

**Part V.**  
**CHAPTER XXI.**  
**AREAS.**

503. In the foregoing Chapters, especially in the second, third and fourth, something has been said as to the areas of the Survey and settlement areas. districts of Orissa; in this Chapter I propose to discuss at greater length the figures of area found in the Settlement records.

From the statements supplied by the Surveyor-General I abstract the following:—

DISTRICT.	Total area in square miles.	CADASTRALLY SURVEYED.			TOPOGRAPHICALLY SURVEYED.	
		Scale 64"	Scale 32"	Scale 16"	Scale 4"	Scale 2"
Cuttack.	3,522	6	364	2,412	8	660
Balasore.	2,088	0	7	1,858	19	33
Puri.	2,475	0	993	1,026	0	456
<b>Total....</b>	<b>8,085</b>	<b>6</b>	<b>1,364</b>	<b>5,296</b>	<b>270</b>	<b>1,149</b>

In the present settlement, figures have been compiled for a portion only of the Province, but deducting the areas of Banki, Kujang and Kanika which have been separately cadastrally surveyed, and of the topographically surveyed Parganas, also of 57 square miles in Killa Darpan and part of the *jagir* mahals of Majud cadastrally surveyed but subsequently excluded from the present settlement, the figures should agree with the village totals shown in the *milan khasras*.

Area in square miles.	Cuttack.	Balasore.	Puri.
Total by Survey	3,522	2,088	2,475
Deduct—Topographical Survey.	740	223	456
Deduct—Cadastrally Surveyed areas—Kujang, Kanika and Banki	496	141	...
Deduct—Darpan, Andhari and Manikpatna	57	..	48
Nett areas as per survey	2,229	1,724	1,971
Area by <i>milan khasra</i>	2,194	1,712	1,991
Difference	35	12	20

In Cuttack there has been an obvious error in the survey figures, for Kanika has, according to the completion report, an area of 265 square miles, of which 151 are cadastrally surveyed, while in making up his total of 3,522 square miles the Surveyor-General has taken the total area as 219 square miles, of which only 139 are shown as cadastrally surveyed. Again, in the case of Kujang, he has omitted an area of 142 square miles surveyed on the scale of 4"=1 mile. This, however, is far from accounting for the discrepancy in the figures, and indeed raises the difference to 47 square miles. I can only suggest that in the survey figures some areas have been shown twice. The correct area of Cuttack is, according to the settlement returns, 3,663 square miles, of which 2,747 have been cadastrally surveyed and 2,194 are dealt with in this report.

In Balasore also the Surveyor-General's area of Kanika appears to be wrong, but the discrepancy cannot be reconciled.

The correct area of the district appears to be 2,075 square miles, of which 1,935 have been cadastrally surveyed and 1,712 are dealt with in this report.

In Puri there has been some confusion as to the Bengal and Madras boundary, and the correction of this line has probably altered the survey areas.

The correct area appears to be 2,499 square miles, out of which 1,528 only are in the Sadar Subdivision, and out of these, 310 square miles of the Chilka and 194 square miles of permanently-settled estates are excluded from settlement, leaving a balance of only 1,024 square miles, including 42 square miles belonging to the Khurda killa.

504. In this settlement figures have been compiled from two sources; in the *milan khasras* we have the totals of the *khasras* village by village, and from the completion reports the totals of the areas of the temporarily-settled estates have been obtained.

From these latter are excluded lands permanently settled and revenue-free, as well as lands held by Government for public purposes; and some further adjustment is necessary owing to estates having lands in districts other than that to which they pay revenue, *i e.*, both Puri and Balasore estates have lands in Cuttack, and some Cuttack estates have lands in Puri and Balasore.

In the following statement, I have endeavoured to reconcile the two sets of figures :—

Areas in square mile.	Cuttack.	Balasore.	Puri.
Total milan <i>khasra</i> ... ..	2,194	1,712	1,024*
<i>Deduct</i>			
Area permanently settled. ... ..	135	Nil	10 †
Area revenue free ... ..	209	170	145
Area of Khurda and <i>ekhrajat</i> lands in the Sadar Subdivision of Puri ... ..	...	...	42
Lands held by Government for public purposes ... ..	36	21	6
Lands transferred to estates of other districts	17	33	5
Nett balance of temporarily settled estates ... ..	1,797	1,488	816
Add lands lying in adjoining district ... ..	38	12	5
<b>Total</b>	<b>1,835</b>	<b>1,500</b>	<b>821</b>
Area of estate as shown in Completion Report ... ..	1,833	1,499	818

It is almost impossible to account for this discrepancy (.014 per cent.) without a complete re-totalling of the areas of every village. Some mistakes are certain to have occurred in totalling *khattans* and *khasras* and in spite of the care taken to reconcile the two sets of figures it was impossible to prevent *muharrirs* from fudging, with the inevitable result that the error came out when the figures were re-totalled in another form for the whole Province. I do not think that there are any areas, at least in Cuttack and Balasore, which have escaped assessment; but it is possible that some of the river beds in Cuttack and of the sandy wastes along the shore of Puri may have been omitted. Another possible source of error is the area of the revenue-free lands. It was found after the reconciliation of the total areas was begun, that several large revenue-free villages had been omitted from the Puri registers, and it may be that even now the areas entered in the register do not always agree with the areas in the *khasra*. On the whole, though, I am of opinion that the discrepancies are most probably due to errors in totalling the *milan khasras*. In Balasore the discrepancy curiously coincides with the difference between the areas of the lands transferred from that district to Cuttack and *vice versa*, as now ascertained and the areas at first reported, and it appears probable that some lands actually situated in Cuttack but belonging to Balasore villages have been erroneously included in the *milan khasras* of that district.

505. The most natural comparison to make in order to ascertain the extension of cultivation since the last settlement would be that of the past and present cultivated area of the villages of the temporarily-settled Parganas, but unfortunately complete figures for the cultivated area at the last settlement are only to be had from the survey records and do not appear to be very trustworthy. Furthermore we have only got them for the Balasore and Puri districts and not for the whole of Cuttack.

Another method of finding out the extension of cultivation is to compare the cultivated or assessed areas of the temporarily settled estates only, and for this purpose we have complete and reliable figures for the whole Province.

There is also statement of the cultivated and uncultivated areas of the temporarily-settled estates in the Appendix to Mr. Commissioner Gouldsbury's

\* Sadar Subdivision only. † Included in *tauzi* No. 251.

Completion Report of the last settlement, \* but I do not think the figures are quite trustworthy. Comparing them with the areas assessed and unassessed at last settlement shown in our Completion Reports we get the following results :—

DISTRICT.	AREA IN ACRES ACCORDING TO MR. GOULDSBURY'S STATEMENT.		AREA IN ACRES ACCORDING TO COMPLETION REPORT OF THE PRESENT SETTLEMENT.	
	Cultivated	Uncultivated.	Assessed	Unassessed.
Cuttack ....	584,015	540,731	621,000	553,900
Puri ....	448,497	468,532	302,400	196,700
Balasure ....	464,763	107,943	493,600	449,200

The figures for Puri probably include Khurda, but in the other districts it is clear that the areas are incomplete, and I do not think they can form a basis for any sound inference.

That the proportion of area assessed represents approximately the proportion of area of the whole Pargana cultivated is evident from the following statement taken for a few Parganas at random :—

District.	Parganas.	Percentage of area cultivated as shown in <i>milan khasra</i> .	Percentage of area assessed as shown in completion report.
Cuttack. ....	Ahyas ....	80	81
	Jajpur ....	74	76
	Katya ....	80	84
	Sungra ....	80	82
	Asureshwar ....	81	82
	Balubisi ....	69	69
	Hariharpur ...	78	80
	Kate. ....	69	61
	Total of District.	69	70
Puri ....	Kotdes ....	79	79
	Chaubiskud ....	58	55
	Kotrahang ....	82	83
	Purabduai ....	79	75
	Oldhar ....	46	37
	Total of District.	71	71
Balasure....	Bisalkhand ....	82	97
	Sunbat ....	70	75
	Kamardachaur ....	83	85
	Dasmalang ....	31	29
	Sahabandar ....	51	68
	Rautara ....	58	61
	Total of District.	71	72

By adding to the assessed area the figures for *jagir* and *minha* and deducting to uncultivated lands, if any, within the assessed tenures we should get the cultivated area of the estates more exactly; but the assessed area on the whole represents with sufficient accuracy the proportion under cultivation in the Pargana. In Balasure Mr. Kingsford adjusting the figures in this way, found the cultivated area of the temporarily-settled estates to be 521,300 acres, or 55 per cent. of the whole; while the assessed area was only 493,600 acres, or 52 per cent. The former figure does not, however, allow for uncultivated homesteads and small plots of fallow in raiyati holdings, so that 52 per cent. is probably more nearly correct.

\* Printed at page Clxil of Mr. Toynbee's History of Orissa.

Taking the totals for the three districts we find the change in the percentages of the areas assessed and cultivated to be as follows :—

DISTRICT.	LAST SETTLEMENT.		PRESENT SETTLEMENT.		DIFFERENCE	
	Percentage of total area shown in the revenue survey statements as cultivated.	Percentage of temporarily settled area assessed.	Percentage of total area cultivated as per Milan khasra.	Percentage of temporarily settled area assessed.	Columns 3 & 4.	Columns 3 & 5.
Cuttack ...	...	53	69	70	...	17
Puri ...	55	60	71	71	16	11
Balasore ...	53	52	71	72	18	20

The variation in the percentage of area under cultivation at last settlement as shown in the revenue survey statements is very remarkable, the proportion ranging in Puri from 7 per cent. (Oldhar) to 74 per cent. (Banchas), while the settlement figures give a maximum variation in the proportion of assessed to total area between 32 per cent. in West Athaisi and Matkatpatna, and 74 per cent. in Kotrahang. Again, comparing the revenue survey statements with the *milan khasras* we find the increase in cultivated area during the term of settlement to vary from 3 per cent. in Astrang to 550 per cent. in Oldhar; while, according to the settlement figures, the increase in area assessed varies from 13 per cent. in Rahang to 38 per cent. in Kodhar. I think therefore that the revenue survey figures of Puri are untrustworthy, and that our conclusions must be based on the figures showing assessed area.

In Balasore also the variation in the survey figures is very great, and I think settlement figures give a safer basis for our conclusions, but the difference is not so great as in Puri.

Taking then the settlement figures, the approximate increase in assessed and cultivated area is as follows :—

DISTRICT.	ASSESSED AREA OF ESTATE-ACRES			CULTIVATED AREA OF TEMPORARILY SETTLED PARGAFAS-ACRES.		
	Last Settlement	Present Settlement.	Increase percent.	Last Settlement.	Present Settlement.	Increase percent.
Cuttack ...	621,000	822,500	32	697,000	920,000	32
Puri ...	302,400	373,300	23	377,000	464,000	23
Balasore ...	493,200	692,200	40	554,000	776,000	40
Total ...	1,416,600	1,888,000	33½	1,628,000	2,160,000	33½

The comparatively small increase in Puri is due to the smaller area of culturable land available, while in Balasore, on the other hand, a large area had, at the beginning of the last settlement, been thrown out of cultivation owing to the disastrous cyclones of 1831-32, and has naturally been again cultivated as the country has recovered.

The proportion of the total area now under cultivation is the same in Balasore and Puri and rather more in either than in Cuttack; but this is due chiefly to the larger area of rivers and sand in Cuttack and Puri, the population being sparser and cultivation less advanced in Balasore than in the other two districts.

The accompanying maps VI, VII and VIII will show at a glance which are the most highly cultivated portions of the districts.

Extension of cultivation in the future. 596. The culturable area in acres in the three districts as shown in the *Milan khasras* consists of the following :—

DISTRICT.	New fallow.	Old fallow.	Thatching grass.	Jungle.	Percentage on total area.
Cuttack ...	31,326	24,384	1,394	10,745	4.86
Puri ...	9,792	14,302	399	9,196	4.85
Balasore ...	18,758	55,036	1,007	6,978	7.46
Total ...	59,876	93,722	3,300	26,919	5.86

Not all of this, however, is at present available. Some part of the jungle and fallow has been set apart for grazing, and the thatching grass is a necessity.

On the other hand, there can be no doubt that some of the waste lands, of which there are nearly 215,000 acres in Cuttack, 164,000 in Balasore and 10,000 in Puri, could, a certain expenditure, be reclaimed with and the amount thus made available will more than balance any area within the so called culturable lands which cannot be broken up,

At present cultivation is extending most rapidly in Balasore and in north-east Cuttack. A large area is available for cultivation in south-west Cuttack, but the soil is very poor.

In Puri there is but little extension of cultivation, the lands still unreclaimed being for the most part inferior, or so liable to inundation as not to repay the risk of loss of crops.

507. The following statement shows: Thana by Thana the numbers of villages for which figures are available and their average area in acres:—

DISTRICT.	Thana.	NUMBER OF VILLAGES IN Milan Khasra		Area by Milan Khasra.	Average area of village.
		For which area is given.	For which area is not given		
Cuttack.....	Dharamsala ...	720	586	213,792	297
	Cuttack ...	416	23	170,752	411
	Jagatsing— pur ...	794	...	235,731	297
	Tirtol ...	490	326	106,658	218
	Salepur ...	699	...	193,213	276
	Kendrapara ...	541	120	149,539	276
	Patamundai ...	225	169	85,178	379
	Aul ...	77	476	38,946	506
	Jajpur ...	703	...	209,824	298
	<b>Total</b> ...	<b>4,665</b>	<b>1,700</b>	<b>1,403,633</b>	<b>301</b>
Balasore.	Bhadrak ...	546	...	184,688	338
	Dhamanagar ...	433	...	147,785	341
	Basudebpur ...	247	...	121,018	489
	Chandbali ...	67	...	26,244	391
	Soro ...	884	291	295,624	289
	Balasore ...	563	...	145,534	260
	Basta ...	386	...	98,390	254
	Baliapal ...	465	392	115,028	247
	Jaleswar ...	16	...	1,467	91
<b>Total</b> ...	<b>3,607</b>	<b>683</b>	<b>1,095,778</b>	<b>304</b>	
Puri.....	{ Puri ...	677	125	260,428	386
	{ Pipli ...	704	...	212,246	270
	{ Gope ...	555	59	183,103	330
	<b>Total</b> ...	<b>2,026</b>	<b>189</b>	<b>1,655,777</b>	<b>324</b>

508. The average area of a holding in each of the three districts is shown in the following table:—

	AVERAGE AREA OF A HOLDING IN ACRES			
Size of holding.	Orissa.	Cuttack	Puri	Balasore.
1. <i>Kharida jamabandi</i>	1.76	1.33	2.36	4.41
2. <i>Kamilbazyafti</i>	1.09	0.79	1.21	1.60
3. <i>Nisfi bazyafti</i> ...	1.27	0.96	1.63	1.62
4. <i>Thani</i> ...	1.61	1.62	1.57	1.75
5. <i>Thani pahi</i> ...	4.25	4.17	3.89	4.56
6. <i>Occupancy</i> ...	1.02	1.21	1.38	1.61
7. <i>Non-occupancy</i> ...	1.07	0.80	1.04	1.34
8. <i>Chandina</i> ...	.22	0.21	0.14	0.27
9. <i>Chaukidari jagir</i> ...	1467	1.39	1.22	2.88
10. <i>Other jagir</i> ...	0.27	1.90	3.28	3.56
11. <i>Nijchas</i> ...	3.47	3.20	3.27	4.40

These figures must not be taken to represent the average area on which a family depend for their support, but as showing the average area of one class of tenure held by one tenant in one village under one landlord.

The figures bring out, as might be expected, two facts of interest. The first, that holdings average largest in Balasore where land is plentiful and rents light, and are smallest in Cuttack where rents are high and where there is much valuable irrigated and protected land. The difference is also due to the much larger number of petty estates in Cuttack than in the other districts holdings being smallest of all in north Cuttack where partition has been carried to absurd lengths. In Puri, land, at least good land, is as scarce as in Cuttack, but there are fewer estates in each village, and the soil is generally inferior and crops more precarious. The second fact of interest is that the *thani-pahi* class embrace the well-to-do raiyats with large holdings, and that after them the *kharida jamabandi* tenureholders often the same persons as the *thani* raiyats—hold the next largest areas. This result agrees with the general experience of Assistant Settlement Officers, who found the *thani-pahi* holdings to contain, as a rule, the best lands in the village and to be held by substantial raiyats.

509. Accurate statistics to show the size of holdings at the last settlement could be compiled from the *bhians* and *warijas* rent rolls and *khatians* of the last settlement, but it would hardly repay the expense and labour involved. For the resumed tenures and for *thani* and *chandina* raiyats, figures, more or less accurate, are to be found in the accounts of Orissa tenures, from which I abstract the following comparative statements —

CLASS OF TENURE	AVERAGE AREA IN ACRES IN—					
	CUTTACK		PURI		BALASORE*	
	Last Settlement.	Present settlement.	Last settlement.	Present settlement.	Last settlement.	Present settlement.
<i>Kharida jamabandi</i>	2.6	1.3	6.7	2.9	12.3	4.4
<i>Bazyafti</i> ....	1.3	0.9	Not available	1.6	2.7	1.7
<i>Thani</i> ....	4.3	2.7 †	Ditto	2.5 †	3.2	3.9
<i>Chandina</i> ....	0.3	0.2	Ditto	0.1	0.8	0.3
Total	....	1.3	1.1 †	1.8	2.4	1.8

It is clear that there has been much subdivision of holdings, and think it would probably be safe to say that the average size was at the last settlement between half as much again and twice what it now is.

510. Within the holding the next small unit is the field, that is all the land of one class held under a single tenure and contained within one continuous boundary. The average area of such fields, including fields of waste lands and excluding *thani* is shown in the following statement Thana by Thana:—

DISTRICT AND THANA	AREA, (ACRES)		Number of fields.	AVERAGE AREA OF FIELD (ACRES)	
	Cultivated.	Uncultivated.		Including waste.	Cultivated fields only.
<i>Cuttack</i>					
Dharmasala ....	1,33,399	80,452	5,10,554	.42	.26
Cuttack ....	74,772	96,026	3,62,915	.47	.26
Jagatsingpur ....	1,75,737	60,072	8,67,111	.27	.20
Tirtol ....	74,160	32,521	2,42,916	.44	.30
Salepur ....	1,41,374	51,838	7,10,829	.29	.19
Kendrapara ....	1,18,859	30,645	4,38,168	.34	.27
Patamundai ....	68,033	17,143	1,56,768	.54	.43
Aul ....	27,958	10,994	71,852	.54	.39
Jajpur ....	1,61,306	48,518	7,31,946	.29	.22
Total	9,75,598	4,28,209	40,93,059	.34	.23

\* Appendix U to Mr. Kingsford's Report on Balasore.

† Paragraph 18 of Babu Nandakishore Das' Report on the Puri Tenures. The estimated number of holdings 280,089 must be too large, as it exceeds the present number.

‡ Average of *thani* and *thani-pahi*.

DISTRICT AND THANA,	AREA, (ACRE)		Number of fields.	AVERAGE AREA OF FIELD (Acres)	
	Cultivated	Uncultivated,		Including waste,	Cultivated fields only.
<i>Balasore</i>					
Bhadrak ....	2,24,638	70,503	7,09,233	.41	.31
Basudebpur ....	83,156	39,134	2,06,722	.58	.42
Basta ....	59,338	39,457	1,63,723	.63	.36
Jaleswar ....	733	268	2,732	.36	.26
Chandbali ....	33,546	11,934	93,866	.48	.35
Balasore ....	79,405	54,425	2,36,904	.56	.33
Dhamnagar ....	33,569	10,024	1,20,833	.36	.28
Soro ....	1,88,141	50,677	4,74,278	.51	.39
Baliapal ....	74,455	33,379	2,22,649	.48	.33
Total ....	7,76,981	3,09,801	22,30,940	.48	.34
<i>Puri</i>					
Puri ....	4,63,802	1,87,490	22,11,812	.29	.20
Pipli ....					
Gope ....					