meagre underground water do not allow for the reclamation of this barren land for agricultural purposes. The afforestation and the extension of irrigational facilities may help in recouping this land. There is no demarcation boundary as far as the distribution of barren and unculturable land is concerned; it is bound in all the Tahsils with varying extent.

OTHER CULTIVABLE LANDS :

- (1) Permanent Pasture and other grazing lands.
- (ii) Land under miscellaneous tree crops and groves.
- (i) Permanent Pasture and other grazing lands :

TABLE IC XII

Annual variation in permanent pasture and other grazing lands.

(1961-71)

Area in hectares.

Year	Area	Variation + or -	Percentage of Variation + or -
1961	49438	-	-
1962	48863	- 575	- 98.8
1963	29451	- 19412	- 60.3
1964	24855	- 4596	- 84.4
1965	36394	+ 11539	+146.4
1966	41729	+ 5335	+114.7
1967	34416	- 7313	- 82.4
1968	33644	- 772	- 97.7
1969	35298	+ 1654	+104.9
1970	33307	- 2991	- 94.3
1971	33991	+ 684	+102.0

SOURCE : " Annual season and crop Report " Director Land Records, Madhya Pradesh, Gwalior.

The total area of permanent pasture and other grazing lands in the district is 33991 hectares, comprising 5.40% of the reported area of the district in the study year. Table LC III shows that the area under this head is decreasing gradually. The land under this head is already short for cattle feeding. Any further reclamation will do injustice to the animals. The writer feels that the land from this head which has already been taken under the plough, should be utilized for animal fodder.

The grasses are found in this land in rainy season for grazing. This land is the Government property, hence nobody takes care of its well being. The grass is seldom allowed to grow well. After the rainy season either the grass is dried up or eaten up haphazardly. The area under this head is unevenly distributed in the district. The Binjh and Kaimur ranges are the important areas of grass which are utilized for animal grazing.

Overgrazing must be checked. The size of grazing land should be accurately determined together with the quality of grass it produces annually. Once it is done, number of cattle which may be allowed on it, may be determined.

In the area where grasses grow, cattle should not be allowed to graze. To cut grasses at least twice during the rainy season is a much better practice.

In the forest area the grazing should be regulated properly. Trees like *Acacia arabica* be planted all round the grassland area. This will serve dual purpose i.e. it will provide fuel and timber to the villagers and may be used for fencing.

The animals should not be allowed to graze at the early stage as they crush the grass buds from their feet.

PASTURE AND LIVESTOCKS :

The total livestock population of the district in the year 1970-71 is 239957 and grazing area is 33991 hectares, therefore, roughly one hectare of grazing land is shared by six animals. A cattle requires 1.5 hectare of pasture land for sufficient grazing throughout the year. The dearth of natural pasture has forced the people to feed milk giving cattle and agriculture field working cattle at home from green fodder, stalk of Jowar and Bajra and the straw of wheat, barley grass etc. Cattles are also

driven along the sides of water bodies and roadsides, where vegetation continues to survive even during the dry months. The lack of pasture and fodder for cattle effect the health, breed of the cattle and the milking capacity of animals. Almost in all the Tahsils the indigeneous breed is found. They are short in stature and weak in constitution and their capacity to work in the agriculture fields is limited. In Tecnther Tahsil a few Maryena cows and Murra buffaloes are found.

The animal husbandary is mostly confined to the farmers in a most rudimentary condition. These farmers misuse the pasture lands in other ways than grazing. It is observed at the time of field survey that people do not care to improve the land or allow the grass to attain its full growth. Much of the grass that does grow is trampled down and wasted by cattle, who roam about in search of best grasses.

(11) Land under Miscellaneous tree crops and Groves.

Orchards, groves and gardens occupy a negligible area of the district. The total area under miscellaneous tree crops and groves is 1869 hectares that is 0.29% of the total area of the district in the study year. Table LC IV reveals that the area under this head is decreasing

TABLE IC IV

Annual variation in land under miscellaneous tree
crops and groves.

(1961-71)

Area in hectares.

Year	Area	Variation + or -	Percentage of Variation + or -
1961	5798	-	-
1962	5729	- 69	- 98.8
1963	9105	+3376	-158.6
1964	4914	-4191	- 53.9
1965	5399	+ 485	+109.8
1966	4170	-1229	- 77.4
1967	3361	- 809	- 80.6
1968	2945	- 416	- 87.6
1969	2582	- 363	- 87.6
1970	2272	- 310	- 87.9
1971	1869	- 403	- 82.2

SOURCE : * Annual Season and crop Report * Director Land
Records, Madhya Pradesh, Gwalior.

gradually every year; it is because cultivators are taking this land under plough as they do not give so much of return as cereals. This practice is very harmful in the long run and may have an adverse effect on rainfall.

The allotment of fields for the purpose of orchards, groves and gardens depends largely on the availability of water for irrigation. Consequently, the groves are generally found on the stream banks, near Bandha, the tank sites and other places as chosen by the old princely rulers. Beside these well planned gardens, the rest of the area is under village groves, which is mostly near the wells. The farmers plant some fruit giving trees near their houses or in kitchen gardens.

CULTURABLE WASTE LANDS :

'The culturable waste land' may be defined as the land which is fit for cultivation, but cultivation is not practised. It includes all the fallow land which is not utilized for more than five years. The culturable waste land in Rewa district is 18760 hectares or 2.98% of the total area or 5.22% of the total area sown in the study year 1970-71. Table LC V reveals that the area under culturable waste is decreasing; it is because of growing

TABLE LC V

Annual variation in culturable waste lands.

(1961-71)

Area in hectares.

Year	Area	Variation + or -	Percentage of variation + or -
1961	41894	-	-
1962	41409	- 485	- 98.8
1963	13499	-27910	- 32.6
1964	27372	+13873	+202.7
1965	28442	+ 1070	+103.9
1966	24815	- 3627	- 87.2
1967	20905	- 3910	- 84.2
1968	22931	+ 2086	+109.9
1969	25118	+3127	+113.6
1970	23010	-2108	-91.6
1971	18760	-4250	- 81.5

SOURCE : "Annual Season and crop Report" Director Land
Records, Madhya Pradesh, Gwalior.

pressure of population and high prices of agricultural produce.

The Land Records office of the Rewa district is of the opinion that 60% of the total culturable waste land can be brought under cultivation with the help of the country plough, manual and cattle labour. Tractorisation would be needed in about 15% area and the remaining land requires levelling and bunding etc.

There are several reasons why this culturable waste land remained uncultivated. Some of the important reasons are given below. First, the low productivity of soil is of paramount significance. Secondly, the lack of initiative on the part of farmers due to their poor condition. Thirdly, the damage of crops by wild animals, soil erosion, lack of irrigational facilities are the other important reasons for the development of culturable waste land.

The culturable waste land should be reclaimed either by the state or it should be allotted to landless agricultural labourers. The land must be reclaimed within a specific period of time. Government may give the financial and technical assistance to these farmers if need be.

(111)

TABLE LC VI

Annual Variation in current fallow land.

(1961-71)

Area in hectares.

Year	Area	Variation + or -	Percentage of Variation * + or -
1961	27166	-	-
1962	26714	- 452	- 98.3
1963	26532	- 182	- 99.3
1964	26852	+ 319	+101.2
1965	22147	-4704	- 82.5
1966	43180	+21033	+149.8
1967	28809	-14371	- 66.7
1968	23044	- 3765	- 79.9
1969	22934	- 110	- 99.6
1970	15803	- 7131	- 68.8
1971	29011	+ 5108	+ 132.3

SOURCE : " Annual Season and crop Report "Director Land
Records, Madhya Pradesh, Gwalior.

FALLOW LAND :

(1) Current Fallow

(11) Old Fallow

(1) Current Fallow :

The term 'current fallow' means the fallow land on which cultivation is suspended for one year.

In the study year the area under current fallow land is 20911 hectares which is 3.32% of the total area. Table LC VI indicates that during a period of seven years there is gradual decrease in area and only in three years the area has increased either due to drought or heavy rains.

The awakening about the importance of irrigation in the district has also reduced the area under this head

(II) OLD FALLOW :

The area under 'old fallow' in the study year is 28235 hectares or to say 4.49% of the total area of the district. Table LC VII reveals that the area under this head has decreased in seven years, therefore, it is concluded that the area of 'old fallow' land is decreasing.

TABLE LC VII

Annual variation of old fallow Land.

(1961-71)

Area in hectares

Year	Area	Variation + or -	Percentage of Variation + or -
1961	51059	-	-
1962	50467	- 592	- 98.8
1963	40012	-10455	- 79.2
1964	35104	- 4908	- 87.9
1965	32688	- 2416	- 93.9
1966	37315	+ 4627	+114.1
1967	44277	+ 6962	+118.7
1968	40995	- 3282	- 92.6
1969	28546	-12449	- 69.8
1970	29991	+ 1445	+ 105.0
1971	28235	- 1756	- 94.1

SOURCE : "Annual Season and crop Report"

Director Land Records, Madhya Pradesh, Gwalior.

The 'old fallow' land is defined as a piece of cultivated land which remains uncultivated for more than one year and less than five years. The area under this head is largely determined by the poor quality of soil. The normal practice of providing rest to the soil for two or three years in those lands, where soil is less productive. This period of rest automatically restores fertility to the soil, therefore, it is essential from the view point of long term productivity, to leave the fields fallow. If the rainfall is normal, the span of cropping is reduced otherwise vice-versa. Faucity of manures and mismanagement are also responsible for fallow land.

AREA SOWN :

- (i) Net area sown.
- (ii) Double cropped area.
- (iii) Cross cropped area.

(i) NET AREA SOWN :

The term 'net area sown' refers to the area on which actual sowing is done in a particular year. Such an area in Rewa district is 359138 hectares or 57.12% of the total area of the district in the study year. Table LC VIII shows that in six years the area under this head has

TABLE IC VIII

Annual variation in Net Area sown.

(1961-71)

Area in hectares.

Year	Area	Variation + or -	Percentage of variation + or -
1961	337793	-	-
1962	333878	-3915	-98.8
1963	341461	+7583	+102.2
1964	340745	- 716	- 99.8
1965	349243	+8498	+102.4
1966	324235	-25008	- 92.8
1967	331329	+7094	+102.1
1968	339649	+8321	+102.5
1969	343330	+3681	+101.0
1970	361649	+18319	-105.3
1971	359138	-2511	- 99.3

SOURCE : "Annual season and crop Report" District Land Records, Madhya Pradesh, Gwalior.

increased which clearly reveals the fact that the area under 'net area sown' is increasing. The reduction in the remaining years is due to the drought or heavy rains.

It is thus clear why there is so much shortage of food in the district. Since the net area sown is the most important category of land from the view point of its utilization, it needs careful planning so that productivity could be enhanced in order to meet the food requirements of the people.

The texture of the soil, the deep water table, lack of irrigational facilities, the meagre rainfall and the uneven land etc. do not permit this land for intensive agriculture.

The fluctuations in the 'net area sown' are chiefly due to the variability of rainfall. In the year 1965-66, when drought conditions prevailed throughout India, Rewa District also witnessed, considerable decrease in cultivated area as moisture in the soil was deficient every where, which did not permit sowing in 'rabi' season. It is concluded that net area sown is influenced accordingly by the nature of rainfall.

TABLE IC IX

Annual variation in Double cropped lands.

(1961-71)

Area in hectares			
Year	Area	Variation + or -	Percentage of variation + or -
1961	79662	-	-
1962	78739	-623	- 98.8
1963	71492	-7247	- 91.8
1964	66810	-4682	- 93.4
1965	30886	-36124	- 45.9
1966	25069	-5617	- 81.7
1967	44170	+19101	+176.1
1968	58833	+14663	+133.1
1969	41464	-17369	- 70.5
1970	43912	+2448	+105.9
1971	67341	+23429	+153.3

SOURCE : 'Annual Season and Crop Report'

Director Land Records, Madhya Pradesh, Bhopal.

The area sown more than once or double cropped area is very limited i.e. 67341 hectares which is 19.87% of the net area sown and 10.71% of the reported area of the district. The former figure appears to be satisfactory due to the continual red-gram crop. Table LC IX shows that the area under this head is not increasing satisfactorily, because the irrigational facilities are not running parallel to the growing needs of production.

Area sown more than once is entirely dependent on facilities of irrigation. In the study year only 1.41% of the net area sown is irrigated. This is far below the national and state average percentage of irrigation. If the irrigational facilities are provided the area of double cropping may be expanded in the district. In the Beonther Tahsil where the land is flat, irrigation canals connected with the perennial river Tons may be constructed and Tube-wells may be dug. In remaining three Tahsils, either small dams may be erected or wells with deep water table may be energised so that irrigation could be done by them.

(111) GROSS CROPPED AREA :

Net area sown and area sown more than once constitute the gross cropped area. Taking the gross production in view the gross area is the correct base. This area has a tendency to

TABLE IC X

Annual variation in Total cropped area.

(1961-71)

Area in hectares.

Year	Area	Variation + or -	Percentage of Variation • or -
1961	417455	-	-
1962	412620	- 4835	- 98.8
1963	412953	+ 333	+100.8
1964	407556	- 5397	- 98.6
1965	425960	+ 18404	+104.5
1966	349304	- 76656	- 82.0
1967	375499	+ 26195	+107.5
1968	398482	+ 22983	+106.1
1969	384794	- 13688	- 96.5
1970	372263	- 12531	- 96.7
1971	426479	+ 54216	+114.5

SOURCE : "Annual Season and crop Report"

Director Land Records Madhya Pradesh, Gwalior.

increase, depending on the increase in the net sown area and the area sown more than once. Much of the gross cropped area is given to food crops.

Out of the total cultivated area of 426479 hectares, much of the cultivated area is given to food crops. In 'kharif' season cereals occupy 204273 hectares of land or 47.92% of the gross cropped area. The non-cereals are sown in 6532 hectares which is 1.51% of the gross cropped area. In 'rabi' season cereals are sown in 174413 hectares or 40.89% of the gross cropped area. The non-cereals occupy 41261 hectares of land which is 9.68% of the total cropped area.

It is concluded from these figures that cereals are sown in 88.31% of the gross cropped area. This is because the compelling need of enough food grains for the whole year. The area of non-cereals is 11.19% of gross cropped area in the study year. The area under 'kharif' season is almost negligible but in 'rabi' season linseed is the main non-cereal. This is inspite of the fact that non-cereals fetch more money than the cereals. Table IC X shows that the increase of the area under this head is gradual but slow.

The author feels that production can be increased by expanding cultivated area through reclamation of the culturable waste land, which does not require much operational

cost. Although the land under forest and pasture also need protection from encroachment of agricultural use but since the net area sown is increasing, it can be said that further expansion is possible. The reclamation of pasture land will serve the dual purpose, first it will grow in yield and secondly the sticks and straw may be used as fodder.

Intensification of agriculture is the more practicable solution for increasing the production in the district. Bunding, levelling, manuring and providing irrigational facilities are the prime necessity for the same. The use of fertilizers, insecticides and hybrid seeds and rotation of crops are the other necessities to increase the productivity.

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