Public Works (1897) Department.

G.O., No. 729 I

DATED 6th August 97

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[Despatch Abstract.]

Kurnool-Cuddapah Canal. Pros:,
Revenue Department, recording Board's
Pros: submitting to Govt. report of the
Special Deputy Collector —— for the
half year ending 31st December 1896, recorded.

Dr

Rc
689

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5,000—30-11-96.]

Indexed. 9/8

BACK PAPERS.

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Public works (1897) Department.

Current No: 7309

Government {1897} of Madras.

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1897
2877/97 **Kurnool-Cuddapah Canal.**

Recording Board's Proceedings submitting to Government report of the Special Deputy Collector, —, for the half-year ending 31st December 1896.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 14th May 1897, No. 368 :—

Read—the following letter from M.R.Ry. K. SUBBARAYUDU PANTULU Garu, Rao Bahadur, Canal Special Deputy Collector, to the Secretary to the Commissioner of R.S., L.R. and Agri. (through the Collectors of Kurnool and Cuddapah), dated Padidempad, 15th February 1897, No. 25 and Endorsements thereon by the Collectors of Kurnool and Cuddapah, dated 26th and 27th February 1897, respectively :—

Referring to the latter part of paragraph 3 of G.O., No. 964, Revenue, dated 7th November 1893, communicated with B.P., dated 16th February 1894, No. 87, I have the honour to submit the following report for the half-year ending 31st December last.

Movements of the Special officer during the half year.

2. From the beginning of July till about the first week of October last, I was engaged mainly in the preparation of the preliminary lists of canal-commanded lands (*a*) to be permanently transferred to wet and (*b*) fit to be recommended for imposition of the famine insurance rate at the next re-settlement, the said lists having been required by the Public Works Department in connection with paragraph 4 of G.O., No. 18, Revenue, dated 18th January 1896; and, as scarcity of water for the standing wet crops of the Cuddapah district depending on the canal began to be felt in the lower reaches of the canal in consequence of the ryots of the higher up canal taluks of the Kurnool district having simultaneously rushed in for canal water for their dry crops seeing the north-east monsoon fail, I was, for a month from about the middle of October last, chiefly engaged (*a*) in arranging with the Public Works Department officers in charge of the canal for the due regulation of water between the two districts so that the standing wet crops of the Cuddapah district might not be lost, and (*b*) in looking after the distribution of water under important common distributaries especially in the upper sub-division so that the ryots of higher up villages might not take undue advantage of their favourable situation to the detriment of standing wet and other crops in the lower down villages, as the ryots of different villages under all such common distributaries were found to be constantly disputing at the time. Towards the end of November, there was fortunately some light rainfall, and, with this, the rush for water for dry crops in the Kurnool district almost subsided; and, from about the beginning of December, I was chiefly busy with the check and inspection of the irrigated areas of certain important canal villages of the Kurnool district in which there has been very extensive dry crop irrigation this year. In all my tours through the Kurnool district portion under the canal, I have, of course, taken care to instruct and induce the Kurnool district canal ryots to try experiments in the cultivation of cummin seed, &c., and in all, 165 out of 184 days have been spent by me out of head-quarters during the half year under report.

Irrigation in the current year.

3. I beg to enclose a villagewar statement showing the extents actually canal irrigated in fasli 1305 (1895–96) under the first and second crops, and those irrigated in the current fasli up to the end of December last; and it will be seen from this statement that the extents irrigated under the canal this year up to the end of December last are as shown in the subjoined abstract in the different canal taluks of both the districts, when compared with the actual figures of fasli 1305 (1895–96):—

District.	Taluk.	Actual extent of fasli 1305. First crop.	Second crop.	Total.	Extent in fasli 1306 up to the end of December last.	Column 6 compared with column 3.	Column 6 compared with column 5.
1	2	3	4	5	6	7	8
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
..	1. Ramallakot	1,687·80	431·76	2,119·56	2,657·78	+ 969·98	+ 538·22
..	2. Nandikotkur	5,100·98	693·51	5,794·49	24,616·12	+ 19,515·14	+ 18,821·63
..	3. Nandyal	2,668·87	762·47	3,431·34	12,064·94	+ 9,396·7	+ 8,633·60
..	4. Sirvel	3,361·77	178·75	3,540·52	11,848·77	+ 8,487	+ 8,308·25
..	5. Koilkuntla	333·48	70·72	404·20	5,167·38	+ 4,833·90	+ 4,763·18
	District total ..	13,152·90	2,137·21	15,290·11	56,354·99	+ 43,202·9	+ 41,064·88
..	6. Jammalamadugu ..	172·31	..	172·31	485·64	+ 313·33	+ 313·33
..	7. Proddatur	5,923·6	1,019·47	6,942·53	8,632·20	+ 2,709·14	+ 1,689·67
..	8. Cuddapah	7,215·67	3,158·33	10,374	7,943·39	+ 727·72	— 2,430·61
	District total ..	13,311·4	4,177·80	17,488·84	17,061·23	+ 3,750·19	— 427·61
	Canal total ..	26,463·94	6,315·01	32,778·95	73,416·22	+ 46,952·28	+ 40,637·27

4. Compared with the first crop figures of the previous fasli, all the five canal taluks of the Kurnool district show increase up to the end of December last, the total increase shown by the district being acres 43,202·9. Of the five taluks, the Nandikotkur taluk, which has the largest canal-commanded area, naturally shows the largest increase, namely, acres 19,515·14; Nandyal comes next with an increase of acres 9,396·7; Sirvel stands third with an increase of acres 8,487; then comes Koilkuntla with an increase of acres 4,833·90, and Ramallakot stands last with an increase of acres 969·98. The reason why the Ramallakot taluk shows comparatively a small increase is no other than that its canal-commanded area is very limited, being only a narrow strip of land situated between the canal on one side and the Tumbudra river itself on the other. In the Cuddapah district also, all the three canal taluks show increase, the increase in the Jammalamadugu taluk being acres 313·33, that in Proddatur acres 2,709·14, and that in Cuddapah acres 727·72, thus making a total increase of acres 3,750·19 for the whole district. Jammalamadugu is a nominal canal taluk with comparatively very limited canal-commanded area, and this is why that taluk shows the smallest increase, and the reason why the Cuddapah taluk shows less increase than Proddatur seems to be that its canal-commanded area with dry crops on is less than that of Proddatur, and Proddatur has consequently gone in for canal water for a much larger extent of dry crops than Cuddapah. The total increase shown by both the districts together is acres 46,952·28 or nearly acres 47,000 in round figures.

5. Compared with the *total* extents irrigated in fasli 1305 (1895–96) including both crops, the extents irrigated in the current fasli up to the end of December last show increase in all the canal taluks of both the districts excepting Cuddapah, and the reason why the Cuddapah taluk happens to show decrease here is no other than that its second crop extent coming on subsequent to December is generally large, being nearly as much as that of all the other seven canal taluks put together, and this taluk is consequently expected to more than make up the deficiency during the second-crop season. Looked at districtwar, the Kurnool district shows a total increase of acres 41,064·88, whereas the Cuddapah district shows a net decrease of acres 427·61, the total net increase under the entire canal being thus acres 40,637·27.

6. The total extent irrigated by the canal in the current fasli up to the end of December last comes to acres 73,416·22 against acres 32,778·95, the total extent irrigated by the canal in the last fasli including both crops; and to the above figure of the current fasli have yet to be added (*a*) second crops, such as dry season indigo, &c., yet to be raised and (*b*) extents yet to be discovered by the canal revenue inspectors in their inspections or "Azmoish" which is still in progress, and I think it would not be too much to expect the total extent for the current fasli to go up to acres 80,000, so that the current fasli will, in point of extent irrigated, be second to the

great famine year of 1876–77 (fasli 1286) when the total extent secured by the canal was acres 90,285, the highest figure ever reached as yet since the first opening of the canal for irrigation in 1863–64. The extent irrigated by the canal in 1891–92 (fasli 1301) which was acres 73,417 has hitherto been the second highest figure reached by the canal, but the current year's extent up to the end of December alone having already come up to acres 73,417 (a strange coincidence of figures) the year 1891–92 (fasli 1301) has certainly lost its position.

7. Had it not been for the light rains that fortunately fell in the latter part of November last, at least another 20,000 acres of dry crops, especially cholam, would have gone in for canal water this year from about Mutsumurri of the Nandikotkur taluk down to Rajoli of the Sirvel taluk, and the total extent irrigated by the canal reached a lakh of acres and thus exceeded even the great famine figure of 1876–77. The rains that fell in November, though light after all and not enough by themselves for the successful raising of any *fresh* crops, were found enough to save standing cholam and cotton crops, not already irrigated, without any further necessity of irrigation; and thus the ryots of several important canal villages between the two points of the canal mentioned above gave up the idea of using canal water in lots of cases where they had even prepared minor channels with the view of taking canal water. It may not be out of place to mention here that, when scarcity of water was felt for standing *wet* crops of the Proddatur and Cuddapah taluks about the middle of October last, it was found necessary by the lower sub-divisional officer to lay a temporary restriction on the issue of water for dry crops within the limits of his sub-division above Rajoli with the view of saving the said wet crops of the Cuddapah district; and, had this restriction which lasted for nearly twenty days from about the latter part of October not been placed, the Nandyal, Sirvel and Koilkuntla taluks would have irrigated a few more thousands of acres of dry crops, but then standing *wet* crops on over 10,000 of acres would have had to perish in the Proddatur and Cuddapah taluks of the Cuddapah district and any additional pecuniary advantage gained by the canal in higher up taluks would have been more than counterbalanced by loss of revenue to be sustained lower down as already stated in my letter, No. 389, dated the 5th December last, embodied in B.P., dated the 12th idem, No. 424.

8. Turning to villagewar particulars, it will be observed from the enclosed statement that, compared with the first-crop figures of fasli 1305 (1895–96), only two insignificant and nominal canal villages of the Ramallakot taluk, namely, Sunkesala and Kurnool, show some small decrease, whereas all the other eight villages of the taluk show good increase. In the Nandikotkur taluk similarly, only one insignificant canal village Boyarevula shows a nominal decrease of less than 2 acres, whereas all the other 44 villages including the three belonging to His Highness the Nizam exhibit good increase. In this taluk two villages Guntakandalu and Tangedantsa have newly come in for canal water this year. In the Nandyal taluk, two villages (Irnipad and Pulimaddi) show some small insignificant decrease, whereas all the other usual canal villages have shown good increase, and some seven villages have newly come in for canal water this year. These new villages are (1) Tirripad, (2) Koratamaddi, (3) Gadivemulu, (4) Kanalu, (5) Kottalu, (6) Bhimavaram and (7) Bollavaram. In the Sirvel taluk, four villages, namely, (1) Govindapalli, (2) Kobakandukur, (3) Rampalli and (4) Bodaram show some small decrease each; but, of these, the last-mentioned three have yet to be inspected by the canal revenue inspector. All the other usual canal villages of this taluk show good increase, and eight villages have newly come in for canal water this year from this taluk. They are (1) Dibaguntla, (2) Mullappa Chintakunta, (3) Pasarapad, (4) Julepalli, (5) Nagalavaram, (6) Vantivelagula, (7) Murtikristnapuram and (8) Gurupuramandinne. All the usual canal villages of the Koilkuntla taluk show good increase, and three villages of the taluk, namely, (1) Perayapalli, (2) Govindadinne and (3) Sarvoyapalli have newly come in for canal water this year. In the Jammalamadugu taluk of the Cuddapah district, Peddamudiyum is the only usual canal village which shows decrease, and the other usual canal village Jangalapalli shows good increase. (1) Kotalapalli, (2) Balapanagudur, (3) Uppalur and (4) Suddapalli are four new villages of this taluk which have taken canal water this year. The reason why

Peddamudiyum shows decrease has not been stated by the canal revenue inspector in the statement submitted by him. It will, however, be ascertained at the time of the water-rate settlement of the taluk. In the Proddatur taluk six villages, that is, (1) Kanagudur, (2) Annalur, (3) Idimadulla, (4) Shrotriyum Nerravada, (5) Shrotriyum Morrayapalli and (6) Pichichipad show small and insignificant decreases, whereas all the other usual canal villages show some good increase, and Nélatur is a village which has newly come in for canal water this year from this taluk. In the Cuddapah taluk there are altogether 27 canal villages this year; and, of these, 15 show nominal decrease, whereas all the other usual canal villages show increase, and Thollagangana palli is a village of this taluk which has newly taken canal water this year for a small extent of nearly 6 acres.

The heavy increase appearing in the case of most of the villages in the enclosed statement is, as already stated above, due to the failure of rains, and consequent extensive demand for water for dry crops; and decreases, wherever they appear, are generally small and insignificant and, as such, call for no remarks.

Ratewar comparison of the current year's irrigation up to the end of December with the actual irrigation of fasli 1305 (1895–96).

9. The subjoined statement compares the irrigated extents of the current fasli down to the end of December last with the actual figures of the last fasli 1305 (1895–96) according to crops of different rates:—

District.	Taluk.	First-class garden crops such as sugar-cane, &c., rate Rs. 6.						First-crop paddy and turmeric, rate Rs. 4.						"Bagayet" or garden crops including second-crop paddy, rate Rs. 3.					
		Fasli 1305.			Fasli 1306 up to the end of December.			Fasli 1305.			Fasli 1306 up to the end of December.			Fasli 1305.			Fasli 1306 up to the end of December.		
		On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool.	1. Ramallakot ..	171·70	0·70	172·40	126·36	2·86	129·22	1,202·62	15·71	1,218·33	1,329 62	59·34	1,388·96	573·73	11·64	585·37	330·68	18·93	349·61
	2. Nandikotkur ..	17·85	0·18	18·03	30·26	1 90	32·16	3,602·96	53·93	3,656·89	3,421·39	53·12	3,474·51	781·98	69·43	851·41	1,299·72	45·38	1,345·10
	3. Nandyal	2·72	0·48	3·20	4·98	0·90	5·88	1,859·44	36·28	1,895·72	2,091·35	48·48	2,139·83	391·14	53·06	444·20	510·04	111·0	621·04
	4. Sirvel	7·18	0·50	7·68	3·16	..	3·16	1,125·22	32·12	1,157·34	1,063·23	17·52	1,080·75	382·27	75·96	458·23	1,040·89	71·55	1,112·44
	5. Koilkuntla ..	2·34	0·13	2·47	2·34	..	2·34	187·56	5·7	192·63	213·82	4·74	218·56	90·17	7·24	97·41	94·0	2·75	96·75
	District Total ..	201·79	1·99	203·78	167·10	5·66	172·76	7,977·80	143·11	8,120·91	8,119·41	183·20	8,302·61	2,219 29	217·33	2,436·62	3,275 33	249·61	3,524·94
Cuddapah.	6. Jammalamadugu ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29 68	7·44	37·12
	7. Proddatur	29·38	..	29·38	23·39	4·30	27·69	2,734·75	46·15	2,780·90	3,038·52	75·45	3,113·97	2,738·42	218·63	2,957·05	2,043·66	203·31	2,246·97
	8. Cuddapah	15·47	0·71	16·18	31·10	..	31·10	5,615·83	128·62	5,744·45	4,570 40	90·49	4,660·89	3,704·71	143·79	3,848·50	1,862·07	162·04	2,024·11
	District Total ..	44·85	0·71	45·56	54·49	4·30	58·79	8,350·58	174·77	8,525·35	7,608·92	165·94	7,774·86	6,443·13	362·42	6,805·55	3,935·41	372·79	4,308·20
	Canal Total ..	246·64	2·70	249·34	221·59	9·96	231·55	16,328·38	317·88	16,646·26	15,728·33	349·14	16,077·47	8,662·42	579·75	9,242·17	7,210·74	622·40	7,833·14

District.	Taluk.	Mundla or tailed coarse paddy, rate Rs. 2.						Dry crops, rate Re. 1.						Total.					
		Fasli 1305.			Fasli 1306 up to end of December.			Fasli 1305.			Fasli 1306 up to end of December.			Fasli 1305.			Fasli 1306 up to end of December.		
		On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool.	1. Ramallakot ..	..	..	..	..	..	..	136·42	7·04	143·46	726·7	63·92	789·99	2,084·47	35·09	2,119·56	2,512·73	145·5	2,657·78
	2 Nandikotkur ..	185·69	8·18	193·87	259·98	4·46	264·44	737·76	336·53	1,074·29	18,864·52	635·39	19,499·91	5,326·24	468·25	5,794·49	25,875·87	740·25	24,616·12
	3. Nandyal	558·45	32·21	590·66	813·36	39·53	852 89	296·18	201·38	497·56	6,713·79	1,731·51	8,445·30	3,107·93	323·41	3,431·34	10,133·52	1,931·42	12,064·94
	4. Sirvel	836·55	127·83	964·38	1,758·32	32·83	1,791·15	532·94	419 95	952·89	7,312·1	549·26	7,861·27	2,884·16	656·36	3,540·52	11,177·61	671·16	11,848·77
	5. Koilkuntla ..	11·75	3·47	15·22	36·60	..	36·60	45·22	51·25	96·47	3,456·5	1,327·08	4,813·13	337·04	67·16	404·20	3,832·81	1,334·57	5,167·38
	District Total ..	1,592·44	171·69	1,764·13	2,868·26	76·82	2,945·08	1,748·52	1,016·15	2,764·67	37,102·44	4,307·16	41,409·60	13,739·84	1,550·27	15,290·11	51,532·54	4,822·45	56,354·99
Cuddapah.	6. Jammalamadugu ..	12·95	..	12·95	8·74	..	8·74	153·36	6·0	159·36	354·64	85·14	439·78	166·31	6·0	172·31	393·6	92·58	485·64
	7. Proddatur ..	89·99	0·38	90·37	6·6	..	6·6	945·94	138·89	1,084·83	2,626·71	610·80	3,237·51	6,538·48	404·05	6,942·53	7,738·34	893·86	8,632·20
	8. Cuddapah ..	7·69	..	7·69	..	..	..	618·23	138·95	757·18	1,047·49	179·80	1,227·29	9,961·93	412·07	10,374·0	7,511·06	432·33	7,943·39
	District Total ..	110·63	0·38	111·01	14·80	..	14·80	1,717·53	283·84	2,001·37	4,028·84	875·74	4,904·58	16,666·72	822·12	17,488·84	15,642·46	1,418·77	17,061·23
	Canal Total ..	1,703·07	172·07	1,875·14	2,883·06	76·82	2,959·88	3,466·05	1,299·99	4,766·04	41,131·28	5,182·90	46,314·18	30,406·56	2,372·39	32,778·95	67,175·0	6,241·22	73,416·22

It will be observed from this statement that, under the Rs. 6 rate, the Jammalamadugu taluk, which is an insignificant and nominal canal taluk, has no figures at all and that the variations are rather small in all the other canal taluks except Ramallakot where there appears a decrease of about 40 acres. This decrease is due partly to the extent under sugar-cane for this year being smaller than the last year's extent in consequence of some want of water felt towards the close of the last fasli at the time of sugar-cane sowings, and partly to certain mango topes which applied for canal water last year during the second-crop season and are thus included in the last year's figures not having as yet applied for water this year. Under the Rs. 4 rate, the Jammalamadugu taluk has again no figures at all; and, of the remaining seven canal taluks, Nandikotkur, Sirvel and Cuddapah alone show decrease, but this decrease seems only nominal for the most part, and is expected to be almost made up when the canal Revenue Inspectors of the taluks complete their "azmoish" or inspection work which is in progress. Under the Rs. 3 rate, the extent against the Koilkuntla taluk is almost equal to that of the last year; and, of the remaining seven taluks, Ramallakot, Proddatur and Cuddapah alone show decrease; but even in the case of these taluks the decrease is expected to be made up during the second-crop season by means of second-crop paddy in the Ramallakot taluk and through garden or "Bagayet" crops such as dry season indigo, &c., in the case of the Proddatur and Cuddapah taluks. There is no coarse or dry paddy at all in the Ramallakot taluk and so it has no figures to show under the Rs. 2 rate. The remaining four taluks of the Kurnool district show increase under this rate, whereas all the three canal taluks of the Cuddapah district show decrease. There is, however, the point for consideration that coarse or dry paddy is not an important crop at all in the canal villages of the Cuddapah district where the choice of the ryots is generally in favour of good paddy and garden or "Bagayet" crops; and even last year the total extent of coarse paddy in the Cuddapah district was only 111 acres. Under dry crops or the Re. 1 rate, all the eight canal taluks show increase, the increase in the case of the Nandikotkur, Nandyal, Sirvel, Koilkuntla and Proddatur taluks being particularly heavy. It will be observed that, taking both the districts together, the total increase under the Re. 1 rate was over 41,500 acres down to the end of December last, and to this figure some more pretty large area will, I feel sure, have to be added when the canal Revenue Inspectors complete their "azmoish" or inspections, especially in the Nandikotkur, Nandyal, Sirvel and Koilkuntla taluks.

10. I think it would be unfair to the canal if, before closing my remarks on the current year's irrigation, I omit to mention that, in addition to the total extent of acres 73,416·22 directly irrigated as particularized in the enclosed statement, the canal have supplied water to another 5,000 acres of paddy raised under canal-fed tanks in both the districts which, unlike in previous years, almost exclusively depended on the canal this year for their supply, their natural sources of supply having put in little or no water into them.

11. Referring to the latter part of paragraph 11 of my report for the half-year ending 30th June last, No. 234, dated the 21st September 1896, wherein I promised to ascertain and report the pecuniary outturn of certain dry season indigo experiments carried on in the Nandikotkur, Nandyal and Sirvel taluks in fasli 1305 (1895–96), I beg to submit that the crop raised by two ryots on about 13 acres in Yallur of the Sirvel taluk finally proved to be the best case for the year and yielded as much as nearly Rs. 60 per acre for one cutting, whereas the successful crop on 2 acres of Sambavaram of the same taluk is said to have gone for Rs. 20 an acre. In Kothapalli, hamlet of Nandyal, the successful crop was sold by the ryots to one Hayathkhan of Nandyal from Rs. 20 to Rs. 30 an acre according to density of crop; and two ryots of Nagatur of the Nandikotkur taluk sold their crop, while yet not fully grown, for Rs. 10 an acre. In all the above cases, the indigo stumps left were used by the ryots as manure for the succeeding paddy and other crops.

Introduction of experimental crops into the Kurnool district canal villages.

12. Out of the Rs. 1,000 advance kindly sanctioned by the Board in its Proceedings, dated 9th September 1896, Mis. No. 4355, cummin seed fit for sowing purposes was purchased for nearly Rs. 650 during the half-year under report; and, of the seed

purchased, about 100 maunds sufficient for 100 acres has been distributed to 187 ryots of fifty-nine villages; and, so far as information has been gathered, about 100 of the individuals who received the seed appear to have actually tried the experiments promised on about 75 acres in all. The reason why a large proportion of the recipients of the seed failed to carry on the experiments promised by them is no other than the unfavourable character of the season. At the time of the distribution of seed, people had hopes of rain yet and the season did not assume that severe and threatening aspect it subsequently did; and, when they noticed an unfavourable change in the season, such of the recipients of seed as had limited holdings under the canal gave up the idea of carrying on the promised experiments, and naturally went in for fodder and grain crops such as cholam, &c. Cummin seed crop raised is still standing on the ground in some cases, and in others it has just been removed. In some cases the crop raised has been attacked with disease; but, at the same time, there are also other cases in which the crop is in excellent condition, and good and highly encouraging outturns are expected. The experiments carried on this year in Kothapalli, hamlet of Nandyal, in Regadigudur, Chelimilla, Pamulapad, Velpanur, Vellala, Virapuram, Maravakonda, Allur, Maddigatla, Tarigoppula and Padidunpad of the Nandikotkur taluk have already produced good impressions on the minds of ryots about the short duration and the economical and remunerative character of the crop; and, although the precise outturns of all the successful cases are not yet known and must, therefore, be reserved for a future report, it seems to my mind that this year's experiments will also tend to multiply the number of experiments to be carried on in the coming year at different points of the canal in the Kurnool district, just as the few first experiments of last year (fasli 1305) have increased the current year's experiments about sixfold. Had the season been normal, many more experiments would certainly have been tried and the extent involved would also have been much larger; and it seems even now gratifying that, notwithstanding the adverse character of the season, so many as about 100 individuals have carried on the promised experiments this year. Steps have, of course, been taken to recover the value of the seed distributed from its recipients, and credit back the amount to the treasury before the close of the current official year.

13. As regards dry season or second crop indigo, the time for putting down that crop is only just at hand, and it is not precisely known in how many places in the Kurnool district it will be tried this year under the canal. Considering, however, the facts (*a*) that, owing to the adverse character of the season, the inclination of the agricultural classes is almost exclusively for food and fodder crops, and (*b*) that even rain-sown standing indigo of the current fasli had, in several places under the canal, been deliberately spoiled by ryots in the Kurnool district and grain crops put in on such lands since October last, I do not think we can expect much in the direction of dry season indigo experiments this year. I am, however, sanguine that the ryots of Kothapalli, hamlet of Nandyal, will not give it up even in a bad year like this, and I actually saw some of them preparing their lands for dry season indigo on my way up the other day. I expect some ryots of Govindadinne of the Koilkuntla taluk also to go in for dry season indigo this year.

14. In addition to cummin seed and dry season indigo, two "bagayet" crops adopted from the Cuddapah district portion under the canal and introduced into the canal taluks of the Kurnool district, the cultivation of ground-nut as an experiment has also been introduced into certain block lands of the Nandikotkur and Proddatur taluks during the half-year under report. This crop which was nowhere under the canal previously has been tried this year on two patches of about 0·75 acre each on the Pamulapad and Bhanumukkala blocks of the Kurnool district, and on about half an acre on the Madur block of the Proddatur taluk, Cuddapah district. The crops on the two patches of the Kurnool blocks have come on well and are in good condition. I saw them but ten days ago on my way up. The crop tried on the Madur block is reported to have been attacked with disease; but it was sown rather late some time about the end of October, and this is presumably why it is unhealthy. I feel sure that this ground-nut crop will easily spread in the canal villages of the Kurnool district if only

endeavours are maintained in that direction by the local revenue officers till the crop becomes a settled and recognised crop. No doubt, cummin seed is a more remunerative and less standing crop than ground-nut, but it is a very delicate crop and one often subject to diseases. Ground-nut, on the other hand, seems to be a comparatively hardy crop requiring less tillage and preparation of land as also less of manure, and it thus strikes me that it will spread under the canal in the Kurnool district with greater speed than even cummin seed or dry season indigo.

15. To my humble mind, introduction of fresh crops seems to be a subject which will have to be worked at patiently and with persistence and not hurried through. In the first place, it is not an easy matter to induce a conservative and an illiterate class of ryots like those we generally find in the Kurnool district to take to and try fresh and strange crops; and, in getting fresh crops tried, we have also to make some allowance for the ryots' want of *practical* experience in the treatment of the crops raised and consequent failures and short outturns here and there. Of course, all possible instruction is being given them as to how to raise the experimental crops told, but what they thus learn from word of mouth or from printed notices is, after all, only theoretical for them till they themselves try; and it cannot be as good a guide to them as practical experience gained by actually raising the crop once or twice. In cases where more than one individual have tried cummin seed cultivation this year in one and the same village, and where the crop of one individual has come out decidedly more successful than that of another, the ryots have already begun to see for themselves in what particular or particulars the owner of the defective crop has erred or failed, and it is practical experience of this kind that will surely help them.

I feel sure that all the three crops introduced will gradually spread and take root in the canal villages of the Kurnool district, but it would be necessary for the local officers to take some special interest in the matter for a few years till, as I have already stated above, the crops become settled and recognized crops.

16. Of the extent of acres 1,687·19 reported as granted under the block rules down to the end of June 1896, acres 235·55 have since been relinquished by Messrs. Ganapathy Rungasamy & Co. of Madur on the ground that acres 164·78 of it have been pronounced unirrigable by Public Works Department officers since their taking up the block, and that no means of irrigation have been provided for the remaining acres 70·77; and during the half-year under report sanction has been accorded for the grant of fresh blocks to the extent of acres 156·17 so that the net total extent granted under the block rules down to the close of December last is acres 1,607·81 as particularised in the margin. Of the blocks mentioned in the margin, the first three of the Kurnool district and the first three of Cuddapah are in working order. It is a local ryot of Pudúr that took up block No. 1 of the Kurnool district; and in cases Nos. 2 and 3 of Kurnool, some families from the Tinnevelly and Tanjore districts have come and settled themselves down, not far from their blocks, and are working on their respective blocks. The holders of block No. 2 have purchased five pairs of bullocks and work with their own bullocks, whereas the holder of block No. 3 of Kurnool has been working with hired bullocks. Blocks Nos. 4 and 5 of Kurnool have only been recently granted and no work has as yet been begun on them. It is an Iyer from Tinnevelly that holds block No. 6 of Kurnool. He came and spent about Rs. 150 in levelling the block, but did not as yet raise any crop or crops on it. Of the Cuddapah district

District.	Village.	Extent.
1	2	3
		ACS.
Kurnool.	1. Pudur	10·20
	2. Pamulapad	209·20
	3. Bhanumukkala	270·71
	4. Do.	17·56
	5. Do.	17·63
	6. Pesaravoyi	71·35
	District Total ..	596·65
Cuddapah.	1. Madur	335·36
	2. Mudukur	121·51
	3. Bhadripalli	250·04
	4. Thudumuladinne	81·15
	5. Thawaripalli	102·12
	6. Thudumuladinne	14·71
	7. Yetur	106·27
	District Total ..	1011·16
	Grand Total ..	1607·81

blocks, the holders of Nos. 1 and 2 have come and settled themselves down near their blocks and are working with their own pairs of bullocks. The holders of block No. 3 come and stop in Mudukur during working seasons, and have not as yet become permanent residents near their block. They work with hired bullocks. The holders of blocks Nos. 4 and 5 of Cuddapah, to whom I have already referred in paragraph 16 of my report No 234 for the half-year ending 30th June last, have neither relinquished their blocks, nor have they come and begun work on them. Block No. 6 of Cuddapah is one granted for fasli 1306, and the holder has not yet come from Tinnevelly and begun work. He has, however, written to say that he would keep the block. Block No. 7 of Cuddapah has only been recently granted and is to run on from the next fasli 1307 (1897–98). Besides the blocks already granted five block applications to the total extent of acres 278·67 have since been received and are under inquiry with the Tahsildars concerned, and they will be disposed of in due course.

17. The following table shows the approximate extents as yet cultivated this year with different kinds of crops in the case of the six blocks (three of Kurnool and three of Cuddapah) on which work has been going on, and dry season indigo is expected to be tried on some more extent by some of these block holders. Paddy alone has been harvested in the case of the three Kurnool blocks, and the results are reported to be specially encouraging on the Pudúr and Pamulapad blocks, and ordinary on the Shanumakkalu block where a large portion of the crop was unfortunately attacked with disease. Cummin seed has just been removed from the Pamulapad block and the outturn appears promising, although the seed has not yet been thrashed out. All the other crops are still standing on the ground. In the case of the Cuddapah district working blocks, korra crop alone is stated to have as yet been harvested and the yield is said to be about one-fourth. All the other crops are still on the ground, but are stated to be in good condition on the whole. Writing on the 18th January last, Mr. Rungasami Iyer, the working share-holder of Messrs. Ganapathy & Co. of Madur, states: "I am glad to inform you that the transplanted experimental paddy is successful in the place where the land has been manured and ploughed last year. So I mean cultivating 100 acres paddy for the next year;" and it may not be out of place to mention here that the land on which he tried the experiment is pure black soil land, about the turning of which into successful paddy land the local ryots seem to have hitherto entertained doubts:—

District.	Number of block and village.	Paddy.	Turmeric.	Ragi.	Bariga.	Coriander.	Cummin seed.	Cholam.	Cotton.
1	2	3	4	5	6	7	8	9	10
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool ..	1. Pudúr	4·	..	..	..	..	..	..	..
	2. Pamulapad	12·	..	..	..	1·	2·50	20·	..
	3. Bhanumukkalu ..	30·	..	..	..	..	..	..	..
Cuddapah ..	1. Madur	29·10	..	6·	4·	..	10·	85·22	55·72
	2. Mudukur	2·	·70	..	..	8·6	7·77	18·38	..
	3. Bhadripalli	3·50	·48	..	59·9	..	..	25·4	..
	Total ..	80·60	1·18	6·	63·9	9·6	20·27	148·64	55·72

District.	Number of block and village.	Arika.	Korru.	Kusuma.	Ground-nut.	Bengal gram.	Horse gram.	Chilly.	Ulundu or black gram.	Total.
		11	12	13	14	15	16	17	18	19
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool ..	1. Pudúr	..	..	..	..	..	..	..	..	4·
	2. Pamulapad ..	..	..	..	·75	2·	10·	·50	10·	58·75
	3. Bhanumukkalu ..	..	..	..	·75	..	10·	..	5·	45·75
Cuddapah ..	1. Madur	24·89	..	31·94	·50	11·78	56·80	..	..	315·95
	2. Mudukur	7·73	13·30	..	..	..	..	..	..	57·94
	3. Bhadripalli	..	..	..	..	..	..	..	..	88·11
	Total ..	32·62	13·30	31·94	2·	13·78	76·80	·50	15·	570·50

18. Since the submission of the last half-yearly report, the undermentioned applications for fresh sluices and channels have been received from ryots of village at different points of the canal with offers to bring the extents specified under permanent wet cultivation should the sluices and channels applied for be provided; and, of course, the applications have all of them been forwarded to the Executive Engineer for favourable consideration and early orders. In almost all the cases the applicants express their willingness to take canal water from the coming fasli 1307 (1897–98); and there is no doubt whatever that, in many of these cases, the protection derived from the canal this year by villages already under its influence has taught the applicants a lesson and convinced them what a precious thing it is to have lands commanded by the canal and how unsafe it must be, on the other hand, to rely exclusively on rains. I hope the Public Works Department will, wherever feasible, comply with the applicants' requests during the present dry season and before the next rains begin:—

District.	Taluk.	Village.	Applicants.	Acreage promised to be permanently brought under wet cultivation.
				Acs.
Kurnool ..	Nandyal ..	Brahmanapalli ..	Annapu Reddi and others	120·30
	Do. ..	Guntanala	Gali Ramanna and others	20·
	Do. ..	Thogarchedu ..	Timmareddi and others	65·71
	Do. ..	Mulasagaram, hamlet of Nandyal.	Balakondareddi and others	60·
	Koilkuntla ..	Joladarasi	Narayana Reddi and others	56·
	Do. ..	Bhimunipad ..	Subbareddi and others	60·
	Do. ..	Gubagundum Jambuladinne.	Sanjeeva Reddi and others	100·
Cuddapah ..	Do. ..	Lingala	Kurnam Venkatasubbiah and others ..	80·15
	Proddatur ..	Vasudevapuram, hamlet of Velavali.	Boddi Venkata and others	40·
			Total ..	602·16

19. At the instance of the Superintending Engineer of the circle, I have been desired to assist the special Sub-divisional officer of the Public Works Department by preparing these preliminary fieldwar lists for all the canal villages of both the districts, and I began the work about the beginning of the current fasli; but, as the present adverse season and extensive demand for and use of canal water and consequent necessity for supervision of distribution of water under common and important channels and personal check and inspection of the irrigated areas here and there at important points have drawn me away from and did not allow time for that branch of work from about the middle of October last, I am sorry I have not been able to prepare the preliminary fieldwar lists required by the Public Works Department for more than 46 villages in all or about one-fourth the total number of villages commanded by the canal; and I think that the preparation of similar lists for all the other canal villages would itself require full six months' time, as it is not only the preparation of mere lists that is necessary, but also inspection of all the fields to be mentioned in the lists.

Preparation of lists of fields fit for charge of the famine insurance rate, &c., in connection with the next re-settlement.

20. The total term of three years already sanctioned for the special office expires on the 15th March next; and, unless it be thought necessary to retain the office for a year more or so in consideration of (*a*) the other lists that have yet to be prepared and are referred to in the immediately preceding paragraph and (*b*) the settlement of the current fasli canal water-rate of the remaining six canal taluks excepting Proddatur and Cuddapah, the jamabandi of which is to be conducted by the Collector himself, I humbly venture to repeat suggestion (*c*) made by me in paragraph 10 of my report No. 26, dated the 7th February 1896, embodied in G.O., No. 343, Revenue, dated the 21st July 1896, communicated with B.P., Mis. No. 4147, dated 24th August last. It will be observed that the above suggestion was to the effect that, in case the special office is done away with, it will be advantageous to entrust the canal charge of the entire length of the canal in the Kurnool district to one officer, that is, to the Head-quarter Deputy Collector of the Kurnool district, and similarly the canal charge within the limits of the Cuddapah district to the Head-quarter Deputy Collector of Cuddapah, giving each of these officers an additional temporary clerk on Rs. 25 to look after canal work. The various reasons which have induced me to put forward the above suggestion as one both economical and advantageous have been fully set forth in paragraph 10 of my report No. 26 referred to above, and, I therefore, think it redundant to reiterate them here. I hope, however, that my remarks on the subject in the said paragraph will kindly be perused and considered before the question is finally disposed of one way or the other. As regards the objection that the entrusting of canal work to the Head-quarter Deputy Collectors may cause inconvenience to parties in criminal cases, &c., by reason of the officers' absence in remote taluks, I humbly beg to submit that my own humble impression is that, as long as there are the Special Canal Revenue Inspectors and the Tahsildars to assist them in all miscellaneous canal matters, it will not be necessary for the Head-quarter Deputy Collectors to visit the canal taluks other than those comprising their own divisions more than once or twice at the most in the year; and each such visit need not take more than ten days or so. In the Kurnool district the entire length of the canal is about 145 miles as already stated by me; and of this, the Head-quarter Deputy Collector's division itself extends as far down as about the 90th mile stone; and again about the last 15 miles length of the Kurnool district portion of the canal happens to pass through a tract not important in an irrigation point of view. In the case of the Cuddapah district, Jammalamadugu is a nominal and an insignificant canal taluk hardly requiring any supervision, and the few canal villages of the Proddatur taluk which adjoins the Cuddapah taluk can, I think, be easily visited by the Head-quarter Deputy Collector of Cuddapah once or twice in the year without causing any real inconvenience to his other work in Cuddapah. Should any doubts be still entertained as regards the feasibility of the above suggestion, it strikes me that it may at least be given a few years' trial in case it may be decided to do away with the special office. In conclusion, I beg to add that I hope I will kindly be excused for having put forward the above suggestion again, as I have ventured to repeat it (*a*) in the firm belief that it will serve the interests of the canal better to keep its revenue charge in the hands of one officer for each district than to divide it again as before, and (*b*) for the following chief reasons among others:—

The Special office.

(1) That the arrangement suggested will secure economy, saving nearly all the expenditure of a special office.

(2) That it will produce in the minds of canal ryots a healthy and salubrious impression that the arrangement made by Government for the supervision of canal work is not of a temporary but of a permanent and standing nature.

(3) That the Nandikotkur taluk, which is the most important canal taluk in the Kurnool district containing more than half the canal-commanded area of the district as shown in the margin, contains, for the most part, the best of the canal-commanded lands and is thus, in fact, the taluk on which the future of the canal mainly depends and that, such a taluk forming his own division, the Head-quarter Deputy Collector must naturally be in a position to have the cultivation of experimental crops, which mean a good deal indeed for the future of the canal, carried on in the taluk with far greater effect than can be possibly the case under any other arrangement.

Taluk.	Approximate extent commanded by existing distributaries.
	Acs.
1. Ramallakot	2,900
2. Nandikotkur	51,500
3. Nandyal	14,900
4. Sirvel	18,900
5. Koilkuntla	6,300
Total ...	94 500

21. In conclusion, I beg to submit that the subject referred to in paragraph 20 is one requiring the favour of very early orders.

Endorsement by the Acting Collector of Kurnool, dated 26th February 1897, No. 'N'.

Forwarded.

2. The Deputy Collector's proposal to abolish the special office and to assign the whole of the canal work to the Head-quarter Deputy Collector does not commend itself to me for the reasons given in this office endorsement, Ref. on Perdl. No. 25-Ver., dated 28th February 1896, embodied in B.P., dated 7th May 1896, No. 91. Considering the state of the season and the heavy work devolving in consequence on the Divisional Officers, the further retention of the Deputy Collector for one year, at all events, seems advisable.

Endorsement by A. C. TATE, Esq., Collector of Cuddapah, dated 27th February 1897.

Forwarded.

2. Regarding paragraph 16, I beg to invite the attention of the Board to this office Ref. on Cur. No. 5843-Rev., dated 11th September 1896. The block of 100·27 acres of Yetur entered in item No. 7 has been relinquished on 31st August 1896.

3. I do not approve of the Head-quarter Deputy Collector being placed in charge of the canal in Proddatur and Jammalamadugu.

Resolution—dated 14th May 1897, No. 368.

With the endorsements read above, the Collectors of Kurnool and Cuddapah forward the report of the Special Deputy Collector in charge of the Kurnool-Cuddapah canal, for the half-year ending 31st December 1896.

2. The Deputy Collector was in camp for 165 out of 184 days during the half year. For the first three months of the period, he was chiefly engaged in preparing lists of lands which may be permanently transferred to wet, and of those on which an insurance rate may be imposed at the ensuing re-settlement. The rest of the period was devoted —

(1) to making arrangements with the Public Works Department to ensure a due regulation of water-supply to the two districts;

(2) to seeing that, in respect of villages served by important common distributaries, the ryots of villages higher up did not take water to the prejudice of those lower down; and

(3) to inspecting the irrigated areas of certain important canal villages of the Kurnool district, in which water was very largely taken for the irrigation of dry crops.

3. The tables appended to paragraphs 3 and 9 of the Deputy Collector's report show that the extent irrigated up to the end of December last was much larger than the first crop area recorded in the previous year in all the canal taluks of both the districts, the total increase being acres 46,952. Even as compared with the total extent under both the crops irrigated in fasli 1305, the cultivated area during the half year under report exhibits an increase in all the taluks except Cuddapah. In the Cuddapah taluk, however, it is stated that the second crop cultivation is generally very large being in fact equal to that in all the other seven taluks put together, and that the deficiency noticed above may therefore be expected to be more than made up during the second crop season. On the whole, there was marked increase in the year so far as the inspection already made is concerned; and the inspection by canal Revenue Inspectors, which is still in progress, and second crops, such as dry season indigo which may be raised hereafter, will doubtless add to this increase. The total irrigated area this year will, according to the Deputy Collector's estimate, go up to 80,000 acres, the increase being wholly under dry crops irrigated owing to the

unfavourable character of the season; and the current year's figure will be next only to that reached in the great famine year 1876–77, in which the total irrigated area amounted to 90,285 acres, the highest figure on record. The variations in the different taluks are fully explained in paragraphs 4 and 5 of the Deputy Collector's report.

4. Besides the 73,416 acres directly irrigated as stated above, the canal has supplied water to 5,000 acres of paddy raised under canal-fed tanks in both the districts, which, owing to their natural sources having afforded them little or no supply, had to depend almost exclusively on the canal this year.

5. Out of the sum of Rs. 1,000 placed at the disposal of the Deputy Collector for the purchase of cummin-seed to be supplied to ryots for experimental cultivation, as per B.P., dated 9th September 1896, Mis. No. 4355, nearly Rs. 650 were spent on the purchase of the seed. One hundred maunds were distributed to 187 ryots in 59 villages, of whom 100 ryots cultivated an extent of 75 acres. Many more would have tried the experiment, were it not for the unfavourable character of the season. The experiments made so far seem to promise well.

6. The experimental cultivation of ground-nut was successfully carried out on two patches of 75 cents each and the Deputy Collector thinks that this crop is likely to be very largely grown in the canal-commanded area, if the local revenue officers exert themselves in this direction, as the crop is more hardy than the cummin-seed and requires "less tillage and preparation of land as also less manure."

Ground-nut is very extensively grown in the South Arcot district and the Deputy Collector may obtain from the Collector of that district useful information about the cultivation of this crop for dissemination among the ryots.

With reference to the Special Deputy Collector's remarks in paragraphs 14 and 15 of his report to the effect that if the cultivation of special crops in the canal village is to prove a success, the local revenue officers should take some special interest in the matter, the Collectors of Kurnool and Cuddapah will be requested to consider the advisability of appointing as Revenue Inspectors, when vacancies occur, a few passed students of the Agricultural College and posting them to canal firkas.

7. During the half year under review, about 236 acres of land taken up under the block rules were relinquished, as nearly three-fourths of this area were pronounced to be unirrigable by the Public Works Department; and, as no means of irrigation had been provided for the remainder, including 156 acres granted during the half year, the total extent of land assigned under the block rules up to 31st December last was 1,608 acres. Three blocks in each of the two districts of Kurnool and Cuddapah aggregating 490 and 707 acres, respectively, are reported to be under cultivation, 571 acres having been cultivated in them with different crops as shown in the margin. It is satisfactory to note that ryots from Tanjore and Tinnevelly continue to take up more lands under the rules.

	Acs
Cholam	149
Paddy	81
Horsegram	77
Bariga	63
Cotton	56
Arika	33
Kusuma	32
Other crops	80
Total ...	571

8. Paragraph 18 of the Deputy Collector's report will be communicated to the Chief Engineer for Irrigation for consideration.

9. The retention of the Special Deputy Collector for a further period of one year has been approved by Government in its order Mis. No. 1801, Revenue, dated 3rd April 1897. It would be difficult to find an officer who would take more interest in this work than the Special Deputy Collector.

10. The Board would desire again to call attention to the figures quoted in its Proceedings, No. 40 dated 19th January 1897. The value of crops saved by the canal in the present year was then estimated at 17·12 lakhs, and the figure is likely to be exceeded when the full returns come in. It is a point which cannot, until recognised, be too much insisted on, that irrigation works should not be valued for the

mere interest which they bring in on the capital expenditure; their value as ensuring food-crops and protecting large tracts of country from famine, thereby diminishing the expenditure on famine relief, is an important feature too often overlooked.

(True Copies and Extract.)

(Signed) R. V. SRINIVASIAR,
Secretary.

To the Secretary to Government, Revenue Department,
with one enclosure (to be returned).
" Collector of Kurnool.
" " of Cuddapah.
" Special Deputy Collector, Kurnool-Cuddapah Canal.
" Chief Engineer for irrigation.

ORDER—No. 546, Revenue, dated 9th July 1897.

Irrigation No. 2. Recorded.

(True Extract.)

for Ag Secretary to Government.

To the Board of Revenue (Revenue Settlement, Land Records and Agriculture), with enclosure.
" the Public Works Department.

Exd. Shaik Karim.

60 Copies.

Public Works Department.
(Irrigation Branch)

Government {1897} of Madras.

REVENUE.

Recd. }1897. *Enclosures*
Regd. *Spare copies*

G.O., No. 546, 9th July 1897.

No. 729 I & 6.8.97
Recorded

JULY. Jdg. W.H. I.

To the Ch: Engr. I.
" S.E. III circle.

Kurnool-Cuddapah Canal.

Recording Board's Proceedings submitting to Government report of the Special Deputy Collector, —, for the half-year ending 31st December 1896.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 14th May 1897, No. 368 :—

Read—the following letter from M.R.Ry. K. SUBBARAYUDU PANTULU Garu, Rao Bahadur, Canal Special Deputy Collector, to the Secretary to the Commissioner of R.S., L.R. and Agri. (through the Collectors of Kurnool and Cuddapah), dated Padidempad, 15th February 1897, No. 25 and Endorsements thereon by the Collectors of Kurnool and Cuddapah, dated 26th and 27th February 1897, respectively :—

Referring to the latter part of paragraph 3 of G.O., No. 964, Revenue, dated 7th November 1893, communicated with B.P., dated 16th February 1894, No. 87, I have the honour to submit the following report for the half-year ending 31st December last.

Movements of the Special officer during the half year.

2. From the beginning of July till about the first week of October last, I was engaged mainly in the preparation of the preliminary lists of canal-commanded lands (*a*) to be permanently transferred to wet and (*b*) fit to be recommended for imposition of the famine insurance rate at the next re-settlement, the said lists having been required by the Public Works Department in connection with paragraph 4 of G.O., No. 18, Revenue, dated 18th January 1896; and, as scarcity of water for the standing wet crops of the Cuddapah district depending on the canal began to be felt in the lower reaches of the canal in consequence of the ryots of the higher up canal taluks of the Kurnool district having simultaneously rushed in for canal water for their dry crops seeing the north-east monsoon fail, I was, for a month from about the middle of October last, chiefly engaged (*a*) in arranging with the Public Works Department officers in charge of the canal for the due regulation of water between the two districts so that the standing wet crops of the Cuddapah district might not be lost, and (*b*) in looking after the distribution of water under important common distributaries especially in the upper sub-division so that the ryots of higher up villages might not take undue advantage of their favourable situation to the detriment of standing wet and other crops in the lower down villages, as the ryots of different villages under all such common distributaries were found to be constantly disputing at the time. Towards the end of November, there was fortunately some light rainfall, and, with this, the rush for water for dry crops in the Kurnool district almost subsided; and, from about the beginning of December, I was chiefly busy with the check and inspection of the irrigated areas of certain important canal villages of the Kurnool district in which there has been very extensive dry crop irrigation this year. In all my tours through the Kurnool district portion under the canal, I have, of course, taken care to instruct and induce the Kurnool district canal ryots to try experiments in the cultivation of cummin seed, &c., and in all, 165 out of 184 days have been spent by me out of head-quarters during the half year under report.

Irrigation in the current year.

3. I beg to enclose a villagewar statement showing the extents actually canal irrigated in fasli 1305 (1895–96) under the first and second crops, and those irrigated in the current fasli up to the end of December last; and it will be seen from this statement that the extents irrigated under the canal this year up to the end of December last are as shown in the subjoined abstract in the different canal taluks of both the districts, when compared with the actual figures of fasli 1305 (1895–96):—

District.	Taluk.	Actual extent of fasli 1305.			Extent in fasli 1306 up to the end of December last.	Column 6 compared with column 3.	Column 6 compared with column 5.
		First crop.	Second crop.	Total.			
1	2	3	4	5	6	7	8
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
..	1. Ramallakot	1,687·80	431·76	2,119·56	2,657·78	+ 969·98	+ 538·22
..	2. Nandikotkur	5,100·98	693·51	5,794·49	24,616·12	+ 19,515·14	+ 18,821·63
..	3. Nandyal	2,668·87	762·47	3,431·34	12,064·94	+ 9,396·7	+ 8,633·60
..	4. Sirvel	3,361·77	178·75	3,540·52	11,848·77	+ 8,487	+ 8,308·25
..	5. Koilkuntla	333·48	70·72	404·20	5,167·38	+ 4,833·90	+ 4,763·18
	District total ..	13,152·90	2,137·21	15,290·11	56,354·99	+ 43,202·9	+ 41,064·88
..	6. Jammalamadugu ..	172·31	..	172·31	485·64	+ 313·33	+ 313·33
..	7. Proddatur	5,923·6	1,019·47	6,942·53	8,632·20	+ 2,709·14	+ 1,689·67
..	8. Cuddapah	7,215·67	3,158·33	10,374	7,943·39	+ 727·72	— 2,430·61
	District total ..	13,311·4	4,177·80	17,488·81	17,061·23	+ 3,750·19	— 427·61
	Canal total ..	26,463·94	6,315·01	32,778·95	73,416·22	+ 46,952·28	+ 40,637·27

4. Compared with the first crop figures of the previous fasli, all the five canal taluks of the Kurnool district show increase up to the end of December last, the total increase shown by the district being acres 43,202·9. Of the five taluks, the Nandikotkur taluk, which has the largest canal-commanded area, naturally shows the largest increase, namely, acres 19,515·14; Nandyal comes next with an increase of acres 9,396·7; Sirvel stands third with an increase of acres 8,487; then comes Koilkuntla with an increase of acres 4,833·90, and Ramallakot stands last with an increase of acres 969·98. The reason why the Ramallakot taluk shows comparatively a small increase is no other than that its canal-commanded area is very limited, being only a narrow strip of land situated between the canal on one side and the Tumbudra river itself on the other. In the Cuddapah district also, all the three canal taluks show increase, the increase in the Jammalamadugu taluk being acres 313·33, that in Proddatur acres 2,709·14, and that in Cuddapah acres 727·72, thus making a total increase of acres 3,750·19 for the whole district. Jammalamadugu is a nominal canal taluk with comparatively very limited canal-commanded area, and this is why that taluk shows the smallest increase, and the reason why the Cuddapah taluk shows less increase than Proddatur seems to be that its canal-commanded area with dry crops on is less than that of Proddatur, and Proddatur has consequently gone in for canal water for a much larger extent of dry crops than Cuddapah. The total increase shown by both the districts together is acres 46,952·28 or nearly acres 47,000 in round figures.

5. Compared with the *total* extents irrigated in fasli 1305 (1895–96) including both crops, the extents irrigated in the current fasli up to the end of December last show increase in all the canal taluks of both the districts excepting Cuddapah, and the reason why the Cuddapah taluk happens to show decrease here is no other than that its second crop extent coming on subsequent to December is generally large, being nearly as much as that of all the other seven canal taluks put together, and this taluk is consequently expected to more than make up the deficiency during the second-crop season. Looked at districtwar, the Kurnool district shows a total increase of acres 41,064·88, whereas the Cuddapah district shows a net decrease of acres 427·61, the total net increase under the entire canal being thus acres 40,637·27.

6. The total extent irrigated by the canal in the current fasli up to the end of December last comes to acres 73,416·22 against acres 32,778·95, the total extent irrigated by the canal in the last fasli including both crops; and to the above figure of the current fasli have yet to be added (*a*) second crops, such as dry season indigo, &c., yet to be raised and (*b*) extents yet to be discovered by the canal revenue inspectors in their inspections or "Azmoish" which is still in progress, and I think it would not be too much to expect the total extent for the current fasli to go up to acres 80,000, so that the current fasli will, in point of extent irrigated, be second to the

great famine year of 1876–77 (fasli 1286) when the total extent secured by the canal was acres 90,285, the highest figure ever reached as yet since the first opening of the canal for irrigation in 1863–64. The extent irrigated by the canal in 1891–92 (fasli 1301) which was acres 73,417 has hitherto been the second highest figure reached by the canal, but the current year's extent up to the end of December alone having already come up to acres 73,417 (a strange coincidence of figures) the year 1891–92 (fasli 1301) has certainly lost its position.

7. Had it not been for the light rains that fortunately fell in the latter part of November last, at least another 20,000 acres of dry crops, especially cholam, would have gone in for canal water this year from about Mutsumurri of the Nandikotkur taluk down to Rajoli of the Sirvel taluk, and the total extent irrigated by the canal reached a lakh of acres and thus exceeded even the great famine figure of 1876–77. The rains that fell in November, though light after all and not enough by themselves for the successful raising of any *fresh* crops, were found enough to save standing cholam and cotton crops, not already irrigated, without any further necessity of irrigation; and thus the ryots of several important canal villages between the two points of the canal mentioned above gave up the idea of using canal water in lots of cases where they had even prepared minor channels with the view of taking canal water. It may not be out of place to mention here that, when scarcity of water was felt for standing *wet* crops of the Proddatur and Cuddapah taluks about the middle of October last, it was found necessary by the lower sub-divisional officer to lay a temporary restriction on the issue of water for dry crops within the limits of his sub-division above Rajoli with the view of saving the said wet crops of the Cuddapah district; and, had this restriction which lasted for nearly twenty days from about the latter part of October not been placed, the Nandyal, Sirvel and Koilkuntla taluks would have irrigated a few more thousands of acres of dry crops, but then standing *wet* crops on over 10,000 of acres would have had to perish in the Proddatur and Cuddapah taluks of the Cuddapah district and any additional pecuniary advantage gained by the canal in higher up taluks would have been more than counterbalanced by loss of revenue to be sustained lower down as already stated in my letter, No. 389, dated the 5th December last, embodied in B.P., dated the 12th idem, No. 424.

8. Turning to villagewar particulars, it will be observed from the enclosed statement that, compared with the first-crop figures of fasli 1305 (1895–96), only two insignificant and nominal canal villages of the Ramallakot taluk, namely, Sunkesala and Kurnool, show some small decrease, whereas all the other eight villages of the taluk show good increase. In the Nandikotkur taluk similarly, only one insignificant canal village Boyarevula shows a nominal decrease of less than 2 acres, whereas all the other 44 villages including the three belonging to His Highness the Nizam exhibit good increase. In this taluk two villages Guntakandalu and Tangedantsa have newly come in for canal water this year. In the Nandyal taluk, two villages (Irnipad and Pulimaddi) show some small insignificant decrease, whereas all the other usual canal villages have shown good increase, and some seven villages have newly come in for canal water this year. These new villages are (1) Tirripad, (2) Koratamaddi, (3) Gadivemulu, (4) Kanalu, (5) Kottalu, (6) Bhímavaram and (7) Bollavaram. In the Sirvel taluk, four villages, namely, (1) Govindapalli, (2) Kobakandukur, (3) Rampalli and (4) Bodaram show some small decrease each; but, of these, the last-mentioned three have yet to be inspected by the canal revenue inspector. All the other usual canal villages of this taluk show good increase, and eight villages have newly come in for canal water this year from this taluk. They are (1) Dibaguntla, (2) Mullappa Chintakunta, (3) Pasarapad, (4) Julepalli, (5) Nagalavaram, (6) Vantivelagula, (7) Murtikristnapuram and (8) Gurupuramandinne. All the usual canal villages of the Koilkuntla taluk show good increase, and three villages of the taluk, namely, (1) Perayapalli, (2) Govindadinne and (3) Sarvoyapalli have newly come in for canal water this year. In the Jammalamadugu taluk of the Cuddapah district, Peddamudiyum is the only usual canal village which shows decrease, and the other usual canal village Jangalapalli shows good increase. (1) Kotalapalli, (2) Balapanagudur, (3) Uppalur and (4) Suddapalli are four new villages of this taluk which have taken canal water this year. The reason why

Peddamudiyum shows decrease has not been stated by the canal revenue inspector in the statement submitted by him. It will, however, be ascertained at the time of the water-rate settlement of the taluk. In the Proddatur taluk six villages, that is, (1) Kanagudur, (2) Annalur, (3) Idimadulla, (4) Shrotriyum Nerravada, (5) Shrotriyum Morrayapalli and (6) Pichichipad show small and insignificant decreases, whereas all the other usual canal villages show some good increase, and Nélatur is a village which has newly come in for canal water this year from this taluk. In the Cuddapah taluk there are altogether 27 canal villages this year; and, of these, 15 show nominal decrease, whereas all the other usual canal villages show increase, and Thollagangana-palli is a village of this taluk which has newly taken canal water this year for a small extent of nearly 6 acres.

The heavy increase appearing in the case of most of the villages in the enclosed statement is, as already stated above, due to the failure of rains, and consequent extensive demand for water for dry crops; and decreases, wherever they appear, are generally small and insignificant and, as such, call for no remarks.

9. The subjoined statement compares the irrigated extents of the current fasli down to the end of December last with the actual figures of the last fasli 1305 (1895–96) according to crops of different rates:—

Ratewar comparison of the current year's irrigation up to the end of December with the actual irrigation of fasli 1305 (1895–96).

District.	Taluk.	First-class garden crops such as sugar-cane, &c., rate Rs. 6.						First-crop paddy and turmeric, rate Rs. 4.						"Bagayet" or garden crops including second-crop paddy, rate Rs. 3.					
		Fasli 1305.			Fasli 1306 up to the end of December.			Fasli 1305.			Fasli 1306 up to the end of December.			Fasli 1305.			Fasli 1306 up to the end of December.		
		On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool.	1. Ramallakot ..	171·70	0·70	172·40	126·36	2·86	129·22	1,202·62	15·71	1,218·33	1,329 62	59·34	1,388·96	573·73	11·64	585·37	330·68	18·93	349·61
	2. Nandikotkur ..	17·85	0·18	18·03	30·26	1 90	32·16	3,602·96	53·93	3,656·89	3,421·39	53·12	3,474·51	781·98	69·43	851·41	1,299·72	45·38	1,345·10
	3. Nandyal	2·72	0·48	3·20	4·98	0·90	5·88	1,859·44	36 28	1,895·72	2,091·35	48·48	2,139·83	391·14	53·06	444·20	510·04	111·0	621·04
	4. Sirvel	7·18	0·50	7·68	3·16	..	3·16	1,125·22	32·12	1,157·34	1,063·23	17·52	1,080·75	382·27	75·96	458·23	1,040·89	71·55	1,112·44
	5. Koilkuntla ..	2·34	0·13	2·47	2·34	..	2·34	187·56	5·7	192·63	213·82	4·74	218·56	90·17	7·24	97·41	94·0	2·75	96·75
	District Total ..	201·79	1·99	203·78	167·10	5·66	172·76	7,977·80	143·11	8,120·91	8,119·41	183·20	8,302·61	2,219 29	217·33	2,436·62	3,275 33	249·61	3,524·94
Cuddapah.	6. Jammalamadugu ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29·68	7·44	37·12
	7. Proddatur	29·38	..	29·38	23·39	4·30	27·69	2,734·75	46·15	2,780·90	3,038·52	75·45	3,113·97	2,738·42	218·63	2,957·05	2,043·66	203·31	2,246·97
	8. Cuddapah	15·47	0·71	16·18	31·10	..	31·10	5,615·83	128·62	5,744·45	4,570 40	90·49	4,660·89	3,704·71	143·79	3,848·50	1,862·07	162·04	2,024·11
	District Total ..	44·85	0·71	45·56	54·49	4·30	58·79	8,350·58	174·77	8,525·35	7,608·92	165·94	7,774·86	6,443·13	362·42	6,805·55	3,935·41	372·79	4,308·20
	Canal Total ..	246·64	2·70	249·34	221·59	9·96	231·55	16,328·38	317·88	16,646·26	15,728·33	349·14	16,077·47	8,662·42	579·75	9,242·17	7,210·74	622·40	7,833·14

District.	Taluk.	Mundla or tailed coarse paddy, rate Rs. 2.						Dry crops, rate Re. 1.						Total.					
		Fasli 1305.			Fasli 1306 up to end of December.			Fasli 1305.			Fasli 1306 up to end of December.			Fasli 1305.			Fasli 1306 up to end of December.		
		On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool.	1. Ramallakot ..	..	..	..	..	..	..	136·42	7·04	143·46	726·7	63·92	789·99	2,084·47	35·09	2,119·56	2,512·73	145·5	2,657·78
	2 Nandikotkur ..	185·69	8·18	193·87	259·98	4·46	264·44	737·76	336·53	1,074·29	18,864·52	635·39	19,499·91	5,326·24	468·25	5,794·49	23,875·87	740·25	24,616·12
	3. Nandyal	558·45	32·21	590·66	813·36	39·53	852 89	296·18	201·38	497·56	6,713·79	1,731·51	8,445·30	3,107·93	323·41	3,431·34	10,133·52	1,931·42	12,064·94
	4. Sirvel	836·55	127·83	964·38	1,758·32	32·83	1,791·15	532·94	419·95	952·89	7,312·1	549·26	7,861·27	2,884·16	656·36	3,540·52	11,177·61	671·16	11,848·77
	5. Koilkuntla ..	11·75	3·47	15·22	36·60	..	36·60	45·22	51·25	96·47	3,456·5	1,327·08	4,813·13	337·04	67·16	404·20	3,832·81	1,334·57	5,167·38
	District Total ..	1,592·44	171·69	1,764·13	2,868·26	76·82	2,945·08	1,748·52	1,016·15	2,764·67	37,102·44	4,307·16	41,409·60	13,739·84	1,550·27	15,290·11	51,532·54	4,822·45	56,354·99
Cuddapah.	6. Jammalamadugu ..	12·95	..	12·95	8·74	..	8·74	153·36	6·0	159·36	354·64	85·14	439·78	166·31	6·0	172·31	393·6	92·58	485·64
	7. Proddatur ..	89·99	0·38	90·37	6·6	..	6·6	945·94	138·89	1,084·83	2,626·71	610·80	3,237·51	6,538·48	404·05	6,942·53	7,738·34	893·86	8,632·20
	8. Cuddapah ..	7·69	..	7·69	..	..	..	618·23	138·95	757·18	1,047·49	179·80	1,227·29	9,961·93	412·07	10,374·0	7,511·06	432·33	7,943·39
	District Total ..	110·63	0·38	111·01	14·80	..	14·80	1,717·53	283·84	2,001·37	4,028·84	875·74	4,904·58	16,666·72	822·12	17,488·84	15,642·46	1,418·77	17,061·23
	Canal Total ..	1,703·07	172·07	1,875·14	2,883·06	76·82	2,959·88	3,466·05	1,299·99	4,766·04	41,131·28	5,182·90	46,314·18	30,406·56	2,372·39	32,778·95	67,175·0	6,241·22	73,416·22

It will be observed from this statement that, under the Rs. 6 rate, the Jammalamadugu taluk, which is an insignificant and nominal canal taluk, has no figures at all and that the variations are rather small in all the other canal taluks except Ramallakot where there appears a decrease of about 40 acres. This decrease is due partly to the extent under sugar-cane for this year being smaller than the last year's extent in consequence of some want of water felt towards the close of the last fasli at the time of sugar-cane sowings, and partly to certain mango topes which applied for canal water last year during the second-crop season and are thus included in the last year's figures not having as yet applied for water this year. Under the Rs. 4 rate, the Jammalamadugu taluk has again no figures at all; and, of the remaining seven canal taluks, Nandikotkur, Sirvel and Cuddapah alone show decrease, but this decrease seems only nominal for the most part, and is expected to be almost made up when the canal Revenue Inspectors of the taluks complete their "azmoish" or inspection work which is in progress. Under the Rs. 3 rate, the extent against the Koilkuntla taluk is almost equal to that of the last year; and, of the remaining seven taluks, Ramallakot, Proddatur and Cuddapah alone show decrease; but even in the case of these taluks the decrease is expected to be made up during the second-crop season by means of second-crop paddy in the Ramallakot taluk and through garden or "Bagayet" crops such as dry season indigo, &c., in the case of the Proddatur and Cuddapah taluks. There is no coarse or dry paddy at all in the Ramallakot taluk and so it has no figures to show under the Rs. 2 rate. The remaining four taluks of the Kurnool district show increase under this rate, whereas all the three canal taluks of the Cuddapah district show decrease. There is, however, the point for consideration that coarse or dry paddy is not an important crop at all in the canal villages of the Cuddapah district where the choice of the ryots is generally in favour of good paddy and garden or "Bagayet" crops; and even last year the total extent of coarse paddy in the Cuddapah district was only 111 acres. Under dry crops or the Re. 1 rate, all the eight canal taluks show increase, the increase in the case of the Nandikotkur, Nandyal, Sirvel, Koilkuntla and Proddatur taluks being particularly heavy. It will be observed that, taking both the districts together, the total increase under the Re. 1 rate was over 41,500 acres down to the end of December last, and to this figure some more pretty large area will, I feel sure, have to be added when the canal Revenue Inspectors complete their "azmoish" or inspections, especially in the Nandikotkur, Nandyal, Sirvel and Koilkuntla taluks.

10. I think it would be unfair to the canal if, before closing my remarks on the current year's irrigation, I omit to mention that, in addition to the total extent of acres 73,416·22 directly irrigated as particularized in the enclosed statement, the canal have supplied water to another 5,000 acres of paddy raised under canal-fed tanks in both the districts which, unlike in previous years, almost exclusively depended on the canal this year for their supply, their natural sources of supply having put in little or no water into them.

Introduction of experimental crops into the Kurnool district canal villages.

11. Referring to the latter part of paragraph 11 of my report for the half-year ending 30th June last, No. 234, dated the 21st September 1896, wherein I promised to ascertain and report the pecuniary outturn of certain dry season indigo experiments carried on in the Nandikotkur, Nandyal and Sirvel taluks in fasli 1305 (1895–96), I beg to submit that the crop raised by two ryots on about 13 acres in Yallur of the Sirvel taluk finally proved to be the best case for the year and yielded as much as nearly Rs. 60 per acre for one cutting, whereas the successful crop on 2 acres of Sambavaram of the same taluk is said to have gone for Rs. 20 an acre. In Kothapalli, hamlet of Nandyal, the successful crop was sold by the ryots to one Hayathkhan of Nandyal from Rs. 20 to Rs. 30 an acre according to density of crop; and two ryots of Nagatur of the Nandikotkur taluk sold their crop, while yet not fully grown, for Rs. 10 an acre. In all the above cases, the indigo stumps left were used by the ryots as manure for the succeeding paddy and other crops.

12. Out of the Rs. 1,000 advance kindly sanctioned by the Board in its Proceedings, dated 9th September 1896, Mis. No. 4355, cummin seed fit for sowing purposes was purchased for nearly Rs. 650 during the half-year under report; and, of the seed

purchased, about 100 maunds sufficient for 100 acres has been distributed to 187 ryots of fifty-nine villages; and, so far as information has been gathered, about 100 of the individuals who received the seed appear to have actually tried the experiments promised on about 75 acres in all. The reason why a large proportion of the recipients of the seed failed to carry on the experiments promised by them is no other than the unfavourable character of the season. At the time of the distribution of seed, people had hopes of rain yet and the season did not assume that severe and threatening aspect it subsequently did; and, when they noticed an unfavourable change in the season, such of the recipients of seed as had limited holdings under the canal gave up the idea of carrying on the promised experiments, and naturally went in for fodder and grain crops such as cholam, &c. Cummin seed crop raised is still standing on the ground in some cases, and in others it has just been removed. In some cases the crop raised has been attacked with disease; but, at the same time, there are also other cases in which the crop is in excellent condition, and good and highly encouraging outturns are expected. The experiments carried on this year in Kothapalli, hamlet of Nandyal, in Regadigudur, Chelimilla, Pamulapad, Velpanur, Vellala, Virapuram, Maravakonda, Allur, Maddigatla, Tarigoppula and Padidunpad of the Nandikotkur taluk have already produced good impressions on the minds of ryots about the short duration and the economical and remunerative character of the crop; and, although the precise outturns of all the successful cases are not yet known and must, therefore, be reserved for a future report, it seems to my mind that this year's experiments will also tend to multiply the number of experiments to be carried on in the coming year at different points of the canal in the Kurnool district, just as the few first experiments of last year (fasli 1305) have increased the current year's experiments about sixfold. Had the season been normal, many more experiments would certainly have been tried and the extent involved would also have been much larger; and it seems even now gratifying that, notwithstanding the adverse character of the season, so many as about 100 individuals have carried on the promised experiments this year. Steps have, of course, been taken to recover the value of the seed distributed from its recipients, and credit back the amount to the treasury before the close of the current official year.

13. As regards dry season or second crop indigo, the time for putting down that crop is only just at hand, and it is not precisely known in how many places in the Kurnool district it will be tried this year under the canal. Considering, however, the facts (*a*) that, owing to the adverse character of the season, the inclination of the agricultural classes is almost exclusively for food and fodder crops, and (*b*) that even rain-sown standing indigo of the current fasli had, in several places under the canal, been deliberately spoiled by ryots in the Kurnool district and grain crops put in on such lands since October last, I do not think we can expect much in the direction of dry season indigo experiments this year. I am, however, sanguine that the ryots of Kothapalli, hamlet of Nandyal, will not give it up even in a bad year like this, and I actually saw some of them preparing their lands for dry season indigo on my way up the other day. I expect some ryots of Govindadinne of the Koilkuntla taluk also to go in for dry season indigo this year.

14. In addition to cummin seed and dry season indigo, two "bagayet" crops adopted from the Cuddapah district portion under the canal and introduced into the canal taluks of the Kurnool district, the cultivation of ground-nut as an experiment has also been introduced into certain block lands of the Nandikotkur and Proddatur taluks during the half-year under report. This crop which was nowhere under the canal previously has been tried this year on two patches of about 0·75 acre each on the Pamulapad and Bhanumukkala blocks of the Kurnool district, and on about half an acre on the Madur block of the Proddatur taluk, Cuddapah district. The crops on the two patches of the Kurnool blocks have come on well and are in good condition. I saw them but ten days ago on my way up. The crop tried on the Madur block is reported to have been attacked with disease; but it was sown rather late some time about the end of October, and this is presumably why it is unhealthy. I feel sure that this ground-nut crop will easily spread in the canal villages of the Kurnool district if only

endeavours are maintained in that direction by the local revenue officers till the crop becomes a settled and recognised crop. No doubt, cummin seed is a more remunerative and less standing crop than ground-nut, but it is a very delicate crop and one often subject to diseases. Ground-nut, on the other hand, seems to be a comparatively hardy crop requiring less tillage and preparation of land as also less of manure, and it thus strikes me that it will spread under the canal in the Kurnool district with greater speed than even cummin seed or dry season indigo.

15. To my humble mind, introduction of fresh crops seems to be a subject which will have to be worked at patiently and with persistence and not hurried through. In the first place, it is not an easy matter to induce a conservative and an illiterate class of ryots like those we generally find in the Kurnool district to take to and try fresh and strange crops; and, in getting fresh crops tried, we have also to make some allowance for the ryots' want of *practical* experience in the treatment of the crops raised and consequent failures and short outturns here and there. Of course, all possible instruction is being given them as to how to raise the experimental crops told, but what they thus learn from word of mouth or from printed notices is, after all, only theoretical for them till they themselves try; and it cannot be as good a guide to them as practical experience gained by actually raising the crop once or twice. In cases where more than one individual have tried cummin seed cultivation this year in one and the same village, and where the crop of one individual has come out decidedly more successful than that of another, the ryots have already begun to see for themselves in what particular or particulars the owner of the defective crop has erred or failed, and it is practical experience of this kind that will surely help them.

I feel sure that all the three crops introduced will gradually spread and take root in the canal villages of the Kurnool district, but it would be necessary for the local officers to take some special interest in the matter for a few years till, as I have already stated above, the crops become settled and recognized crops.

16. Of the extent of acres 1,687·19 reported as granted under the block rules down to the end of June 1896, acres 235·55 have since been relinquished by Messrs. Ganapathy Rungasamy & Co. of Madur on the ground that acres 164·78 of it have been pronounced unirrigable by Public Works Department officers since their taking up the block, and that no means of irrigation have been provided for the remaining acres 70·77; and during the half-year under report sanction has been accorded for the grant of fresh blocks to the extent of acres 156·17 so that the net total extent granted under the block rules down to the close of December last is acres 1,607·81 as particularised in the margin. Of the blocks mentioned in the margin, the first three of the Kurnool district and the first three of Cuddapah are in working order. It is a local ryot of Pudúr that took up block No. 1 of the Kurnool district; and in cases Nos. 2 and 3 of Kurnool, some families from the Tinnevelly and Tanjore districts have come and settled themselves down, not far from their blocks, and are working on their respective blocks. The holders of block No. 2 have purchased five pairs of bullocks and work with their own bullocks, whereas the holder of block No. 3 of Kurnool has been working with hired bullocks. Blocks Nos. 4 and 5 of Kurnool have only been recently granted and no work has as yet been begun on them. It is an Iyer from Tinnevelly that holds block No. 6 of Kurnool. He came and spent about Rs. 150 in levelling the block, but did not as yet raise any crop or crops on it. Of the Cuddapah district

District.	Village.	Extent.
1	2	3
		Acs.
Kurnool.	1. Pudur	10·20
	2. Pamulapad	209·20
	3. Bhanumukkala	270·71
	4. Do.	17·56
	5. Do.	17·63
	6. Pesaravoyi	71·35
	District Total ..	596·65
Cuddapah.	1. Madur	335·36
	2. Mudukur	121·51
	3. Bhadripalli	250·04
	4. Thudumuladinne	81·15
	5. Thawaripalli	102·12
	6. Thudumuladinne	14·71
	7. Yetur	106·27
	District Total ..	1011·16
	Grand Total ..	1607·81

blocks, the holders of Nos. 1 and 2 have come and settled themselves down near their blocks and are working with their own pairs of bullocks. The holders of block No. 3 come and stop in Mudukur during working seasons, and have not as yet become permanent residents near their block. They work with hired bullocks. The holders of blocks Nos. 4 and 5 of Cuddapah, to whom I have already referred in paragraph 16 of my report No 234 for the half-year ending 30th June last, have neither relinquished their blocks, nor have they come and begun work on them. Block No. 6 of Cuddapah is one granted for fasli 1306, and the holder has not yet come from Tinnevelly and begun work. He has, however, written to say that he would keep the block. Block No. 7 of Cuddapah has only been recently granted and is to run on from the next fasli 1307 (1897–98). Besides the blocks already granted five block applications to the total extent of acres 278·67 have since been received and are under inquiry with the Tahsildars concerned, and they will be disposed of in due course.

17. The following table shows the approximate extents as yet cultivated this year with different kinds of crops in the case of the six blocks (three of Kurnool and three of Cuddapah) on which work has been going on, and dry season indigo is expected to be tried on some more extent by some of these block holders. Paddy alone has been harvested in the case of the three Kurnool blocks, and the results are reported to be specially encouraging on the Pudúr and Pamulapad blocks, and ordinary on the Shanumakkalu block where a large portion of the crop was unfortunately attacked with disease. Cummin seed has just been removed from the Pamulapad block and the outturn appears promising, although the seed has not yet been thrashed out. All the other crops are still standing on the ground. In the case of the Cuddapah district working blocks, korra crop alone is stated to have as yet been harvested and the yield is said to be about one-fourth. All the other crops are still on the ground, but are stated to be in good condition on the whole. Writing on the 18th January last, Mr. Rungasami Iyer, the working share-holder of Messrs. Ganapathy & Co. of Madur, states: "I am glad to inform you that the transplanted experimental paddy is successful in the place where the land has been manured and ploughed last year. So I mean cultivating 100 acres paddy for the next year;" and it may not be out of place to mention here that the land on which he tried the experiment is pure black soil land, about the turning of which into successful paddy land the local ryots seem to have hitherto entertained doubts:—

District.	Number of block and village.	Paddy.	Turmeric.	Ragi.	Bariga.	Coriander.	Cummin seed.	Cholam.	Cotton.
1	2	3	4	5	6	7	8	9	10
		Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.
Kurnool ..	1. Pudúr	4·	..	..	..	..	..	..	..
	2. Pamulapad	12·	..	..	..	1·	2·50	20·	..
	3. Bhanumukkalu ..	30·	..	..	..	..	..	..	..
Cuddapah ..	1. Madur	29·10	..	6·	4·	..	10·	85·22	55·72
	2. Mudukur	2·	·70	..	..	8·6	7·77	18·38	..
	3. Bhadripalli	3·50	·48	..	59·9	..	..	25·4	..
	Total ..	80·60	1·18	6·	63·9	9·6	20·27	148·64	55·72

District.	Number of block and village.	Arika.	Korru.	Kusuma.	Ground-nut.	Bengal gram.	Horse gram.	Chilly.	Ulundu or black gram.	Total.
		11	12	13	14	15	16	17	18	19
		Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.
Kurnool ..	1. Pudúr	..	..	..	..	..	..	..	..	4·
	2. Pamulapad	..	..	..	·75	2·	10·	·50	10·	58·75
	3. Bhanumukkalu ..	..	..	..	·75	..	10·	..	5·	45·75
Cuddapah ..	1. Madur	24·89	..	31·94	·50	11·78	56·80	..	..	315·95
	2. Mudukur	7·73	13·30	..	..	..	..	..	..	57·94
	3. Bhadripalli	..	..	..	..	..	..	..	..	88·11
	Total ..	32·62	13·30	31·94	2·	13·78	76·80	·50	15·	570·50

18. Since the submission of the last half-yearly report, the undermentioned applications for fresh sluices and channels have been received from ryots of village at different points of the canal with offers to bring the extents specified under permanent wet cultivation should the sluices and channels applied for be provided; and, of course, the applications have all of them been forwarded to the Executive Engineer for favourable consideration and early orders. In almost all the cases the applicants express their willingness to take canal water from the coming fasli 1307 (1897-98); and there is no doubt whatever that, in many of these cases, the protection derived from the canal this year by villages already under its influence has taught the applicants a lesson and convinced them what a precious thing it is to have lands commanded by the canal and how unsafe it must be, on the other hand, to rely exclusively on rains. I hope the Public Works Department will, wherever feasible, comply with the applicants' requests during the present dry season and before the next rains begin:—

District.	Taluk.	Village.	Applicants.	Acreage promised to be permanently brought under wet cultivation.
				ACS.
Kurnool ..	Nandyal ..	Brahmanapalli ..	Annapu Reddi and others	120·30
	Do. ..	Guntanala	Gali Ramanna and others	20·
	Do. ..	Thogarchedu ..	Timmareddi and others	65·71
	Do. ..	Mulasagaram, hamlet of Nandyal.	Balakondareddi and others	60·
	Koilkuntla ..	Joladarasi	Narayana Reddi and others	56·
	Do. ..	Bhimunipad ..	Subbareddi and others	60·
	Do. ..	Gubagundum Jambuladinne.	Sanjeeva Reddi and others	100·
	Do. ..	Lingala	Kurnam Venkatasubbiah and others ..	80·15
Cuddapah ..	Proddatur ..	Vasudevapuram, hamlet of Velavali.	Boddi Venkata and others	40·
			Total ..	602·16

19. At the instance of the Superintending Engineer of the circle, I have been desired to assist the special Sub-divisional officer of the Public Works Department by preparing these preliminary fieldwar lists for all the canal villages of both the districts, and I began the work about the beginning of the current fasli; but, as the present adverse season and extensive demand for and use of canal water and consequent necessity for supervision of distribution of water under common and important channels and personal check and inspection of the irrigated areas here and there at important points have drawn me away from and did not allow time for that branch of work from about the middle of October last, I am sorry I have not been able to prepare the preliminary fieldwar lists required by the Public Works Department for more than 46 villages in all or about one-fourth the total number of villages commanded by the canal; and I think that the preparation of similar lists for all the other canal villages would itself require full six months' time, as it is not only the preparation of mere lists that is necessary, but also inspection of all the fields to be mentioned in the lists.

Preparation of lists of fields fit for charge of the famine insurance rate, &c., in connection with the next re-settlement.

20. The total term of three years already sanctioned for the special office expires on the 15th March next; and, unless it be thought necessary to retain the office for a year more or so in consideration of (*a*) the other lists that have yet to be prepared and are referred to in the immediately preceding paragraph and (*b*) the settlement of the current fasli canal water-rate of the remaining six canal taluks excepting Proddatur and Cuddapah, the jamabandi of which is to be conducted by the Collector himself, I humbly venture to repeat suggestion (*c*) made by me in paragraph 10 of my report No. 26, dated the 7th February 1896, embodied in G.O., No. 343, Revenue, dated the 21st July 1896, communicated with B.P., Mis. No. 4147, dated 24th August last. It will be observed that the

The Special office.

above suggestion was to the effect that, in case the special office is done away with, it will be advantageous to entrust the canal charge of the entire length of the canal in the Kurnool district to one officer, that is, to the Head-quarter Deputy Collector of the Kurnool district, and similarly the canal charge within the limits of the Cuddapah district to the Head-quarter Deputy Collector of Cuddapah, giving each of these officers an additional temporary clerk on Rs. 25 to look after canal work. The various reasons which have induced me to put forward the above suggestion as one both economical and advantageous have been fully set forth in paragraph 10 of my report No. 26 referred to above, and, I therefore, think it redundant to reiterate them here. I hope, however, that my remarks on the subject in the said paragraph will kindly be perused and considered before the question is finally disposed of one way or the other. As regards the objection that the entrusting of canal work to the Head-quarter Deputy Collectors may cause inconvenience to parties in criminal cases, &c., by reason of the officers' absence in remote taluks, I humbly beg to submit that my own humble impression is that, as long as there are the Special Canal Revenue Inspectors and the Tahsildars to assist them in all miscellaneous canal matters, it will not be necessary for the Head-quarter Deputy Collectors to visit the canal taluks other than those comprising their own divisions more than once or twice at the most in the year; and each such visit need not take more than ten days or so. In the Kurnool district the entire length of the canal is about 145 miles as already stated by me; and of this, the Head-quarter Deputy Collector's division itself extends as far down as about the 90th mile stone; and again about the last 15 miles length of the Kurnool district portion of the canal happens to pass through a tract not important in an irrigation point of view. In the case of the Cuddapah district, Jammalamadugu is a nominal and an insignificant canal taluk hardly requiring any supervision, and the few canal villages of the Proddatur taluk which adjoins the Cuddapah taluk can, I think, be easily visited by the Head-quarter Deputy Collector of Cuddapah once or twice in the year without causing any real inconvenience to his other work in Cuddapah. Should any doubts be still entertained as regards the feasibility of the above suggestion, it strikes me that it may at least be given a few years' trial in case it may be decided to do away with the special office. In conclusion, I beg to add that I hope I will kindly be excused for having put forward the above suggestion again, as I have ventured to repeat it (*a*) in the firm belief that it will serve the interests of the canal better to keep its revenue charge in the hands of one officer for each district than to divide it again as before, and (*b*) for the following chief reasons among others:—

(1) That the arrangement suggested will secure economy, saving nearly all the expenditure of a special office.

(2) That it will produce in the minds of canal ryots a healthy and salubrious impression that the arrangement made by Government for the supervision of canal work is not of a temporary but of a permanent and standing nature.

(3) That the Nandikotkur taluk, which is the most important canal taluk in the Kurnool district containing more than half the canal-commanded area of the district as shown in the margin, contains, for the most part, the best of the canal-commanded lands and is thus, in fact, the taluk on which the future of the canal mainly depends and that, such a taluk forming his own division, the Head-quarter Deputy Collector must naturally be in a position to have the cultivation of experimental crops, which mean a good deal indeed for the future of the canal, carried on in the taluk with far greater effect than can be possibly the case under any other arrangement.

Taluk.	Approximate extent commanded by existing distributaries.
	ACS.
1. Ramallakot	2,900
2. Nandikotkur	51,500
3. Nandyal	14,900
4. Sirvel	18,900
5. Koilkuntla	6,300
Total ...	94 500

21. In conclusion, I beg to submit that the subject referred to in paragraph 20 is one requiring the favour of very early orders.

Endorsement by the Acting Collector of Kurnool, dated 26th February 1897, No. 'N'.

Forwarded.

2. The Deputy Collector's proposal to abolish the special office and to assign the whole of the canal work to the Head-quarter Deputy Collector does not commend itself to me for the reasons given in this office endorsement, Ref. on Perdl. No. 25-Ver., dated 28th February 1896, embodied in B.P., dated 7th May 1896, No. 91. Considering the state of the season and the heavy work devolving in consequence on the Divisional Officers, the further retention of the Deputy Collector for one year, at all events, seems advisable.

Endorsement by A. C. TATE, Esq., Collector of Cuddapah, dated 27th February 1897.

Forwarded.

2. Regarding paragraph 16, I beg to invite the attention of the Board to this office Ref. on Cur. No. 5843-Rev., dated 11th September 1896. The block of 100·27 acres of Yetur entered in item No. 7 has been relinquished on 31st August 1896.

3. I do not approve of the Head-quarter Deputy Collector being placed in charge of the canal in Proddatur and Jammalamadugu.

Resolution—dated 14th May 1897, No. 368.

With the endorsements read above, the Collectors of Kurnool and Cuddapah forward the report of the Special Deputy Collector in charge of the Kurnool-Cuddapah canal, for the half-year ending 31st December 1896.

2. The Deputy Collector was in camp for 165 out of 184 days during the half year. For the first three months of the period, he was chiefly engaged in preparing lists of lands which may be permanently transferred to wet, and of those on which an insurance rate may be imposed at the ensuing re-settlement. The rest of the period was devoted—

(1) to making arrangements with the Public Works Department to ensure a due regulation of water-supply to the two districts;

(2) to seeing that, in respect of villages served by important common distributaries, the ryots of villages higher up did not take water to the prejudice of those lower down; and

(3) to inspecting the irrigated areas of certain important canal villages of the Kurnool district, in which water was very largely taken for the irrigation of dry crops.

3. The tables appended to paragraphs 3 and 9 of the Deputy Collector's report show that the extent irrigated up to the end of December last was much larger than the first crop area recorded in the previous year in all the canal taluks of both the districts, the total increase being acres 46,952. Even as compared with the total extent under both the crops irrigated in fasli 1305, the cultivated area during the half year under report exhibits an increase in all the taluks except Cuddapah. In the Cuddapah taluk, however, it is stated that the second crop cultivation is generally very large being in fact equal to that in all the other seven taluks put together, and that the deficiency noticed above may therefore be expected to be more than made up during the second crop season. On the whole, there was marked increase in the year so far as the inspection already made is concerned; and the inspection by canal Revenue Inspectors, which is still in progress, and second crops, such as dry season indigo which may be raised hereafter, will doubtless add to this increase. The total irrigated area this year will, according to the Deputy Collector's estimate, go up to 80,000 acres, the increase being wholly under dry crops irrigated owing to the unfavourable character of the season; and the current year's figure will be next only to that reached in the great famine year 1876–77, in which the total irrigated area amounted to 90,285 acres, the highest figure on record. The variations in the different taluks are fully explained in paragraphs 4 and 5 of the Deputy Collector's report.

4. Besides the 73,416 acres directly irrigated as stated above, the canal has supplied water to 5,000 acres of paddy raised under canal-fed tanks in both the districts, which, owing to their natural sources having afforded them little or no supply, had to depend almost exclusively on the canal this year.

5. Out of the sum of Rs. 1,000 placed at the disposal of the Deputy Collector for the purchase of cummin-seed to be supplied to ryots for experimental cultivation, as per B.P., dated 9th September 1896, Mis. No. 4355, nearly Rs. 650 were spent on the purchase of the seed. One hundred maunds were distributed to 187 ryots in 59 villages, of whom 100 ryots cultivated an extent of 75 acres. Many more would have tried the experiment, were it not for the unfavourable character of the season. The experiments made so far seem to promise well.

6. The experimental cultivation of ground-nut was successfully carried out on two patches of 75 cents each and the Deputy Collector thinks that this crop is likely to be very largely grown in the canal-commanded area, if the local revenue officers exert themselves in this direction, as the crop is more hardy than the cummin-seed and requires "less tillage and preparation of land as also less manure."

Ground-nut is very extensively grown in the South Arcot district and the Deputy Collector may obtain from the Collector of that district useful information about the cultivation of this crop for dissemination among the ryots.

With reference to the Special Deputy Collector's remarks in paragraphs 14 and 15 of his report to the effect that if the cultivation of special crops in the canal village is to prove a success, the local revenue officers should take some special interest in the matter, the Collectors of Kurnool and Cuddapah will be requested to consider the advisability of appointing as Revenue Inspectors, when vacancies occur, a few passed students of the Agricultural College and posting them to canal firkas.

7. During the half year under review, about 236 acres of land taken up under the block rules were relinquished, as nearly three-fourths of this area were pronounced to be unirrigable by the Public Works Department; and, as no means of irrigation had been provided for the remainder, including 156 acres granted during the half year, the total extent of land assigned under the block rules up to 31st December last was 1,608 acres. Three blocks in each of the two districts of Kurnool and Cuddapah aggregating 490 and 707 acres, respectively, are reported to be under cultivation, 571 acres having been cultivated in them with different crops as shown in the margin. It is satisfactory to note that ryots from Tanjore and Tinnevelly continue to take up more lands under the rules.

	Acs
Cholam	149
Paddy	81
Horsegram	77
Bariga	63
Cotton	56
Arika	33
Kusuma	32
Other crops	80
Total ...	571

8. Paragraph 18 of the Deputy Collector's report will be communicated to the Chief Engineer for Irrigation for consideration.

9. The retention of the Special Deputy Collector for a further period of one year has been approved by Government in its order Mis. No. 1801, Revenue, dated 3rd April 1897. It would be difficult to find an officer who would take more interest in this work than the Special Deputy Collector.

10. The Board would desire again to call attention to the figures quoted in its Proceedings, No. 40 dated 19th January 1897. The value of crops saved by the canal in the present year was then estimated at 17·12 lakhs, and the figure is likely to be exceeded when the full returns come in. It is a point which cannot, until recognised, be too much insisted on, that irrigation works should not be valued for the

mere interest which they bring in on the capital expenditure; their value as ensuring food-crops and protecting large tracts of country from famine, thereby diminishing the expenditure on famine relief, is an important feature too often overlooked.

(True Copies and Extract.)

(Signed) R. V. SRINIVASIAR,
Secretary.

To the Secretary to Government, Revenue Department,
with one enclosure (to be returned).
" Collector of Kurnool.
" ,, of Cuddapah.
" Special Deputy Collector, Kurnool-Cuddapah Canal.
" Chief Engineer for irrigation.

Order—No. 546, Revenue, dated 9th July 1897.

Irrigation No. 2. Recorded.

(True Extract.)

(Signed) G. STOKES,
Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement,
Land Records and Agriculture), with enclosure.
" the Public Works Department.

Exd. Shaik Karim.

60 Copies.

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G.O., No. 546, 9th July 1897.

JULY.

Kurnool-Cuddapah Canal.

Recording Board's Proceedings submitting to Government report of the Special Deputy Collector, —, for the half-year ending 31st December 1896.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 14th May 1897, No. 368 :—

Read—the following letter from M.R.Ry. K. SUBBARAYUDU PANTULU Garu, Rao Bahadur, Canal Special Deputy Collector, to the Secretary to the Commissioner of R.S., L.R. and Agri. (through the Collectors of Kurnool and Cuddapah), dated Padidempad, 15th February 1897, No. 25 and Endorsements thereon by the Collectors of Kurnool and Cuddapah, dated 26th and 27th February 1897, respectively :—

Referring to the latter part of paragraph 3 of G.O., No. 964, Revenue, dated 7th November 1893, communicated with B.P., dated 16th February 1894, No. 87, I have the honour to submit the following report for the half-year ending 31st December last.

Movements of the Special officer during the half year.

2. From the beginning of July till about the first week of October last, I was engaged mainly in the preparation of the preliminary lists of canal-commanded lands (*a*) to be permanently transferred to wet and (*b*) fit to be recommended for imposition of the famine insurance rate at the next re-settlement, the said lists having been required by the Public Works Department in connection with paragraph 4 of G.O., No. 18, Revenue, dated 18th January 1896; and, as scarcity of water for the standing wet crops of the Cuddapah district depending on the canal began to be felt in the lower reaches of the canal in consequence of the ryots of the higher up canal taluks of the Kurnool district having simultaneously rushed in for canal water for their dry crops seeing the north-east monsoon fail, I was, for a month from about the middle of October last, chiefly engaged (*a*) in arranging with the Public Works Department officers in charge of the canal for the due regulation of water between the two districts so that the standing wet crops of the Cuddapah district might not be lost, and (*b*) in looking after the distribution of water under important common distributaries especially in the upper sub-division so that the ryots of higher up villages might not take undue advantage of their favourable situation to the detriment of standing wet and other crops in the lower down villages, as the ryots of different villages under all such common distributaries were found to be constantly disputing at the time. Towards the end of November, there was fortunately some light rainfall, and, with this, the rush for water for dry crops in the Kurnool district almost subsided; and, from about the beginning of December, I was chiefly busy with the check and inspection of the irrigated areas of certain important canal villages of the Kurnool district in which there has been very extensive dry crop irrigation this year. In all my tours through the Kurnool district portion under the canal, I have, of course, taken care to instruct and induce the Kurnool district canal ryots to try experiments in the cultivation of cummin seed, &c., and in all, 165 out of 184 days have been spent by me out of head-quarters during the half year under report.

Irrigation in the current year.

3. I beg to enclose a villagewar statement showing the extents actually canal irrigated in fasli 1305 (1895–96) under the first and second crops, and those irrigated in the current fasli up to the end of December last; and it will be seen from this statement that the extents irrigated under the canal this year up to the end of December last are as shown in the subjoined abstract in the different canal taluks of both the districts, when compared with the actual figures of fasli 1305 (1895–96) :—

District.	Taluk.	Actual extent of fasli 1305.			Extent in fasli 1306 up to the end of December last.	Column 6 compared with column 3.	Column 6 compared with column 5.
		First crop.	Second crop.	Total.			
1	2	3	4	5	6	7	8
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
..	1. Ramallakot	1,687·80	431·76	2,119·56	2,657·78	+ 969·98	+ 538·22
..	2. Nandikotkur	5,100·98	693·51	5,794·49	24,616·12	+ 19,515·14	+ 18,821·63
..	3. Nandyal	2,668·87	762·47	3,431·34	12,064·94	+ 9,396·7	+ 8,633·60
..	4. Sirvel	3,361·77	178·75	3,549·52	11,848·77	+ 8,487	+ 8,308·25
..	5. Koilkuntla	333·48	70·72	404·20	5,167·38	+ 4,833·90	+ 4,763·18
	District total ..	13,152·90	2,137·21	15,290·11	56,354·99	+ 43,202·9	+ 41,064·88
..	6. Jammalamadugu ..	172·31	..	172·31	485·64	+ 313·33	+ 313·33
..	7. Proddatur	5,923·6	1,019·47	6,942·53	8,632·20	+ 2,709·14	+ 1,689·67
..	8. Cuddapah	7,215·67	3,158·33	10,374	7,943·39	+ 727·72	— 2,430·61
	District total ..	13,311·4	4,177·80	17,488·84	17,061·23	+ 3,750·19	— 427·61
	Canal total ..	26,463·94	6,315·01	32,778·95	73,416·22	+ 46,952·28	+ 40,637·27

4. Compared with the first crop figures of the previous fasli, all the five canal taluks of the Kurnool district show increase up to the end of December last, the total increase shown by the district being acres 43,202·9. Of the five taluks, the Nandikotkur taluk, which has the largest canal-commanded area, naturally shows the largest increase, namely, acres 19,515·14; Nandyal comes next with an increase of acres 9,396·7; Sirvel stands third with an increase of acres 8,487; then comes Koilkuntla with an increase of acres 4,833·90, and Ramallakot stands last with an increase of acres 969·98. The reason why the Ramallakot taluk shows comparatively a small increase is no other than that its canal-commanded area is very limited, being only a narrow strip of land situated between the canal on one side and the Tumbudra river itself on the other. In the Cuddapah district also, all the three canal taluks show increase, the increase in the Jammalamadugu taluk being acres 313·33, that in Proddatur acres 2,709·14, and that in Cuddapah acres 727·72, thus making a total increase of acres 3,750·19 for the whole district. Jammalamadugu is a nominal canal taluk with comparatively very limited canal-commanded area, and this is why that taluk shows the smallest increase, and the reason why the Cuddapah taluk shows less increase than Proddatur seems to be that its canal-commanded area with dry crops on is less than that of Proddatur, and Proddatur has consequently gone in for canal water for a much larger extent of dry crops than Cuddapah. The total increase shown by both the districts together is acres 46,952·28 or nearly acres 47,000 in round figures.

5. Compared with the *total* extents irrigated in fasli 1305 (1895–96) including both crops, the extents irrigated in the current fasli up to the end of December last show increase in all the canal taluks of both the districts excepting Cuddapah, and the reason why the Cuddapah taluk happens to show decrease here is no other than that its second crop extent coming on subsequent to December is generally large, being nearly as much as that of all the other seven canal taluks put together, and this taluk is consequently expected to more than make up the deficiency during the second-crop season. Looked at districtwar, the Kurnool district shows a total increase of acres 41,064·88, whereas the Cuddapah district shows a net decrease of acres 427·61, the total net increase under the entire canal being thus acres 40,637·27.

6. The total extent irrigated by the canal in the current fasli up to the end of December last comes to acres 73,416·22 against acres 32,778·95, the total extent irrigated by the canal in the last fasli including both crops; and to the above figure of the current fasli have yet to be added (*a*) second crops, such as dry season indigo, &c., yet to be raised and (*b*) extents yet to be discovered by the canal revenue inspectors in their inspections or "Azmoish" which is still in progress, and I think it would not be too much to expect the total extent for the current fasli to go up to acres 80,000, so that the current fasli will, in point of extent irrigated, be second to the

great famine year of 1876–77 (fasli 1286) when the total extent secured by the canal was acres 90,285, the highest figure ever reached as yet since the first opening of the canal for irrigation in 1863–64. The extent irrigated by the canal in 1891–92 (fasli 1301) which was acres 73,417 has hitherto been the second highest figure reached by the canal, but the current year's extent up to the end of December alone having already come up to acres 73,417 (a strange coincidence of figures) the year 1891–92 (fasli 1301) has certainly lost its position.

7. Had it not been for the light rains that fortunately fell in the latter part of November last, at least another 20,000 acres of dry crops, especially cholam, would have gone in for canal water this year from about Mutsumurri of the Nandikotkur taluk down to Rajoli of the Sirvel taluk, and the total extent irrigated by the canal reached a lakh of acres and thus exceeded even the great famine figure of 1876–77. The rains that fell in November, though light after all and not enough by themselves for the successful raising of any *fresh* crops, were found enough to save standing cholam and cotton crops, not already irrigated, without any further necessity of irrigation; and thus the ryots of several important canal villages between the two points of the canal mentioned above gave up the idea of using canal water in lots of cases where they had even prepared minor channels with the view of taking canal water. It may not be out of place to mention here that, when scarcity of water was felt for standing *wet* crops of the Proddatur and Cuddapah taluks about the middle of October last, it was found necessary by the lower sub-divisional officer to lay a temporary restriction on the issue of water for dry crops within the limits of his sub-division above Rajoli with the view of saving the said wet crops of the Cuddapah district; and, had this restriction which lasted for nearly twenty days from about the latter part of October not been placed, the Nandyal, Sirvel and Koilkuntla taluks would have irrigated a few more thousands of acres of dry crops, but then standing *wet* crops on over 10,000 of acres would have had to perish in the Proddatur and Cuddapah taluks of the Cuddapah district and any additional pecuniary advantage gained by the canal in higher up taluks would have been more than counterbalanced by loss of revenue to be sustained lower down as already stated in my letter, No. 389, dated the 5th December last, embodied in B.P., dated the 12th idem, No. 424.

8. Turning to villagewar particulars, it will be observed from the enclosed statement that, compared with the first-crop figures of fasli 1305 (1895–96), only two insignificant and nominal canal villages of the Ramallakot taluk, namely, Sunkesala and Kurnool, show some small decrease, whereas all the other eight villages of the taluk show good increase. In the Nandikotkur taluk similarly, only one insignificant canal village Boyarevula shows a nominal decrease of less than 2 acres, whereas all the other 44 villages including the three belonging to His Highness the Nizam exhibit good increase. In this taluk two villages Guntakandalu and Tangedantsa have newly come in for canal water this year. In the Nandyal taluk, two villages (Irnipad and Pulimaddi) show some small insignificant decrease, whereas all the other usual canal villages have shown good increase, and some seven villages have newly come in for canal water this year. These new villages are (1) Tirripad, (2) Koratamaddi, (3) Gadivemulu, (4) Kanalu, (5) Kottalu, (6) Bhímavaram and (7) Bollavaram. In the Sirvel taluk, four villages, namely, (1) Govindapalli, (2) Kobakandukur, (3) Rampalli and (4) Bodaram show some small decrease each; but, of these, the last-mentioned three have yet to be inspected by the canal revenue inspector. All the other usual canal villages of this taluk show good increase, and eight villages have newly come in for canal water this year from this taluk. They are (1) Dibaguntla, (2) Mullappa Chintakunta, (3) Pasarapad, (4) Julepalli, (5) Nagalavaram, (6) Vantivelagula, (7) Murtikristnapuram and (8) Gurupuramandinne. All the usual canal villages of the Koilkuntla taluk show good increase, and three villages of the taluk, namely, (1) Perayapalli, (2) Govindadinne and (3) Sarvoyapalli have newly come in for canal water this year. In the Jammalamadugu taluk of the Cuddapah district, Peddamudiyum is the only usual canal village which shows decrease, and the other usual canal village Jangalapalli shows good increase. (1) Kotalapalli, (2) Balapanagudur, (3) Uppalur and (4) Suddapalli are four new villages of this taluk which have taken canal water this year. The reason why

Peddamudiyum shows decrease has not been stated by the canal revenue inspector in the statement submitted by him. It will, however, be ascertained at the time of the water-rate settlement of the taluk. In the Proddatur taluk six villages, that is, (1) Kanagudur, (2) Annalur, (3) Idimadulla, (4) Shrotriyum Nerravada, (5) Shrotriyum Morrayapalli and (6) Pichichipad show small and insignificant decreases, whereas all the other usual canal villages show some good increase, and Nélatur is a village which has newly come in for canal water this year from this taluk. In the Cuddapah taluk there are altogether 27 canal villages this year; and, of these, 15 show nominal decrease, whereas all the other usual canal villages show increase, and Thollaganganapalli is a village of this taluk which has newly taken canal water this year for a small extent of nearly 6 acres.

The heavy increase appearing in the case of most of the villages in the enclosed statement is, as already stated above, due to the failure of rains, and consequent extensive demand for water for dry crops; and decreases, wherever they appear, are generally small and insignificant and, as such, call for no remarks.

Ratewar comparison of the current year's irrigation up to the end of December with the actual irrigation of fasli 1305 (1895–96).

9. The subjoined statement compares the irrigated extents of the current fasli down to the end of December last with the actual figures of the last fasli 1305 (1895–96) according to crops of different rates:—

District.	Taluk.	First-class garden crops such as sugar-cane, &c., rate Rs. 6.						First-crop paddy and turmeric, rate Rs. 4.						"Bagayet" or garden crops including second-crop paddy, rate Rs. 3.					
		Fasli 1305.			Fasli 1306 up to the end of December.			Fasli 1305.			Fasli 1306 up to the end of December.			Fasli 1305.			Fasli 1306 up to the end of December.		
		On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool.	1. Ramallakot ..	171·70	0·70	172·40	126·36	2·86	129·22	1,202·62	15·71	1,218·33	1,329 62	59·34	1,388·96	573·73	11·64	585·37	330·68	18·93	349·61
	2. Nandikotkur ..	17·85	0·18	18·03	30·26	1 90	32·16	3,602·96	53·93	3,656·89	3,421·39	53·12	3,474·51	781·98	69·43	851·41	1,299·72	45·38	1,345 10
	3. Nandyal	2·72	0·48	3·20	4·98	0·90	5·88	1,859·44	36 28	1,895·72	2,091·35	48·48	2,139·83	391·14	53·06	444·20	510·04	111·0	621·04
	4. Sirvel	7·18	0·50	7·68	3·16	..	3·16	1,125·22	32·12	1,157·34	1,063·22	17·52	1,080·75	382·27	75·96	458·23	1,040·89	71·55	1,112·44
	5. Koilkuntla ..	2·34	0·13	2·47	2·34	..	2·34	187·56	5·7	192·63	213·82	4·74	218·56	90·17	7·24	97·41	94·0	2·75	96·75
	District Total ..	201·79	1·99	203·78	167·10	5·66	172·76	7,977·80	143·11	8,120·91	8,119·41	183·20	8,302·61	2,219 29	217·33	2,436·62	3,275 33	249·61	3,524·94
Cuddapah.	6. Jammalamadugu ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29 68	7·44	37·12
	7. Proddatur	29·38	..	29 38	23·39	4·30	27·69	2,734·75	46·15	2,780·90	3,038·52	75·45	3,113·97	2,738·42	218·63	2,957·05	2,043·66	203·31	2,246·97
	8. Cuddapah	15·47	0·71	16·18	31·10	..	31·10	5,615·83	128·62	5,744·45	4,570 40	90·49	4,660·89	3,704·71	143·79	3,848·50	1,862·07	162·04	2,024·11
	District Total ..	44·85	0·71	45·56	54·49	4·30	58·79	8,350·58	174·77	8,525·35	7,608·92	165·94	7,774·86	6,443·13	362·42	6,805·55	3,935·41	372·79	4,308·20
	Canal Total ..	246·64	2·70	249·34	221·59	9·96	231·55	16,328·38	317·88	16,646·26	15,728·33	349·14	16,077·47	8,662·42	579·75	9,242·17	7,210·74	622·40	7,833·14

District.	Taluk.	Mundla or tailed coarse paddy, rate Rs. 2.						Dry crops, rate Re. 1.						Total.					
		Fasli 1305.			Fasli 1306 up to end of December.			Fasli 1305.			Fasli 1306 up to end of December.			Fasli 1305.			Fasli 1306 up to end of December.		
		On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool.	1. Ramallakot ..	..	..	..	..	..	..	136·42	7·04	143·46	726·7	63·92	789·99	2,084·47	35·09	2,119·56	2,512·73	145·5	2,657·78
	2 Nandikotkur ..	185·69	8·18	193·87	259·98	4·46	264·44	737·76	336·53	1,074·29	18,864·52	635·39	19,499·91	5,326·24	468·25	5,794·49	23,875·87	740·25	24,616·12
	3. Nandyal	558·45	32·21	590·66	813·36	39·53	852 89	296·18	201·38	497·56	6,713·79	1,731·51	8,445·30	3,107·93	323·41	3,431·34	10,133·52	1,931·42	12,064·94
	4. Sirvel	836·55	127·83	964·38	1,758·32	32·83	1,791·15	532·94	419 95	952·89	7,312·1	549·26	7,861·27	2,884·16	656·36	3,540·52	11,177·61	671·16	11,848·77
	5. Koilkuntla ..	11·75	3·47	15·22	36·60	..	36·60	45·22	51·25	96·47	3,486·5	1,327·08	4,813·13	337·04	67·16	404·20	3,832·81	1,334·57	5,167·38
	District Total ..	1,592·44	171·69	1,764·13	2,868·26	76·82	2,945·08	1,748·52	1,016·15	2,764·67	37,102·44	4,307·16	41,409·60	13,739·84	1,550·27	15,290·11	51,532·54	4,822·45	56,354·99
Cuddapah.	6. Jammalamadugu ..	12·95	..	12·95	8·74	..	8·74	153·36	6·0	159·36	354·64	85·14	439·78	166·31	6·0	172·31	393·6	92·58	485·64
	7. Proddatur ..	89·99	0·38	90·37	6·6	..	6·6	945·94	138·89	1,084·83	2,626·71	610·80	3,237·51	6,538·48	404·05	6,942·53	7,738·34	893·86	8,632·20
	8. Cuddapah ..	7·69	..	7·69	..	..	..	618·23	138·95	757·18	1,047·49	179·80	1,227·29	9,961·93	412·07	10,374·0	7,511·06	432·33	7,943·39
	District Total ..	110·63	0·38	111 01	14·80	..	14·80	1,717·53	283·84	2,001·37	4,028·84	875·74	4,904·58	16,666·72	822·12	17,488·84	15,642·46	1,418·77	17,061·23
	Canal Total ..	1,703·07	172·07	1,875·14	2,883·06	76·82	2,959·88	3,466·05	1,299·99	4,766·04	41,131·28	5,182·90	46,314·18	30,406·56	2,372·39	32,778·95	67,175·0	6,241·22	73,416·22

It will be observed from this statement that, under the Rs. 6 rate, the Jammalamadugu taluk, which is an insignificant and nominal canal taluk, has no figures at all and that the variations are rather small in all the other canal taluks except Ramallakot where there appears a decrease of about 40 acres. This decrease is due partly to the extent under sugar-cane for this year being smaller than the last year's extent in consequence of some want of water felt towards the close of the last fasli at the time of sugar-cane sowings, and partly to certain mango topes which applied for canal water last year during the second-crop season and are thus included in the last year's figures not having as yet applied for water this year. Under the Rs. 4 rate, the Jammalamadugu taluk has again no figures at all; and, of the remaining seven canal taluks, Nandikotkur, Sirvel and Cuddapah alone show decrease, but this decrease seems only nominal for the most part, and is expected to be almost made up when the canal Revenue Inspectors of the taluks complete their "azmoish" or inspection work which is in progress. Under the Rs. 3 rate, the extent against the Koilkuntla taluk is almost equal to that of the last year; and, of the remaining seven taluks, Ramallakot, Proddatur and Cuddapah alone show decrease; but even in the case of these taluks the decrease is expected to be made up during the second-crop season by means of second-crop paddy in the Ramallakot taluk and through garden or "Bagayet" crops such as dry season indigo, &c., in the case of the Proddatur and Cuddapah taluks. There is no coarse or dry paddy at all in the Ramallakot taluk and so it has no figures to show under the Rs. 2 rate. The remaining four taluks of the Kurnool district show increase under this rate, whereas all the three canal taluks of the Cuddapah district show decrease. There is, however, the point for consideration that coarse or dry paddy is not an important crop at all in the canal villages of the Cuddapah district where the choice of the ryots is generally in favour of good paddy and garden or "Bagayet" crops; and even last year the total extent of coarse paddy in the Cuddapah district was only 111 acres. Under dry crops or the Re. 1 rate, all the eight canal taluks show increase, the increase in the case of the Nandikotkur, Nandyal, Sirvel, Koilkuntla and Proddatur taluks being particularly heavy. It will be observed that, taking both the districts together, the total increase under the Re. 1 rate was over 41,500 acres down to the end of December last, and to this figure some more pretty large area will, I feel sure, have to be added when the canal Revenue Inspectors complete their "azmoish" or inspections, especially in the Nandikotkur, Nandyal, Sirvel and Koilkuntla taluks.

10. I think it would be unfair to the canal if, before closing my remarks on the current year's irrigation, I omit to mention that, in addition to the total extent of acres 73,416·22 directly irrigated as particularized in the enclosed statement, the canal have supplied water to another 5,000 acres of paddy raised under canal-fed tanks in both the districts which, unlike in previous years, almost exclusively depended on the canal this year for their supply, their natural sources of supply having put in little or no water into them.

Introduction of experimental crops into the Kurnool district canal villages.

11. Referring to the latter part of paragraph 11 of my report for the half-year ending 30th June last, No. 234, dated the 21st September 1896, wherein I promised to ascertain and report the pecuniary outturn of certain dry season indigo experiments carried on in the Nandikotkur, Nandyal and Sirvel taluks in fasli 1305 (1895–96), I beg to submit that the crop raised by two ryots on about 13 acres in Yallur of the Sirvel taluk finally proved to be the best case for the year and yielded as much as nearly Rs. 60 per acre for one cutting, whereas the successful crop on 2 acres of Sambavaram of the same taluk is said to have gone for Rs. 20 an acre. In Kothapalli, hamlet of Nandyal, the successful crop was sold by the ryots to one Hayathkhan of Nandyal from Rs. 20 to Rs. 30 an acre according to density of crop; and two ryots of Nagatur of the Nandikotkur taluk sold their crop, while yet not fully grown, for Rs. 10 an acre. In all the above cases, the indigo stumps left were used by the ryots as manure for the succeeding paddy and other crops.

12. Out of the Rs. 1,000 advance kindly sanctioned by the Board in its Proceedings, dated 9th September 1896, Mis. No. 4355, cummin seed fit for sowing purposes was purchased for nearly Rs. 650 during the half-year under report; and, of the seed

purchased, about 100 maunds sufficient for 100 acres has been distributed to 187 ryots of fifty-nine villages; and, so far as information has been gathered, about 100 of the individuals who received the seed appear to have actually tried the experiments promised on about 75 acres in all. The reason why a large proportion of the recipients of the seed failed to carry on the experiments promised by them is no other than the unfavourable character of the season. At the time of the distribution of seed, people had hopes of rain yet and the season did not assume that severe and threatening aspect it subsequently did; and, when they noticed an unfavourable change in the season, such of the recipients of seed as had limited holdings under the canal gave up the idea of carrying on the promised experiments, and naturally went in for fodder and grain crops such as cholam, &c. Cummin seed crop raised is still standing on the ground in some cases, and in others it has just been removed. In some cases the crop raised has been attacked with disease; but, at the same time, there are also other cases in which the crop is in excellent condition, and good and highly encouraging outturns are expected. The experiments carried on this year in Kothapalli, hamlet of Nandyal, in Regadigudur, Chelimilla, Pamulapad, Velpanur, Vellala, Virapuram, Maravakonda, Allur, Maddigatla, Tarigoppula and Padidunpad of the Nandikotkur taluk have already produced good impressions on the minds of ryots about the short duration and the economical and remunerative character of the crop; and, although the precise outturns of all the successful cases are not yet known and must, therefore, be reserved for a future report, it seems to my mind that this year's experiments will also tend to multiply the number of experiments to be carried on in the coming year at different points of the canal in the Kurnool district, just as the few first experiments of last year (fasli 1305) have increased the current year's experiments about sixfold. Had the season been normal, many more experiments would certainly have been tried and the extent involved would also have been much larger; and it seems even now gratifying that, notwithstanding the adverse character of the season, so many as about 100 individuals have carried on the promised experiments this year. Steps have, of course, been taken to recover the value of the seed distributed from its recipients, and credit back the amount to the treasury before the close of the current official year.

13. As regards dry season or second crop indigo, the time for putting down that crop is only just at hand, and it is not precisely known in how many places in the Kurnool district it will be tried this year under the canal. Considering, however, the facts (*a*) that, owing to the adverse character of the season, the inclination of the agricultural classes is almost exclusively for food and fodder crops, and (*b*) that even rain-sown standing indigo of the current fasli had, in several places under the canal, been deliberately spoiled by ryots in the Kurnool district and grain crops put in on such lands since October last, I do not think we can expect much in the direction of dry season indigo experiments this year. I am, however, sanguine that the ryots of Kothapalli, hamlet of Nandyal, will not give it up even in a bad year like this, and I actually saw some of them preparing their lands for dry season indigo on my way up the other day. I expect some ryots of Govindadinne of the Koilkuntla taluk also to go in for dry season indigo this year.

14. In addition to cummin seed and dry season indigo, two "bagayet" crops adopted from the Cuddapah district portion under the canal and introduced into the canal taluks of the Kurnool district, the cultivation of ground-nut as an experiment has also been introduced into certain block lands of the Nandikotkur and Proddatur taluks during the half-year under report. This crop which was nowhere under the canal previously has been tried this year on two patches of about 0·75 acre each on the Pamulapad and Bhanumukkala blocks of the Kurnool district, and on about half an acre on the Madur block of the Proddatur taluk, Cuddapah district. The crops on the two patches of the Kurnool blocks have come on well and are in good condition. I saw them but ten days ago on my way up. The crop tried on the Madur block is reported to have been attacked with disease; but it was sown rather late some time about the end of October, and this is presumably why it is unhealthy. I feel sure that this ground-nut crop will easily spread in the canal villages of the Kurnool district if only

endeavours are maintained in that direction by the local revenue officers till the crop becomes a settled and recognised crop. No doubt, cummin seed is a more remunerative and less standing crop than ground-nut, but it is a very delicate crop and one often subject to diseases. Ground-nut, on the other hand, seems to be a comparatively hardy crop requiring less tillage and preparation of land as also less of manure, and it thus strikes me that it will spread under the canal in the Kurnool district with greater speed than even cummin seed or dry season indigo.

15. To my humble mind, introduction of fresh crops seems to be a subject which will have to be worked at patiently and with persistence and not hurried through. In the first place, it is not an easy matter to induce a conservative and an illiterate class of ryots like those we generally find in the Kurnool district to take to and try fresh and strange crops; and, in getting fresh crops tried, we have also to make some allowance for the ryots' want of *practical* experience in the treatment of the crops raised and consequent failures and short outturns here and there. Of course, all possible instruction is being given them as to how to raise the experimental crops told, but what they thus learn from word of mouth or from printed notices is, after all, only theoretical for them till they themselves try; and it cannot be as good a guide to them as practical experience gained by actually raising the crop once or twice. In cases where more than one individual have tried cummin seed cultivation this year in one and the same village, and where the crop of one individual has come out decidedly more successful than that of another, the ryots have already begun to see for themselves in what particular or particulars the owner of the defective crop has erred or failed, and it is practical experience of this kind that will surely help them.

I feel sure that all the three crops introduced will gradually spread and take root in the canal villages of the Kurnool district, but it would be necessary for the local officers to take some special interest in the matter for a few years till, as I have already stated above, the crops become settled and recognized crops.

16. Of the extent of acres 1,687·19 reported as granted under the block rules down to the end of June 1896, acres 235·55 have since been relinquished by Messrs. Ganapathy Rungasamy & Co. of Madur on the ground that acres 164·78 of it have been pronounced unirrigable by Public Works Department officers since their taking up the block, and that no means of irrigation have been provided for the remaining acres 70·77; and during the half-year under report sanction has been accorded for the grant of fresh blocks to the extent of acres 156·17 so that the net total extent granted under the block rules down to the close of December last is acres 1,607·81 as particularised in the margin. Of the blocks mentioned in the margin, the first three of the Kurnool district and the first three of Cuddapah are in working order. It is a local ryot of Pudúr that took up block No. 1 of the Kurnool district; and in cases Nos. 2 and 3 of Kurnool, some families from the Tinnevelly and Tanjore districts have come and settled themselves down, not far from their blocks, and are working on their respective blocks. The holders of block No. 2 have purchased five pairs of bullocks and work with their own bullocks, whereas the holder of block No. 3 of Kurnool has been working with hired bullocks. Blocks Nos. 4 and 5 of Kurnool have only been recently granted and no work has as yet been begun on them. It is an Iyer from Tinnevelly that holds block No. 6 of Kurnool. He came and spent about Rs. 150 in levelling the block, but did not as yet raise any crop or crops on it. Of the Cuddapah district

District.	Village.	Extent.
1	2	3
		ACS.
Kurnool	1. Pudur	10·20
	2. Pamulapad	209·20
	3. Bhanumukkala	270·71
	4. Do.	17·56
	5. Do.	17·63
	6. Pesaravoyi	71·35
	District Total ..	596·65
Cuddapah	1. Madur	335·36
	2. Mudukur	121·51
	3. Bhadripalli	250·04
	4. Thudumuladinne	81·15
	5. Thawaripalli	102·12
	6. Thudumuladinne	14·71
	7. Yetur	106·27
	District Total ..	1011·16
	Grand Total ..	1607·81

blocks, the holders of Nos. 1 and 2 have come and settled themselves down near their blocks and are working with their own pairs of bullocks. The holders of block No. 3 come and stop in Mudukur during working seasons, and have not as yet become permanent residents near their block. They work with hired bullocks. The holders of blocks Nos. 4 and 5 of Cuddapah, to whom I have already referred in paragraph 16 of my report No. 234 for the half-year ending 30th June last, have neither relinquished their blocks, nor have they come and begun work on them. Block No. 6 of Cuddapah is one granted for fasli 1306, and the holder has not yet come from Tinnevelly and begun work. He has, however, written to say that he would keep the block. Block No. 7 of Cuddapah has only been recently granted and is to run on from the next fasli 1307 (1897–98). Besides the blocks already granted five block applications to the total extent of acres 278·67 have since been received and are under inquiry with the Tahsildars concerned, and they will be disposed of in due course.

17. The following table shows the approximate extents as yet cultivated this year with different kinds of crops in the case of the six blocks (three of Kurnool and three of Cuddapah) on which work has been going on, and dry season indigo is expected to be tried on some more extent by some of these block holders. Paddy alone has been harvested in the case of the three Kurnool blocks, and the results are reported to be specially encouraging on the Pudúr and Pamulapad blocks, and ordinary on the Shanumakkalu block where a large portion of the crop was unfortunately attacked with disease. Cummin seed has just been removed from the Pamulapad block and the outturn appears promising, although the seed has not yet been thrashed out. All the other crops are still standing on the ground. In the case of the Cuddapah district working blocks, korra crop alone is stated to have as yet been harvested and the yield is said to be about one-fourth. All the other crops are still on the ground, but are stated to be in good condition on the whole. Writing on the 18th January last, Mr. Rungasami Iyer, the working share-holder of Messrs. Ganapathy & Co. of Madur, states: "I am glad to inform you that the transplanted experimental paddy is successful in the place where the land has been manured and ploughed last year. So I mean cultivating 100 acres paddy for the next year;" and it may not be out of place to mention here that the land on which he tried the experiment is pure black soil land, about the turning of which into successful paddy land the local ryots seem to have hitherto entertained doubts:—

District.	Number of block and village.	Paddy.	Turmeric.	Ragi.	Bariga.	Coriander.	Cummin seed.	Cholam.	Cotton.
1	2	3	4	5	6	7	8	9	10
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool ..	1. Pudúr	4·	..	..	..	..	..	..	..
	2. Pamulapad	12·	..	..	..	1·	2·50	20·	..
	3. Bhanumukkalu ..	30·	..	..	..	..	..	..	..
Cuddapah ..	1. Madur	29·10	..	6·	4·	..	10·	85·22	55·72
	2. Mudukur	2·	·70	..	..	8·6	7·77	18·38	..
	3. Bhadripalli	3·50	·48	..	59·9	..	..	25·4	..
	Total ..	80·60	1·18	6·	63·9	9·6	20·27	148·64	55·72

District.	Number of block and village.	Arika.	Korru.	Kusuma.	Ground-nut.	Bengal gram.	Horse gram.	Chilly.	Ulundu or black gram.	Total.
		11	12	13	14	15	16	17	18	19
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool ..	1. Pudúr	..	..	..	..	..	..	..	..	4·
	2. Pamulapad	..	..	..	·75	2·	10·	·50	10·	58·75
	3. Bhanumukkalu ..	..	..	..	·75	..	10·	..	5·	45·75
Cuddapah ..	1. Madur	24·89	..	31·94	·50	11·78	56·80	..	..	315·95
	2. Mudukur	7·73	13·30	..	..	..	..	..	..	57·94
	3. Bhadripalli	..	..	..	..	..	..	..	..	88·11
	Total ..	32·62	13·30	31·94	2·	13·78	76·80	·50	15·	570·50

18. Since the submission of the last half-yearly report, the undermentioned applications for fresh sluices and channels have been received from ryots of village at different points of the canal with offers to bring the extents specified under permanent wet cultivation should the sluices and channels applied for be provided; and, of course, the applications have all of them been forwarded to the Executive Engineer for favourable consideration and early orders. In almost all the cases the applicants express their willingness to take canal water from the coming fasli 1307 (1897–98); and there is no doubt whatever that, in many of these cases, the protection derived from the canal this year by villages already under its influence has taught the applicants a lesson and convinced them what a precious thing it is to have lands commanded by the canal and how unsafe it must be, on the other hand, to rely exclusively on rains. I hope the Public Works Department will, wherever feasible, comply with the applicants' requests during the present dry season and before the next rains begin:—

District.	Taluk.	Village.	Applicants.	Acreage promised to be permanently brought under wet cultivation.
				Acs.
Kurnool ..	Nandyal ..	Brahmanapalli ..	Annapu Reddi and others	120·30
	Do. ..	Guntanala	Gali Ramanna and others	20·
	Do. ..	Thogarchedu ..	Timmareddi and others	65·71
	Do. ..	Mulasagaram, hamlet of Nandyal.	Balakondareddi and others	60·
	Koilkuntla ..	Joladarasi	Narayana Reddi and others	56·
	Do. ..	Bhimunipad ..	Subbareddi and others	60·
	Do. ..	Gubagundum Jambuladinne.	Sanjeeva Reddi and others	100·
	Do. ..	Lingala	Kurnam Venkatasubbiah and others ..	80·15
Cuddapah ..	Proddatur ..	Vasudevapuram, hamlet of Velavali.	Boddi Venkata and others	40·
			Total ..	602·16

19. At the instance of the Superintending Engineer of the circle, I have been desired to assist the special Sub-divisional officer of the Public Works Department by preparing these preliminary fieldwar lists for all the canal villages of both the districts, and I began the work about the beginning of the current fasli; but, as the present adverse season and extensive demand for and use of canal water and consequent necessity for supervision of distribution of water under common and important channels and personal check and inspection of the irrigated areas here and there at important points have drawn me away from and did not allow time for that branch of work from about the middle of October last, I am sorry I have not been able to prepare the preliminary fieldwar lists required by the Public Works Department for more than 46 villages in all or about one-fourth the total number of villages commanded by the canal; and I think that the preparation of similar lists for all the other canal villages would itself require full six months' time, as it is not only the preparation of mere lists that is necessary, but also inspection of all the fields to be mentioned in the lists.

Preparation of lists of fields fit for charge of the famine insurance rate, &c., in connection with the next re-settlement.

20. The total term of three years already sanctioned for the special office expires on the 15th March next; and, unless it be thought necessary to retain the office for a year more or so in consideration of (*a*) the other lists that have yet to be prepared and are referred to in the immediately preceding paragraph and (*b*) the settlement of the current fasli canal water-rate of the remaining six canal taluks excepting Proddatur and Cuddapah, the jamabandi of which is to be conducted by the Collector himself, I humbly venture to repeat suggestion (*c*) made by me in paragraph 10 of my report No. 26, dated the 7th February 1896, embodied in G.O., No. 343, Revenue, dated the 21st July 1896, communicated with B.P., Mis. No. 4147, dated 24th August last. It will be observed that the above suggestion was to the effect that, in case the special office is done away with, it will be advantageous to entrust the canal charge of the entire length of the canal in the Kurnool district to one officer, that is, to the Head-quarter Deputy Collector of the Kurnool district, and similarly the canal charge within the limits of the Cuddapah district to the Head-quarter Deputy Collector of Cuddapah, giving each of these officers an additional temporary clerk on Rs. 25 to look after canal work. The various reasons which have induced me to put forward the above suggestion as one both economical and advantageous have been fully set forth in paragraph 10 of my report No. 26 referred to above, and, I therefore, think it redundant to reiterate them here. I hope, however, that my remarks on the subject in the said paragraph will kindly be perused and considered before the question is finally disposed of one way or the other. As regards the objection that the entrusting of canal work to the Head-quarter Deputy Collectors may cause inconvenience to parties in criminal cases, &c., by reason of the officers' absence in remote taluks, I humbly beg to submit that my own humble impression is that, as long as there are the Special Canal Revenue Inspectors and the Tahsildars to assist them in all miscellaneous canal matters, it will not be necessary for the Head-quarter Deputy Collectors to visit the canal taluks other than those comprising their own divisions more than once or twice at the most in the year; and each such visit need not take more than ten days or so. In the Kurnool district the entire length of the canal is about 145 miles as already stated by me; and of this, the Head-quarter Deputy Collector's division itself extends as far down as about the 90th mile stone; and again about the last 15 miles length of the Kurnool district portion of the canal happens to pass through a tract not important in an irrigation point of view. In the case of the Cuddapah district, Jammalamadugu is a nominal and an insignificant canal taluk hardly requiring any supervision, and the few canal villages of the Proddatur taluk which adjoins the Cuddapah taluk can, I think, be easily visited by the Head-quarter Deputy Collector of Cuddapah once or twice in the year without causing any real inconvenience to his other work in Cuddapah. Should any doubts be still entertained as regards the feasibility of the above suggestion, it strikes me that it may at least be given a few years' trial in case it may be decided to do away with the special office. In conclusion, I beg to add that I hope I will kindly be excused for having put forward the above suggestion again, as I have ventured to repeat it (*a*) in the firm belief that it will serve the interests of the canal better to keep its revenue charge in the hands of one officer for each district than to divide it again as before, and (*b*) for the following chief reasons among others:—

The Special office.

(1) That the arrangement suggested will secure economy, saving nearly all the expenditure of a special office.

(2) That it will produce in the minds of canal ryots a healthy and salubrious impression that the arrangement made by Government for the supervision of canal work is not of a temporary but of a permanent and standing nature.

(3) That the Nandikotkur taluk, which is the most important canal taluk in the Kurnool district containing more than half the canal-commanded area of the district as shown in the margin, contains, for the most part, the best of the canal-commanded lands and is thus, in fact, the taluk on which the future of the canal mainly depends and that, such a taluk forming his own division, the Head-quarter Deputy Collector must naturally be in a position to have the cultivation of experimental crops, which mean a good deal indeed for the future of the canal, carried on in the taluk with far greater effect than can be possibly the case under any other arrangement.

Taluk.	Approximate extent commanded by existing distributaries.
	Acs.
1. Ramallakot	2,900
2. Nandikotkur	51,500
3. Nandyal	14,900
4. Sirvel	18,900
5. Koilkuntla	6,300
Total ...	94 500

21. In conclusion, I beg to submit that the subject referred to in paragraph 20 is one requiring the favour of very early orders.

Endorsement by the Acting Collector of Kurnool, dated 26th February 1897, No. 'N'.

Forwarded.

2. The Deputy Collector's proposal to abolish the special office and to assign the whole of the canal work to the Head-quarter Deputy Collector does not commend itself to me for the reasons given in this office endorsement, Ref. on Perdl. No. 25-Ver., dated 28th February 1896, embodied in B.P., dated 7th May 1896, No. 91. Considering the state of the season and the heavy work devolving in consequence on the Divisional Officers, the further retention of the Deputy Collector for one year, at all events, seems advisable.

Endorsement by A. C. TATE, Esq., Collector of Cuddapah, dated 27th February 1897.

Forwarded.

2. Regarding paragraph 16, I beg to invite the attention of the Board to this office Ref. on Cur. No. 5843-Rev., dated 11th September 1896. The block of 100·27 acres of Yetur entered in item No. 7 has been relinquished on 31st August 1896.

3. I do not approve of the Head-quarter Deputy Collector being placed in charge of the canal in Proddatur and Jammalamadugu.

Resolution—dated 14th May 1897, No. 368.

With the endorsements read above, the Collectors of Kurnool and Cuddapah forward the report of the Special Deputy Collector in charge of the Kurnool-Cuddapah canal, for the half-year ending 31st December 1896.

2. The Deputy Collector was in camp for 165 out of 184 days during the half year. For the first three months of the period, he was chiefly engaged in preparing lists of lands which may be permanently transferred to wet, and of those on which an insurance rate may be imposed at the ensuing re-settlement. The rest of the period was devoted —

(1) to making arrangements with the Public Works Department to ensure a due regulation of water-supply to the two districts;

(2) to seeing that, in respect of villages served by important common distributaries, the ryots of villages higher up did not take water to the prejudice of those lower down; and

(3) to inspecting the irrigated areas of certain important canal villages of the Kurnool district, in which water was very largely taken for the irrigation of dry crops.

3. The tables appended to paragraphs 3 and 9 of the Deputy Collector's report show that the extent irrigated up to the end of December last was much larger than the first crop area recorded in the previous year in all the canal taluks of both the districts, the total increase being acres 46,952. Even as compared with the total extent under both the crops irrigated in fasli 1305, the cultivated area during the half year under report exhibits an increase in all the taluks except Cuddapah. In the Cuddapah taluk, however, it is stated that the second crop cultivation is generally very large being in fact equal to that in all the other seven taluks put together, and that the deficiency noticed above may therefore be expected to be more than made up during the second crop season. On the whole, there was marked increase in the year so far as the inspection already made is concerned; and the inspection by canal Revenue Inspectors, which is still in progress, and second crops, such as dry season indigo which may be raised hereafter, will doubtless add to this increase. The total irrigated area this year will, according to the Deputy Collector's estimate, go up to 80,000 acres, the increase being wholly under dry crops irrigated owing to the unfavourable character of the season; and the current year's figure will be next only to that reached in the great famine year 1876–77, in which the total irrigated area amounted to 90,285 acres, the highest figure on record. The variations in the different taluks are fully explained in paragraphs 4 and 5 of the Deputy Collector's report.

4. Besides the 73,416 acres directly irrigated as stated above, the canal has supplied water to 5,000 acres of paddy raised under canal-fed tanks in both the districts, which, owing to their natural sources having afforded them little or no supply, had to depend almost exclusively on the canal this year.

5. Out of the sum of Rs. 1,000 placed at the disposal of the Deputy Collector for the purchase of cummin-seed to be supplied to ryots for experimental cultivation, as per B.P., dated 9th September 1896, Mis. No. 4355, nearly Rs. 650 were spent on the purchase of the seed. One hundred maunds were distributed to 187 ryots in 59 villages, of whom 100 ryots cultivated an extent of 75 acres. Many more would have tried the experiment, were it not for the unfavourable character of the season. The experiments made so far seem to promise well.

6. The experimental cultivation of ground-nut was successfully carried out on two patches of 75 cents each and the Deputy Collector thinks that this crop is likely to be very largely grown in the canal-commanded area, if the local revenue officers exert themselves in this direction, as the crop is more hardy than the cummin-seed and requires "less tillage and preparation of land as also less manure."

Ground-nut is very extensively grown in the South Arcot district and the Deputy Collector may obtain from the Collector of that district useful information about the cultivation of this crop for dissemination among the ryots.

With reference to the Special Deputy Collector's remarks in paragraphs 14 and 15 of his report to the effect that if the cultivation of special crops in the canal village is to prove a success, the local revenue officers should take some special interest in the matter, the Collectors of Kurnool and Cuddapah will be requested to consider the advisability of appointing as Revenue Inspectors, when vacancies occur, a few passed students of the Agricultural College and posting them to canal firkas.

7. During the half year under review, about 236 acres of land taken up under the block rules were relinquished, as nearly three-fourths of this area were pronounced to be unirrigable by the Public Works Department; and, as no means of irrigation had been provided for the remainder, including 156 acres granted during the half year, the total extent of land assigned under the block rules up to 31st December last was 1,608 acres. Three blocks in each of the two districts of Kurnool and Cuddapah aggregating 490 and 707 acres, respectively, are reported to be under cultivation, 571 acres having been cultivated in them with different crops as shown in the margin. It is satisfactory to note that ryots from Tanjore and Tinnevelly continue to take up more lands under the rules.

	Acs
Cholam ...	149
Paddy ...	81
Horsegram ...	77
Bariga ...	63
Cotton ...	56
Arika ...	33
Kusuma ...	32
Other crops ...	80
Total ...	571

8. Paragraph 18 of the Deputy Collector's report will be communicated to the Chief Engineer for Irrigation for consideration.

9. The retention of the Special Deputy Collector for a further period of one year has been approved by Government in its order Mis. No. 1801, Revenue, dated 3rd April 1897. It would be difficult to find an officer who would take more interest in this work than the Special Deputy Collector.

10. The Board would desire again to call attention to the figures quoted in its Proceedings, No. 40 dated 19th January 1897. The value of crops saved by the canal in the present year was then estimated at 17·12 lakhs, and the figure is likely to be exceeded when the full returns come in. It is a point which cannot, until recognised, be too much insisted on, that irrigation works should not be valued for the

mere interest which they bring in on the capital expenditure; their value as ensuring food-crops and protecting large tracts of country from famine, thereby diminishing the expenditure on famine relief, is an important feature too often overlooked.

(True Copies and Extract.)

(Signed) R. V. SRINIVASIAR,
Secretary.

To the Secretary to Government, Revenue Department,
with one enclosure (to be returned).
" Collector of Kurnool.
" " of Cuddapah.
" Special Deputy Collector, Kurnool-Cuddapah Canal.
" Chief Engineer for irrigation.

Order—No. 546, Revenue, dated 9th July 1897.

Irrigation No. 2. Recorded.

(True Extract.)

(Signed) G. STOKES,
Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement,
Land Records and Agriculture), with enclosure.
" the Public Works Department.

Exd. Shaik Karim.

60 Copies.

Government {1897} of Madras.

REVENUE.

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Regd. } *Spare copies*

G.O., No. 546, 9th July 1897.

JULY.

Kurnool-Cuddapah Canal.

Recording Board's Proceedings submitting to Government report of the Special Deputy Collector, —, for the half-year ending 31st December 1896.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 14th May 1897, No. 368 :—

Read—the following letter from M.R.Ry. K. SUBBARAYUDU PANTULU Garu, Rao Bahadur, Canal Special Deputy Collector, to the Secretary to the Commissioner of R.S., L.R. and Agri. (through the Collectors of Kurnool and Cuddapah), dated Padidempad, 15th February 1897, No. 25 and Endorsements thereon by the Collectors of Kurnool and Cuddapah, dated 26th and 27th February 1897, respectively :—

Referring to the latter part of paragraph 3 of G.O., No. 964, Revenue, dated 7th November 1893, communicated with B.P., dated 16th February 1894, No. 87, I have the honour to submit the following report for the half-year ending 31st December last.

Movements of the Special officer during the half year.

2. From the beginning of July till about the first week of October last, I was engaged mainly in the preparation of the preliminary lists of canal-commanded lands (*a*) to be permanently transferred to wet and (*b*) fit to be recommended for imposition of the famine insurance rate at the next re-settlement, the said lists having been required by the Public Works Department in connection with paragraph 4 of G.O., No. 18, Revenue, dated 18th January 1896; and, as scarcity of water for the standing wet crops of the Cuddapah district depending on the canal began to be felt in the lower reaches of the canal in consequence of the ryots of the higher up canal taluks of the Kurnool district having simultaneously rushed in for canal water for their dry crops seeing the north-east monsoon fail, I was, for a month from about the middle of October last, chiefly engaged (*a*) in arranging with the Public Works Department officers in charge of the canal for the due regulation of water between the two districts so that the standing wet crops of the Cuddapah district might not be lost, and (*b*) in looking after the distribution of water under important common distributaries especially in the upper sub-division so that the ryots of higher up villages might not take undue advantage of their favourable situation to the detriment of standing wet and other crops in the lower down villages, as the ryots of different villages under all such common distributaries were found to be constantly disputing at the time. Towards the end of November, there was fortunately some light rainfall, and, with this, the rush for water for dry crops in the Kurnool district almost subsided; and, from about the beginning of December, I was chiefly busy with the check and inspection of the irrigated areas of certain important canal villages of the Kurnool district in which there has been very extensive dry crop irrigation this year. In all my tours through the Kurnool district portion under the canal, I have, of course, taken care to instruct and induce the Kurnool district canal ryots to try experiments in the cultivation of cummin seed, &c., and in all, 165 out of 184 days have been spent by me out of head-quarters during the half year under report.

Irrigation in the current year.

3. I beg to enclose a villagewar statement showing the extents actually canal irrigated in fasli 1305 (1895–96) under the first and second crops, and those irrigated in the current fasli up to the end of December last; and it will be seen from this statement that the extents irrigated under the canal this year up to the end of December last are as shown in the subjoined abstract in the different canal taluks of both the districts, when compared with the actual figures of fasli 1305 (1895–96) :—

District.	Taluk.	Actual extent of fasli 1305.			Extent in fasli 1306 up to the end of December last.	Column 6 compared with column 3.	Column 6 compared with column 5.
		First crop.	Second crop.	Total.			
1	2	3	4	5	6	7	8
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
..	1. Ramallakot	1,687·80	431·76	2,119·56	2,657·78	+ 969·98	+ 538·22
..	2. Nandikotkur	5,100·98	693·51	5,794·49	24,616·12	+ 19,515·14	+ 18,821·63
..	3. Nandyal	2,668·87	762·47	3,431·34	12,064·94	+ 9,396·7	+ 8,633·60
..	4. Sirvel	3,361·77	178·75	3,540·52	11,848·77	+ 8,487	+ 8,308·25
..	5. Koilkuntla	333·48	70·72	404·20	5,167·38	+ 4,833·90	+ 4,763·18
	District total ..	13,152·90	2,137·21	15,290·11	56,354·99	+ 43,202·9	+ 41,064·88
..	6. Jammalamadugu ..	172·31	..	172·31	485·64	+ 313·33	+ 313·33
..	7. Proddatur	5,923·6	1,019·47	6,942·53	8,632·20	+ 2,709·14	+ 1,689·67
..	8. Cuddapah	7,215·67	3,158·33	10,374	7,943·39	+ 727·72	— 2,430·61
	District total ..	13,311·4	4,177·80	17,488·84	17,061·23	+ 3,750·19	— 427·61
	Canal total ..	26,463·94	6,315·01	32,778·95	73,416·22	+ 46,952·28	+ 40,637·27

4. Compared with the first crop figures of the previous fasli, all the five canal taluks of the Kurnool district show increase up to the end of December last, the total increase shown by the district being acres 43,202·9. Of the five taluks, the Nandikotkur taluk, which has the largest canal-commanded area, naturally shows the largest increase, namely, acres 19,515·14; Nandyal comes next with an increase of acres 9,396·7; Sirvel stands third with an increase of acres 8,487; then comes Koilkuntla with an increase of acres 4,833·90, and Ramallakot stands last with an increase of acres 969·98. The reason why the Ramallakot taluk shows comparatively a small increase is no other than that its canal-commanded area is very limited, being only a narrow strip of land situated between the canal on one side and the Tumbudra river itself on the other. In the Cuddapah district also, all the three canal taluks show increase, the increase in the Jammalamadugu taluk being acres 313·33, that in Proddatur acres 2,709·14, and that in Cuddapah acres 727·72, thus making a total increase of acres 3,750·19 for the whole district. Jammalamadugu is a nominal canal taluk with comparatively very limited canal-commanded area, and this is why that taluk shows the smallest increase, and the reason why the Cuddapah taluk shows less increase than Proddatur seems to be that its canal-commanded area with dry crops on is less than that of Proddatur, and Proddatur has consequently gone in for canal water for a much larger extent of dry crops than Cuddapah. The total increase shown by both the districts together is acres 46,952·28 or nearly acres 47,000 in round figures.

5. Compared with the *total* extents irrigated in fasli 1305 (1895–96) including both crops, the extents irrigated in the current fasli up to the end of December last show increase in all the canal taluks of both the districts excepting Cuddapah, and the reason why the Cuddapah taluk happens to show decrease here is no other than that its second crop extent coming on subsequent to December is generally large, being nearly as much as that of all the other seven canal taluks put together, and this taluk is consequently expected to more than make up the deficiency during the second-crop season. Looked at districtwar, the Kurnool district shows a total increase of acres 41,064·88, whereas the Cuddapah district shows a net decrease of acres 427·61, the total net increase under the entire canal being thus acres 40,637·27.

6. The total extent irrigated by the canal in the current fasli up to the end of December last comes to acres 73,416·22 against acres 32,778·95, the total extent irrigated by the canal in the last fasli including both crops; and to the above figure of the current fasli have yet to be added (*a*) second crops, such as dry season indigo, &c., yet to be raised and (*b*) extents yet to be discovered by the canal revenue inspectors in their inspections or "Azmoish" which is still in progress, and I think it would not be too much to expect the total extent for the current fasli to go up to acres 80,000, so that the current fasli will, in point of extent irrigated, be second to the

great famine year of 1876–77 (fasli 1286) when the total extent secured by the canal was acres 90,285, the highest figure ever reached as yet since the first opening of the canal for irrigation in 1863–64. The extent irrigated by the canal in 1891–92 (fasli 1301) which was acres 73,417 has hitherto been the second highest figure reached by the canal, but the current year's extent up to the end of December alone having already come up to acres 73,417 (a strange coincidence of figures) the year 1891–92 (fasli 1301) has certainly lost its position.

7. Had it not been for the light rains that fortunately fell in the latter part of November last, at least another 20,000 acres of dry crops, especially cholam, would have gone in for canal water this year from about Mutsumurri of the Nandikotkur taluk down to Rajoli of the Sirvel taluk, and the total extent irrigated by the canal reached a lakh of acres and thus exceeded even the great famine figure of 1876–77. The rains that fell in November, though light after all and not enough by themselves for the successful raising of any *fresh* crops, were found enough to save standing cholam and cotton crops, not already irrigated, without any further necessity of irrigation; and thus the ryots of several important canal villages between the two points of the canal mentioned above gave up the idea of using canal water in lots of cases where they had even prepared minor channels with the view of taking canal water. It may not be out of place to mention here that, when scarcity of water was felt for standing *wet* crops of the Proddatur and Cuddapah taluks about the middle of October last, it was found necessary by the lower sub-divisional officer to lay a temporary restriction on the issue of water for dry crops within the limits of his sub-division above Rajoli with the view of saving the said wet crops of the Cuddapah district; and, had this restriction which lasted for nearly twenty days from about the latter part of October not been placed, the Nandyal, Sirvel and Koilkuntla taluks would have irrigated a few more thousands of acres of dry crops, but then standing *wet* crops on over 10,000 of acres would have had to perish in the Proddatur and Cuddapah taluks of the Cuddapah district and any additional pecuniary advantage gained by the canal in higher up taluks would have been more than counterbalanced by loss of revenue to be sustained lower down as already stated in my letter, No. 389, dated the 5th December last, embodied in B.P., dated the 12th idem, No. 424.

8. Turning to villagewar particulars, it will be observed from the enclosed statement that, compared with the first-crop figures of fasli 1305 (1895–96), only two insignificant and nominal canal villages of the Ramallakot taluk, namely, Sunkesala and Kurnool, show some small decrease, whereas all the other eight villages of the taluk show good increase. In the Nandikotkur taluk similarly, only one insignificant canal village Boyarevula shows a nominal decrease of less than 2 acres, whereas all the other 44 villages including the three belonging to His Highness the Nizam exhibit good increase. In this taluk two villages Guntakandalu and Tangedantsa have newly come in for canal water this year. In the Nandyal taluk, two villages (Irnipad and Pulimaddi) show some small insignificant decrease, whereas all the other usual canal villages have shown good increase, and some seven villages have newly come in for canal water this year. These new villages are (1) Tirripad, (2) Koratamaddi, (3) Gadivemulu, (4) Kanalu, (5) Kottalu, (6) Bhímavaram and (7) Bollavaram. In the Sirvel taluk, four villages, namely, (1) Govindapalli, (2) Kobakandukur, (3) Rampalli and (4) Bodaram show some small decrease each; but, of these, the last-mentioned three have yet to be inspected by the canal revenue inspector. All the other usual canal villages of this taluk show good increase, and eight villages have newly come in for canal water this year from this taluk. They are (1) Dibaguntla, (2) Mullappa Chintakunta, (3) Pasarapad, (4) Julepalli, (5) Nagalavaram, (6) Vantivelagula, (7) Murtikristnapuram and (8) Gurupuramandinne. All the usual canal villages of the Koilkuntla taluk show good increase, and three villages of the taluk, namely, (1) Perayapalli, (2) Govindadinne and (3) Sarvoyapalli have newly come in for canal water this year. In the Jammalamadugu taluk of the Cuddapah district, Peddamudiyum is the only usual canal village which shows decrease, and the other usual canal village Jangalapalli shows good increase. (1) Kotalapalli, (2) Balapanagudur, (3) Uppalur and (4) Suddapalli are four new villages of this taluk which have taken canal water this year. The reason why

Peddamudiyum shows decrease has not been stated by the canal revenue inspector in the statement submitted by him. It will, however, be ascertained at the time of the water-rate settlement of the taluk. In the Proddatur taluk six villages, that is, (1) Kanagudur, (2) Annalur, (3) Idimadulla, (4) Shrotriyum Nerravada, (5) Shrotriyum Morrayapalli and (6) Pichichipad show small and insignificant decreases, whereas all the other usual canal villages show some good increase, and Nélatur is a village which has newly come in for canal water this year from this taluk. In the Cuddapah taluk there are altogether 27 canal villages this year; and, of these, 15 show nominal decrease, whereas all the other usual canal villages show increase, and Thollagangana palli is a village of this taluk which has newly taken canal water this year for a small extent of nearly 6 acres.

The heavy increase appearing in the case of most of the villages in the enclosed statement is, as already stated above, due to the failure of rains, and consequent extensive demand for water for dry crops; and decreases, wherever they appear, are generally small and insignificant and, as such, call for no remarks.

9. The subjoined statement compares the irrigated extents of the current fasli down to the end of December last with the actual figures of the last fasli 1305 (1895–96) according to crops of different rates :—

Ratewar comparison of the current year's irrigation up to the end of December with the actual irrigation of fasli 1305 (1895–96).

District.	Taluk.	First-class garden crops such as sugar-cane, &c., rate Rs. 6.						First-crop paddy and turmeric, rate Rs. 4.						"Bagayet" or garden crops including second-crop paddy, rate Rs. 3.					
		Fasli 1305.			Fasli 1306 up to the end of December.			Fasli 1305.			Fasli 1306 up to the end of December.			Fasli 1305.			Fasli 1306 up to the end of December.		
		On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool.	1. Ramallakot ..	171·70	0·70	172·40	126·36	2·86	129·22	1,202·62	15·71	1,218·33	1,329 62	59·34	1,388·96	573·73	11·64	585·37	330·68	18·93	349·61
	2. Nandikotkur ..	17·85	0·18	18·03	30·26	1·90	32·16	3,602·96	53·93	3,656·89	3,421·39	53·12	3,474·51	781·98	69·43	851·41	1,299·72	45·38	1,345·10
	3. Nandyal	2·72	0·48	3·20	4·98	0·90	5·88	1,859·44	36·28	1,895·72	2,091·35	48·48	2,139·83	391·14	53·06	444·20	510·04	111·0	621·04
	4. Sirvel	7·18	0·50	7·68	3·16	..	3·16	1,125·22	32·12	1,157·34	1,063·23	17·52	1,080·75	382·27	75·96	458·23	1,040·89	71·55	1,112·44
	5. Koilkuntla ..	2·34	0·13	2·47	2·34	..	2·34	187·56	5·7	192·63	213·82	4·74	218·56	90·17	7·24	97·41	94·0	2·75	96·75
	District Total ..	201·79	1·99	203·78	167·10	5·66	172·76	7,977·80	143·11	8,120·91	8,119·41	183·20	8,302·61	2,219·29	217·33	2,436·62	3,275 33	249·61	3,524·94
Cuddapah.	6. Jammalamadugu ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29·68	7·44	37·12
	7. Proddatur	29·38	..	29·38	23·39	4·30	27·69	2,734·75	46·15	2,780·90	3,038·52	75·45	3,113·97	2,738·42	218·63	2,957·05	2,043·66	203·31	2,246·97
	8. Cuddapah	15·47	0·71	16·18	31·10	..	31·10	5,615·83	128·62	5,744·45	4,570 40	90·49	4,660·89	3,704·71	143·79	3,848·50	1,862·07	162·04	2,024·11
	District Total ..	44·85	0·71	45·56	54·49	4·30	58·79	8,350·58	174·77	8,525·35	7,608·92	165·94	7,774·86	6,443·13	362·42	6,805·55	3,935·41	372·79	4,308·20
	Canal Total ..	246·64	2·70	249·34	221·59	9·96	231·55	16,328·38	317·88	16,646·26	15,728·33	349·14	16,077·47	8,662·42	579·75	9,242·17	7,210·74	622·40	7,833·14

District.	Taluk.	Mundla or tailed coarse paddy, rate Rs. 2.						Dry crops, rate Re. 1.						Total.					
		Fasli 1305.			Fasli 1306 up to end of December.			Fasli 1305.			Fasli 1306 up to end of December.			Fasli 1305.			Fasli 1306 up to end of December.		
		On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool.	1. Ramallakot ..	..	..	..	..	..	..	136·42	7·04	143·46	726·7	63·92	789·99	2,084·47	35·09	2,119·56	2,512·73	145·5	2,657·78
	2 Nandikotkur ..	185·69	8·18	193·87	259·98	4·46	264·44	737·76	336·53	1,074·29	18,864·52	635·39	19,499·91	5,326·24	468·25	5,794·49	23,875·87	740·25	24,616·12
	3. Nandyal	558·45	32·21	590·66	813·36	39·53	852 89	296·18	201·38	497·56	6,713·79	1,731·51	8,445·30	3,107·93	323·41	3,431·34	10,133·52	1,931·42	12,064·94
	4. Sirvel	836·55	127·83	964·38	1,758·32	32·83	1,791·15	532·94	419·95	952·89	7,312·1	549·26	7,861·27	2,884·16	656·36	3,540·52	11,177·61	671·16	11,848·77
	5. Koilkuntla ..	11·75	3·47	15·22	36·60	..	36·60	45·22	51·25	96·47	3,486·5	1,327·08	4,813·13	337·04	67·16	404·20	3,832·81	1,334·57	5,167·38
	District Total ..	1,592·44	171·69	1,764·13	2,868·26	76·82	2,945·08	1,748·52	1,016·15	2,764·67	37,102·44	4,307·16	41,409·60	13,739·84	1,550·27	15,290·11	51,532·54	4,822·45	56,354·99
Cuddapah.	6. Jammalamadugu ..	12·95	..	12·95	8·74	..	8·74	153·36	6·0	159·36	354·64	85·14	439·78	166·31	6·0	172·31	393·6	92·58	485·64
	7. Proddatur ..	89·99	0·38	90·37	6·6	..	6·6	945·94	138·89	1,084·83	2,626·71	610·80	3,237·51	6,538·48	404·05	6,942·53	7,738·34	863·86	8,632·20
	8. Cuddapah ..	7·69	..	7·69	..	..	..	618·23	138·95	757·18	1,047·49	179·80	1,227·29	9,961·93	412·07	10,374·0	7,511·06	432·33	7,943·39
	District Total ..	110·63	0·38	111·01	14·80	..	14·80	1,717·53	283·84	2,001·37	4,028·84	875·74	4,904·58	16,666·72	822·12	17,488·84	15,642·46	1,418·77	17,061·23
	Canal Total ..	1,703·07	172·07	1,875·14	2,883·06	76·82	2,959·88	3,466·05	1,299·99	4,766·04	41,131·28	5,182·90	46,314·18	30,406·56	2,372·39	32,778·95	67,175·0	6,241·22	73,416·22

It will be observed from this statement that, under the Rs. 6 rate, the Jammalamadugu taluk, which is an insignificant and nominal canal taluk, has no figures at all and that the variations are rather small in all the other canal taluks except Ramallakot where there appears a decrease of about 40 acres. This decrease is due partly to the extent under sugar-cane for this year being smaller than the last year's extent in consequence of some want of water felt towards the close of the last fasli at the time of sugar-cane sowings, and partly to certain mango topes which applied for canal water last year during the second-crop season and are thus included in the last year's figures not having as yet applied for water this year. Under the Rs. 4 rate, the Jammalamadugu taluk has again no figures at all; and, of the remaining seven canal taluks, Nandikotkur, Sirvel and Cuddapah alone show decrease, but this decrease seems only nominal for the most part, and is expected to be almost made up when the canal Revenue Inspectors of the taluks complete their "azmoish" or inspection work which is in progress. Under the Rs. 3 rate, the extent against the Koilkuntla taluk is almost equal to that of the last year; and, of the remaining seven taluks, Ramallakot, Proddatur and Cuddapah alone show decrease; but even in the case of these taluks the decrease is expected to be made up during the second-crop season by means of second-crop paddy in the Ramallakot taluk and through garden or "Bagayet" crops such as dry season indigo, &c., in the case of the Proddatur and Cuddapah taluks. There is no coarse or dry paddy at all in the Ramallakot taluk and so it has no figures to show under the Rs. 2 rate. The remaining four taluks of the Kurnool district show increase under this rate, whereas all the three canal taluks of the Cuddapah district show decrease. There is, however, the point for consideration that coarse or dry paddy is not an important crop at all in the canal villages of the Cuddapah district where the choice of the ryots is generally in favour of good paddy and garden or "Bagayet" crops; and even last year the total extent of coarse paddy in the Cuddapah district was only 111 acres. Under dry crops or the Re. 1 rate, all the eight canal taluks show increase, the increase in the case of the Nandikotkur, Nandyal, Sirvel, Koilkuntla and Proddatur taluks being particularly heavy. It will be observed that, taking both the districts together, the total increase under the Re. 1 rate was over 41,500 acres down to the end of December last, and to this figure some more pretty large area will, I feel sure, have to be added when the canal Revenue Inspectors complete their "azmoish" or inspections, especially in the Nandikotkur, Nandyal, Sirvel and Koilkuntla taluks.

10. I think it would be unfair to the canal if, before closing my remarks on the current year's irrigation, I omit to mention that, in addition to the total extent of acres 73,416·22 directly irrigated as particularized in the enclosed statement, the canal have supplied water to another 5,000 acres of paddy raised under canal-fed tanks in both the districts which, unlike in previous years, almost exclusively depended on the canal this year for their supply, their natural sources of supply having put in little or no water into them.

Introduction of experimental crops into the Kurnool district canal villages.

11. Referring to the latter part of paragraph 11 of my report for the half-year ending 30th June last, No. 234, dated the 21st September 1896, wherein I promised to ascertain and report the pecuniary outturn of certain dry season indigo experiments carried on in the Nandikotkur, Nandyal and Sirvel taluks in fasli 1305 (1895–96), I beg to submit that the crop raised by two ryots on about 13 acres in Yallur of the Sirvel taluk finally proved to be the best case for the year and yielded as much as nearly Rs. 60 per acre for one cutting, whereas the successful crop on 2 acres of Sambavaram of the same taluk is said to have gone for Rs. 20 an acre. In Kothapalli, hamlet of Nandyal, the successful crop was sold by the ryots to one Hayathkhan of Nandyal from Rs. 20 to Rs. 30 an acre according to density of crop; and two ryots of Nagatur of the Nandikotkur taluk sold their crop, while yet not fully grown, for Rs. 10 an acre. In all the above cases, the indigo stumps left were used by the ryots as manure for the succeeding paddy and other crops.

12. Out of the Rs. 1,000 advance kindly sanctioned by the Board in its Proceedings, dated 9th September 1896, Mis. No. 4355, cummin seed fit for sowing purposes was purchased for nearly Rs. 650 during the half-year under report; and, of the seed

purchased, about 100 maunds sufficient for 100 acres has been distributed to 187 ryots of fifty-nine villages; and, so far as information has been gathered, about 100 of the individuals who received the seed appear to have actually tried the experiments promised on about 75 acres in all. The reason why a large proportion of the recipients of the seed failed to carry on the experiments promised by them is no other than the unfavourable character of the season. At the time of the distribution of seed, people had hopes of rain yet and the season did not assume that severe and threatening aspect it subsequently did; and, when they noticed an unfavourable change in the season, such of the recipients of seed as had limited holdings under the canal gave up the idea of carrying on the promised experiments, and naturally went in for fodder and grain crops such as cholam, &c. Cummin seed crop raised is still standing on the ground in some cases, and in others it has just been removed. In some cases the crop raised has been attacked with disease; but, at the same time, there are also other cases in which the crop is in excellent condition, and good and highly encouraging outturns are expected. The experiments carried on this year in Kothapalli, hamlet of Nandyal, in Regadigudur, Chelimilla, Pamulapad, Velpanur, Vellala, Virapuram, Maravakonda, Allur, Maddigatla, Tarigoppula and Padidunpad of the Nandikotkur taluk have already produced good impressions on the minds of ryots about the short duration and the economical and remunerative character of the crop; and, although the precise outturns of all the successful cases are not yet known and must, therefore, be reserved for a future report, it seems to my mind that this year's experiments will also tend to multiply the number of experiments to be carried on in the coming year at different points of the canal in the Kurnool district, just as the few first experiments of last year (fasli 1305) have increased the current year's experiments about sixfold. Had the season been normal, many more experiments would certainly have been tried and the extent involved would also have been much larger; and it seems even now gratifying that, notwithstanding the adverse character of the season, so many as about 100 individuals have carried on the promised experiments this year. Steps have, of course, been taken to recover the value of the seed distributed from its recipients, and credit back the amount to the treasury before the close of the current official year.

13. As regards dry season or second crop indigo, the time for putting down that crop is only just at hand, and it is not precisely known in how many places in the Kurnool district it will be tried this year under the canal. Considering, however, the facts (*a*) that, owing to the adverse character of the season, the inclination of the agricultural classes is almost exclusively for food and fodder crops, and (*b*) that even rain-sown standing indigo of the current fasli had, in several places under the canal, been deliberately spoiled by ryots in the Kurnool district and grain crops put in on such lands since October last, I do not think we can expect much in the direction of dry season indigo experiments this year. I am, however, sanguine that the ryots of Kothapalli, hamlet of Nandyal, will not give it up even in a bad year like this, and I actually saw some of them preparing their lands for dry season indigo on my way up the other day. I expect some ryots of Govindadinne of the Koilkuntla taluk also to go in for dry season indigo this year.

14. In addition to cummin seed and dry season indigo, two "bagayet" crops adopted from the Cuddapah district portion under the canal and introduced into the canal taluks of the Kurnool district, the cultivation of ground-nut as an experiment has also been introduced into certain block lands of the Nandikotkur and Proddatur taluks during the half-year under report. This crop which was nowhere under the canal previously has been tried this year on two patches of about 0·75 acre each on the Pamulapad and Bhanumukkala blocks of the Kurnool district, and on about half an acre on the Madur block of the Proddatur taluk, Cuddapah district. The crops on the two patches of the Kurnool blocks have come on well and are in good condition. I saw them but ten days ago on my way up. The crop tried on the Madur block is reported to have been attacked with disease; but it was sown rather late some time about the end of October, and this is presumably why it is unhealthy. I feel sure that this ground-nut crop will easily spread in the canal villages of the Kurnool district if only

endeavours are maintained in that direction by the local revenue officers till the crop becomes a settled and recognised crop. No doubt, cummin seed is a more remunerative and less standing crop than ground-nut, but it is a very delicate crop and one often subject to diseases. Ground-nut, on the other hand, seems to be a comparatively hardy crop requiring less tillage and preparation of land as also less of manure, and it thus strikes me that it will spread under the canal in the Kurnool district with greater speed than even cummin seed or dry season indigo.

15. To my humble mind, introduction of fresh crops seems to be a subject which will have to be worked at patiently and with persistence and not hurried through. In the first place, it is not an easy matter to induce a conservative and an illiterate class of ryots like those we generally find in the Kurnool district to take to and try fresh and strange crops; and, in getting fresh crops tried, we have also to make some allowance for the ryots' want of *practical* experience in the treatment of the crops raised and consequent failures and short outturns here and there. Of course, all possible instruction is being given them as to how to raise the experimental crops told, but what they thus learn from word of mouth or from printed notices is, after all, only theoretical for them till they themselves try; and it cannot be as good a guide to them as practical experience gained by actually raising the crop once or twice. In cases where more than one individual have tried cummin seed cultivation this year in one and the same village, and where the crop of one individual has come out decidedly more successful than that of another, the ryots have already begun to see for themselves in what particular or particulars the owner of the defective crop has erred or failed, and it is practical experience of this kind that will surely help them.

I feel sure that all the three crops introduced will gradually spread and take root in the canal villages of the Kurnool district, but it would be necessary for the local officers to take some special interest in the matter for a few years till, as I have already stated above, the crops become settled and recognized crops.

16. Of the extent of acres 1,687·19 reported as granted under the block rules down to the end of June 1896, acres 235·55 have since been relinquished by Messrs. Ganapathy Rungasamy & Co. of Madur on the ground that acres 164·78 of it have been pronounced unirrigable by Public Works Department officers since their taking up the block, and that no means of irrigation have been provided for the remaining acres 70·77; and during the half-year under report sanction has been accorded for the grant of fresh blocks to the extent of acres 156·17 so that the net total extent granted under the block rules down to the close of December last is acres 1,607·81 as particularised in the margin. Of the blocks mentioned in the margin, the first three of the Kurnool district and the first three of Cuddapah are in working order. It is a local ryot of Pudúr that took up block No. 1 of the Kurnool district; and in cases Nos. 2 and 3 of Kurnool, some families from the Tinnevelly and Tanjore districts have come and settled themselves down, not far from their blocks, and are working on their respective blocks. The holders of block No. 2 have purchased five pairs of bullocks and work with their own bullocks, whereas the holder of block No. 3 of Kurnool has been working with hired bullocks. Blocks Nos. 4 and 5 of Kurnool have only been recently granted and no work has as yet been begun on them. It is an Iyer from Tinnevelly that holds block No. 6 of Kurnool. He came and spent about Rs. 150 in levelling the block, but did not as yet raise any crop or crops on it. Of the Cuddapah district

District.	Village.	Extent.
1	2	3
		Acs.
Kurnool.	1. Pudur	10·20
	2. Pamulapad	209·20
	3. Bhanumukkala	270·71
	4. Do.	17·56
	5. Do.	17·63
	6. Pesaravoyi	71·35
	District Total ..	596·65
Cuddapah.	1. Madur	335·36
	2. Mudukur	121·51
	3. Bhadripalli	250·04
	4. Thudumuladinne	81·15
	5. Thawaripalli	102·12
	6. Thudumuladinne	14·71
	7. Yetur	106·27
	District Total ..	1011·16
	Grand Total ..	1607·81

blocks, the holders of Nos. 1 and 2 have come and settled themselves down near their blocks and are working with their own pairs of bullocks. The holders of block No. 3 come and stop in Mudukur during working seasons, and have not as yet become permanent residents near their block. They work with hired bullocks. The holders of blocks Nos. 4 and 5 of Cuddapah, to whom I have already referred in paragraph 16 of my report No 234 for the half-year ending 30th June last, have neither relinquished their blocks, nor have they come and begun work on them. Block No. 6 of Cuddapah is one granted for fasli 1306, and the holder has not yet come from Tinnevelly and begun work. He has, however, written to say that he would keep the block. Block No. 7 of Cuddapah has only been recently granted and is to run on from the next fasli 1307 (1897–98). Besides the blocks already granted five block applications to the total extent of acres 278·67 have since been received and are under inquiry with the Tahsildars concerned, and they will be disposed of in due course.

17. The following table shows the approximate extents as yet cultivated this year with different kinds of crops in the case of the six blocks (three of Kurnool and three of Cuddapah) on which work has been going on, and dry season indigo is expected to be tried on some more extent by some of these block holders. Paddy alone has been harvested in the case of the three Kurnool blocks, and the results are reported to be specially encouraging on the Pudúr and Pamulapad blocks, and ordinary on the Shanumakkalu block where a large portion of the crop was unfortunately attacked with disease. Cummin seed has just been removed from the Pamulapad block and the outturn appears promising, although the seed has not yet been thrashed out. All the other crops are still standing on the ground. In the case of the Cuddapah district working blocks, korra crop alone is stated to have as yet been harvested and the yield is said to be about one-fourth. All the other crops are still on the ground, but are stated to be in good condition on the whole. Writing on the 18th January last, Mr. Rungasami Iyer, the working share-holder of Messrs. Ganapathy & Co. of Madur, states: "I am glad to inform you that the transplanted experimental paddy is successful in the place where the land has been manured and ploughed last year. So I mean cultivating 100 acres paddy for the next year;" and it may not be out of place to mention here that the land on which he tried the experiment is pure black soil land, about the turning of which into successful paddy land the local ryots seem to have hitherto entertained doubts:—

District.	Number of block and village.	Paddy.	Turmeric.	Ragi.	Bariga.	Coriander.	Cummin seed.	Cholam.	Cotton.
1	2	3	4	5	6	7	8	9	10
		Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.
Kurnool ..	1. Pudúr	4·	..	..	..	..	..	..	..
	2. Pamulapad	12·	..	..	..	1·	2·50	20·	..
	3. Bhanumukkalu ..	30·	..	..	..	..	..	..	..
Cuddapah ..	1. Madur	29·10	..	6·	4·	..	10·	85·22	55·72
	2. Mudukur	2·	·70	..	..	8·6	7·77	18·38	..
	3. Bhadripalli	3·50	·48	..	59·9	..	..	25·4	..
	Total ..	80·60	1·18	6·	63·9	9·6	20·27	148·64	55·72

District.	Number of block and village.	Arika.	Korru.	Kusuma.	Groundnut.	Bengal gram.	Horse gram.	Chilly.	Ulundu or black gram.	Total.
		11	12	13	14	15	16	17	18	19
		Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.
Kurnool ..	1. Pudúr	..	..	..	..	..	..	..	..	4·
	2. Pamulapad	..	..	..	·75	2·	10·	·50	10·	58·75
	3. Bhanumukkalu ..	..	..	..	·75	..	10·	..	5·	45·75
Cuddapah ..	1. Madur	24·89	..	31·94	·50	11·78	56·80	..	..	315·95
	2. Mudukur	7·73	13·30	..	..	..	..	..	..	57·94
	3. Bhadripalli	..	..	..	..	..	..	..	..	88·11
	Total ..	32·62	13·30	31·94	2·	13·78	76·80	·50	15·	570·50

18. Since the submission of the last half-yearly report, the undermentioned applications for fresh sluices and channels have been received from ryots of village at different points of the canal with offers to bring the extents specified under permanent wet cultivation should the sluices and channels applied for be provided; and, of course, the applications have all of them been forwarded to the Executive Engineer for favourable consideration and early orders. In almost all the cases the applicants express their willingness to take canal water from the coming fasli 1307 (1897-98); and there is no doubt whatever that, in many of these cases, the protection derived from the canal this year by villages already under its influence has taught the applicants a lesson and convinced them what a precious thing it is to have lands commanded by the canal and how unsafe it must be, on the other hand, to rely exclusively on rains. I hope the Public Works Department will, wherever feasible, comply with the applicants' requests during the present dry season and before the next rains begin:—

District.	Taluk.	Village.	Applicants.	Acreage promised to be permanently brought under wet cultivation.
				Acs.
Kurnool ..	Nandyal ..	Brahmanapalli ..	Annapu Reddi and others	120·30
	Do. ..	Guntanala	Gali Ramanna and others	20·
	Do. ..	Thogarchedu ..	Timmareddi and others	65·71
	Do. ..	Mulasagaram, hamlet of Nandyal.	Balakondareddi and others	60·
	Koilkuntla ..	Joladarasi	Narayana Reddi and others	56·
	Do. ..	Bhimunipad ..	Subbareddi and others	60·
	Do. ..	Gubagundum Jambuladinne.	Sanjeeva Reddi and others	100·
	Do. ..	Lingala	Kurnam Venkatasubbiah and others ..	80·15
Cuddapah ..	Proddatur ..	Vasudevapuram, hamlet of Velavali.	Boddi Venkata and others	40·
			Total ..	602·16

19. At the instance of the Superintending Engineer of the circle, I have been desired to assist the special Sub-divisional officer of the Public Works Department by preparing these preliminary fieldwar lists for all the canal villages of both the districts, and I began the work about the beginning of the current fasli; but, as the present adverse season and extensive demand for and use of canal water and consequent necessity for supervision of distribution of water under common and important channels and personal check and inspection of the irrigated areas here and there at important points have drawn me away from and did not allow time for that branch of work from about the middle of October last, I am sorry I have not been able to prepare the preliminary fieldwar lists required by the Public Works Department for more than 46 villages in all or about one-fourth the total number of villages commanded by the canal; and I think that the preparation of similar lists for all the other canal villages would itself require full six months' time, as it is not only the preparation of mere lists that is necessary, but also inspection of all the fields to be mentioned in the lists.

Preparation of lists of fields fit for charge of the famine insurance rate, &c., in connection with the next re-settlement.

20. The total term of three years already sanctioned for the special office expires on the 15th March next; and, unless it be thought necessary to retain the office for a year more or so in consideration of (*a*) the other lists that have yet to be prepared and are referred to in the immediately preceding paragraph and (*b*) the settlement of the current fasli canal water-rate of the remaining six canal taluks excepting Proddatur and Cuddapah, the jamabandi of which is to be conducted by the Collector himself, I humbly venture to repeat suggestion (*c*) made by me in paragraph 10 of my report No. 26, dated the 7th February 1896, embodied in G.O., No. 343, Revenue, dated the 21st July 1896, communicated with B.P., Mis. No. 4147, dated 24th August last. It will be observed that the above suggestion was to the effect that, in case the special office is done away with, it will be advantageous to entrust the canal charge of the entire length of the canal in the Kurnool district to one officer, that is, to the Head-quarter Deputy Collector of the Kurnool district, and similarly the canal charge within the limits of the Cuddapah district to the Head-quarter Deputy Collector of Cuddapah, giving each of these officers an additional temporary clerk on Rs. 25 to look after canal work. The various reasons which have induced me to put forward the above suggestion as one both economical and advantageous have been fully set forth in paragraph 10 of my report No. 26 referred to above, and, I therefore, think it redundant to reiterate them here. I hope, however, that my remarks on the subject in the said paragraph will kindly be perused and considered before the question is finally disposed of one way or the other. As regards the objection that the entrusting of canal work to the Head-quarter Deputy Collectors may cause inconvenience to parties in criminal cases, &c., by reason of the officers' absence in remote taluks, I humbly beg to submit that my own humble impression is that, as long as there are the Special Canal Revenue Inspectors and the Tahsildars to assist them in all miscellaneous canal matters, it will not be necessary for the Head-quarter Deputy Collectors to visit the canal taluks other than those comprising their own divisions more than once or twice at the most in the year; and each such visit need not take more than ten days or so. In the Kurnool district the entire length of the canal is about 145 miles as already stated by me; and of this, the Head-quarter Deputy Collector's division itself extends as far down as about the 90th mile stone; and again about the last 15 miles length of the Kurnool district portion of the canal happens to pass through a tract not important in an irrigation point of view. In the case of the Cuddapah district, Jammalamadugu is a nominal and an insignificant canal taluk hardly requiring any supervision, and the few canal villages of the Proddatur taluk which adjoins the Cuddapah taluk can, I think, be easily visited by the Head-quarter Deputy Collector of Cuddapah once or twice in the year without causing any real inconvenience to his other work in Cuddapah. Should any doubts be still entertained as regards the feasibility of the above suggestion, it strikes me that it may at least be given a few years' trial in case it may be decided to do away with the special office. In conclusion, I beg to add that I hope I will kindly be excused for having put forward the above suggestion again, as I have ventured to repeat it (*a*) in the firm belief that it will serve the interests of the canal better to keep its revenue charge in the hands of one officer for each district than to divide it again as before, and (*b*) for the following chief reasons among others:—

The Special office.

(1) That the arrangement suggested will secure economy, saving nearly all the expenditure of a special office.

(2) That it will produce in the minds of canal ryots a healthy and salubrious impression that the arrangement made by Government for the supervision of canal work is not of a temporary but of a permanent and standing nature.

(3) That the Nandikotkur taluk, which is the most important canal taluk in the Kurnool district containing more than half the canal-commanded area of the district as shown in the margin, contains, for the most part, the best of the canal-commanded lands and is thus, in fact, the taluk on which the future of the canal mainly depends and that, such a taluk forming his own division, the Head-quarter Deputy Collector must naturally be in a position to have the cultivation of experimental crops, which mean a good deal indeed for the future of the canal, carried on in the taluk with far greater effect than can be possibly the case under any other arrangement.

Taluk.	Approximate extent commanded by existing distributaries.
	Acs.
1. Ramallakot	2,900
2. Nandikotkur	51,500
3. Nandyal	14,900
4. Sirvel	18,900
5. Koilkuntla	6,300
Total ...	94 500

21. In conclusion, I beg to submit that the subject referred to in paragraph 20 is one requiring the favour of very early orders.

Endorsement by the Acting Collector of Kurnool, dated 26th February 1897, No. 'N'.

Forwarded.

2. The Deputy Collector's proposal to abolish the special office and to assign the whole of the canal work to the Head-quarter Deputy Collector does not commend itself to me for the reasons given in this office endorsement, Ref. on Perdl. No. 25-Ver., dated 28th February 1896, embodied in B.P., dated 7th May 1896, No. 91. Considering the state of the season and the heavy work devolving in consequence on the Divisional Officers, the further retention of the Deputy Collector for one year, at all events, seems advisable.

Endorsement by A. C. TATE, Esq., Collector of Cuddapah, dated 27th February 1897.

Forwarded.

2. Regarding paragraph 16, I beg to invite the attention of the Board to this office Ref. on Cur. No. 5843-Rev., dated 11th September 1896. The block of 106·27 acres of Yetur entered in item No. 7 has been relinquished on 31st August 1896.

3. I do not approve of the Head-quarter Deputy Collector being placed in charge of the canal in Proddatur and Jammalamadugu.

Resolution—dated 14th May 1897, No. 368.

With the endorsements read above, the Collectors of Kurnool and Cuddapah forward the report of the Special Deputy Collector in charge of the Kurnool-Cuddapah canal, for the half-year ending 31st December 1896.

2. The Deputy Collector was in camp for 165 out of 184 days during the half year. For the first three months of the period, he was chiefly engaged in preparing lists of lands which may be permanently transferred to wet, and of those on which an insurance rate may be imposed at the ensuing re-settlement. The rest of the period was devoted —

(1) to making arrangements with the Public Works Department to ensure a due regulation of water-supply to the two districts;

(2) to seeing that, in respect of villages served by important common distributaries, the ryots of villages higher up did not take water to the prejudice of those lower down; and

(3) to inspecting the irrigated areas of certain important canal villages of the Kurnool district, in which water was very largely taken for the irrigation of dry crops.

3. The tables appended to paragraphs 3 and 9 of the Deputy Collector's report show that the extent irrigated up to the end of December last was much larger than the first crop area recorded in the previous year in all the canal taluks of both the districts, the total increase being acres 46,952. Even as compared with the total extent under both the crops irrigated in fasli 1305, the cultivated area during the half year under report exhibits an increase in all the taluks except Cuddapah. In the Cuddapah taluk, however, it is stated that the second crop cultivation is generally very large being in fact equal to that in all the other seven taluks put together, and that the deficiency noticed above may therefore be expected to be more than made up during the second crop season. On the whole, there was marked increase in the year so far as the inspection already made is concerned; and the inspection by canal Revenue Inspectors, which is still in progress, and second crops, such as dry season indigo which may be raised hereafter, will doubtless add to this increase. The total irrigated area this year will, according to the Deputy Collector's estimate, go up to 80,000 acres, the increase being wholly under dry crops irrigated owing to the unfavourable character of the season; and the current year's figure will be next only to that reached in the great famine year 1876–77, in which the total irrigated area amounted to 90,285 acres, the highest figure on record. The variations in the different taluks are fully explained in paragraphs 4 and 5 of the Deputy Collector's report.

4. Besides the 73,416 acres directly irrigated as stated above, the canal has supplied water to 5,000 acres of paddy raised under canal-fed tanks in both the districts, which, owing to their natural sources having afforded them little or no supply, had to depend almost exclusively on the canal this year.

5. Out of the sum of Rs. 1,000 placed at the disposal of the Deputy Collector for the purchase of cummin-seed to be supplied to ryots for experimental cultivation, as per B.P., dated 9th September 1896, Mis. No. 4355, nearly Rs. 650 were spent on the purchase of the seed. One hundred maunds were distributed to 187 ryots in 59 villages, of whom 100 ryots cultivated an extent of 75 acres. Many more would have tried the experiment, were it not for the unfavourable character of the season. The experiments made so far seem to promise well.

6. The experimental cultivation of ground-nut was successfully carried out on two patches of 75 cents each and the Deputy Collector thinks that this crop is likely to be very largely grown in the canal-commanded area, if the local revenue officers exert themselves in this direction, as the crop is more hardy than the cummin-seed and requires "less tillage and preparation of land as also less manure."

Ground-nut is very extensively grown in the South Arcot district and the Deputy Collector may obtain from the Collector of that district useful information about the cultivation of this crop for dissemination among the ryots.

With reference to the Special Deputy Collector's remarks in paragraphs 14 and 15 of his report to the effect that if the cultivation of special crops in the canal village is to prove a success, the local revenue officers should take some special interest in the matter, the Collectors of Kurnool and Cuddapah will be requested to consider the advisability of appointing as Revenue Inspectors, when vacancies occur, a few passed students of the Agricultural College and posting them to canal firkas.

7. During the half year under review, about 236 acres of land taken up under the block rules were relinquished, as nearly three-fourths of this area were pronounced to be unirrigable by the Public Works Department; and, as no means of irrigation had been provided for the remainder, including 156 acres granted during the half year, the total extent of land assigned under the block rules up to 31st December last was 1,608 acres. Three blocks in each of the two districts of Kurnool and Cuddapah aggregating 490 and 707 acres, respectively, are reported to be under cultivation, 571 acres having been cultivated in them with different crops as shown in the margin. It is satisfactory to note that ryots from Tanjore and Tinnevelly continue to take up more lands under the rules.

	Acs
Cholam	149
Paddy	81
Horsegram	77
Bariga	63
Cotton	56
Arika	33
Kusuma	32
Other crops	80
Total ...	571

8. Paragraph 18 of the Deputy Collector's report will be communicated to the Chief Engineer for Irrigation for consideration.

9. The retention of the Special Deputy Collector for a further period of one year has been approved by Government in its order Mis. No. 1801, Revenue, dated 3rd April 1897. It would be difficult to find an officer who would take more interest in this work than the Special Deputy Collector.

10. The Board would desire again to call attention to the figures quoted in its Proceedings, No. 40 dated 19th January 1897. The value of crops saved by the canal in the present year was then estimated at 17·12 lakhs, and the figure is likely to be exceeded when the full returns come in. It is a point which cannot, until recognised, be too much insisted on, that irrigation works should not be valued for the

mere interest which they bring in on the capital expenditure; their value as ensuring food-crops and protecting large tracts of country from famine, thereby diminishing the expenditure on famine relief, is an important feature too often overlooked.

(True Copies and Extract.)

(Signed) R. V. SRINIVASIAR,
Secretary.

To the Secretary to Government, Revenue Department,
with one enclosure (to be returned).
" Collector of Kurnool.
" " of Cuddapah.
" Special Deputy Collector, Kurnool-Cuddapah Canal.
" Chief Engineer for irrigation.

Order—No. 546, Revenue, dated 9th July 1897.

Irrigation No. 2.

Recorded.

(True Extract.)

(Signed) G. STOKES,
Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement,
Land Records and Agriculture), with enclosure.
" the Public Works Department.

Exd. Shaik Karim.

60 Copies.

Government {1897} of Madras.

REVENUE.

Recd. } 1897. *Enclosures*
Regd. *Spare copies*

G.O., No. 546, 9th July 1897.

JULY.

Kurnool-Cuddapah Canal.

Recording Board's Proceedings submitting to Government report of the Special Deputy Collector, —, for the half-year ending 31st December 1896.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 14th May 1897, No. 368 :—

Read—the following letter from M.R.Ry. K. SUBBARAYUDU PANTULU Garu, Rao Bahadur, Canal Special Deputy Collector, to the Secretary to the Commissioner of R.S., L.R. and Agri. (through the Collectors of Kurnool and Cuddapah), dated Padidempad, 15th February 1897, No. 25 and Endorsements thereon by the Collectors of Kurnool and Cuddapah, dated 26th and 27th February 1897, respectively :—

Referring to the latter part of paragraph 3 of G.O., No. 964, Revenue, dated 7th November 1893, communicated with B.P., dated 16th February 1894, No. 87, I have the honour to submit the following report for the half-year ending 31st December last.

Movements of the Special officer during the half year.

2. From the beginning of July till about the first week of October last, I was engaged mainly in the preparation of the preliminary lists of canal-commanded lands (*a*) to be permanently transferred to wet and (*b*) fit to be recommended for imposition of the famine insurance rate at the next re-settlement, the said lists having been required by the Public Works Department in connection with paragraph 4 of G.O., No. 18, Revenue, dated 18th January 1896; and, as scarcity of water for the standing wet crops of the Cuddapah district depending on the canal began to be felt in the lower reaches of the canal in consequence of the ryots of the higher up canal taluks of the Kurnool district having simultaneously rushed in for canal water for their dry crops seeing the north-east monsoon fail, I was, for a month from about the middle of October last, chiefly engaged (*a*) in arranging with the Public Works Department officers in charge of the canal for the due regulation of water between the two districts so that the standing wet crops of the Cuddapah district might not be lost, and (*b*) in looking after the distribution of water under important common distributaries especially in the upper sub-division so that the ryots of higher up villages might not take undue advantage of their favourable situation to the detriment of standing wet and other crops in the lower down villages, as the ryots of different villages under all such common distributaries were found to be constantly disputing at the time. Towards the end of November, there was fortunately some light rainfall, and, with this, the rush for water for dry crops in the Kurnool district almost subsided; and, from about the beginning of December, I was chiefly busy with the check and inspection of the irrigated areas of certain important canal villages of the Kurnool district in which there has been very extensive dry crop irrigation this year. In all my tours through the Kurnool district portion under the canal, I have, of course, taken care to instruct and induce the Kurnool district canal ryots to try experiments in the cultivation of cummin seed, &c., and in all, 165 out of 184 days have been spent by me out of head-quarters during the half year under report.

Irrigation in the current year.

3. I beg to enclose a villagewar statement showing the extents actually canal irrigated in fasli 1305 (1895–96) under the first and second crops, and those irrigated in the current fasli up to the end of December last; and it will be seen from this statement that the extents irrigated under the canal this year up to the end of December last are as shown in the subjoined abstract in the different canal taluks of both the districts, when compared with the actual figures of fasli 1305 (1895–96):—

District.	Taluk.	Actual extent of fasli 1305.			Extent in fasli 1306 up to the end of December last.	Column 6 compared with column 3.	Column 6 compared with column 5.
		First crop.	Second crop.	Total.			
1	2	3	4	5	6	7	8
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
..	1. Ramallakot	1,687·80	431·76	2,119·56	2,657·78	+ 969·98	+ 538·22
..	2. Nandikotkur	5,100·98	693·51	5,794·49	24,616·12	+ 19,515·14	+ 18,821·63
..	3. Nandyal	2,668·87	762·47	3,431·34	12,064·94	+ 9,396·7	+ 8,633·60
..	4. Sirvel	3,361·77	178·75	3,540·52	11,848·77	+ 8,487	+ 8,308·25
..	5. Koilkuntla	333·48	70·72	404·20	5,167·38	+ 4,833·90	+ 4,763·18
	District total ..	13,152·90	2,137·21	15,290·11	56,354·99	+ 43,202·9	+ 41,064·88
..	6. Jammalamadugu ..	172·31	..	172·31	485·64	+ 313·33	+ 313·33
..	7. Proddatur	5,923·6	1,019·47	6,942·53	8,632·20	+ 2,709·14	+ 1,689·67
..	8. Cuddapah	7,215·67	3,158·33	10,374	7,943·39	+ 727·72	— 2,430·61
	District total ..	13,311·4	4,177·80	17,488·84	17,061·23	+ 3,750·19	— 427·61
	Canal total ..	26,463·94	6,315·01	32,778·95	73,416·22	+ 46,952·28	+ 40,637·27

4. Compared with the first crop figures of the previous fasli, all the five canal taluks of the Kurnool district show increase up to the end of December last, the total increase shown by the district being acres 43,202·9. Of the five taluks, the Nandikotkur taluk, which has the largest canal-commanded area, naturally shows the largest increase, namely, acres 19,515·14; Nandyal comes next with an increase of acres 9,396·7; Sirvel stands third with an increase of acres 8,487; then comes Koilkuntla with an increase of acres 4,833·90, and Ramallakot stands last with an increase of acres 969·98. The reason why the Ramallakot taluk shows comparatively a small increase is no other than that its canal-commanded area is very limited, being only a narrow strip of land situated between the canal on one side and the Tumbudra river itself on the other. In the Cuddapah district also, all the three canal taluks show increase, the increase in the Jammalamadugu taluk being acres 313·33, that in Proddatur acres 2,709·14, and that in Cuddapah acres 727·72, thus making a total increase of acres 3,750·19 for the whole district. Jammalamadugu is a nominal canal taluk with comparatively very limited canal-commanded area, and this is why that taluk shows the smallest increase, and the reason why the Cuddapah taluk shows less increase than Proddatur seems to be that its canal-commanded area with dry crops on is less than that of Proddatur, and Proddatur has consequently gone in for canal water for a much larger extent of dry crops than Cuddapah. The total increase shown by both the districts together is acres 46,952·28 or nearly acres 47,000 in round figures.

5. Compared with the *total* extents irrigated in fasli 1305 (1895–96) including both crops, the extents irrigated in the current fasli up to the end of December last show increase in all the canal taluks of both the districts excepting Cuddapah, and the reason why the Cuddapah taluk happens to show decrease here is no other than that its second crop extent coming on subsequent to December is generally large, being nearly as much as that of all the other seven canal taluks put together, and this taluk is consequently expected to more than make up the deficiency during the second-crop season. Looked at districtwar, the Kurnool district shows a total increase of acres 41,064·88, whereas the Cuddapah district shows a net decrease of acres 427·61, the total net increase under the entire canal being thus acres 40,637·27.

6. The total extent irrigated by the canal in the current fasli up to the end of December last comes to acres 73,416·22 against acres 32,778·95, the total extent irrigated by the canal in the last fasli including both crops; and to the above figure of the current fasli have yet to be added (*a*) second crops, such as dry season indigo, &c., yet to be raised and (*b*) extents yet to be discovered by the canal revenue inspectors in their inspections or "Azmoish" which is still in progress, and I think it would not be too much to expect the total extent for the current fasli to go up to acres 80,000, so that the current fasli will, in point of extent irrigated, be second to the

great famine year of 1876–77 (fasli 1286) when the total extent secured by the canal was acres 90,285, the highest figure ever reached as yet since the first opening of the canal for irrigation in 1863–64. The extent irrigated by the canal in 1891–92 (fasli 1301) which was acres 73,417 has hitherto been the second highest figure reached by the canal, but the current year's extent up to the end of December alone having already come up to acres 73,417 (a strange coincidence of figures) the year 1891–92 (fasli 1301) has certainly lost its position.

7. Had it not been for the light rains that fortunately fell in the latter part of November last, at least another 20,000 acres of dry crops, especially cholam, would have gone in for canal water this year from about Mutsumurri of the Nandikotkur taluk down to Rajoli of the Sirvel taluk, and the total extent irrigated by the canal reached a lakh of acres and thus exceeded even the great famine figure of 1876–77. The rains that fell in November, though light after all and not enough by themselves for the successful raising of any *fresh* crops, were found enough to save standing cholam and cotton crops, not already irrigated, without any further necessity of irrigation; and thus the ryots of several important canal villages between the two points of the canal mentioned above gave up the idea of using canal water in lots of cases where they had even prepared minor channels with the view of taking canal water. It may not be out of place to mention here that, when scarcity of water was felt for standing *wet* crops of the Proddatur and Cuddapah taluks about the middle of October last, it was found necessary by the lower sub-divisional officer to lay a temporary restriction on the issue of water for dry crops within the limits of his sub-division above Rajoli with the view of saving the said wet crops of the Cuddapah district; and, had this restriction which lasted for nearly twenty days from about the latter part of October not been placed, the Nandyal, Sirvel and Koilkuntla taluks would have irrigated a few more thousands of acres of dry crops, but then standing *wet* crops on over 10,000 of acres would have had to perish in the Proddatur and Cuddapah taluks of the Cuddapah district and any additional pecuniary advantage gained by the canal in higher up taluks would have been more than counterbalanced by loss of revenue to be sustained lower down as already stated in my letter, No. 389, dated the 5th December last, embodied in B.P., dated the 12th idem, No. 424.

8. Turning to villagewar particulars, it will be observed from the enclosed statement that, compared with the first-crop figures of fasli 1305 (1895–96), only two insignificant and nominal canal villages of the Ramallakot taluk, namely, Sunkesala and Kurnool, show some small decrease, whereas all the other eight villages of the taluk show good increase. In the Nandikotkur taluk similarly, only one insignificant canal village Boyarevula shows a nominal decrease of less than 2 acres, whereas all the other 44 villages including the three belonging to His Highness the Nizam exhibit good increase. In this taluk two villages Guntakandalu and Tangedantsa have newly come in for canal water this year. In the Nandyal taluk, two villages (Irnipad and Pulimaddi) show some small insignificant decrease, whereas all the other usual canal villages have shown good increase, and some seven villages have newly come in for canal water this year. These new villages are (1) Tirripad, (2) Koratamaddi, (3) Gadivemulu, (4) Kanalu, (5) Kottalu, (6) Bhímavaram and (7) Bollavaram. In the Sirvel taluk, four villages, namely, (1) Govindapalli, (2) Kobakandukur, (3) Rampalli and (4) Bodaram show some small decrease each; but, of these, the last-mentioned three have yet to be inspected by the canal revenue inspector. All the other usual canal villages of this taluk show good increase, and eight villages have newly come in for canal water this year from this taluk. They are (1) Dibaguntla, (2) Mullappa Chintakunta, (3) Pasarapad, (4) Julepalli, (5) Nagalavaram, (6) Vantivelagula, (7) Murtikristnapuram and (8) Gurupuramandinne. All the usual canal villages of the Koilkuntla taluk show good increase, and three villages of the taluk, namely, (1) Perayapalli, (2) Govindadinne and (3) Sarvoyapalli have newly come in for canal water this year. In the Jammalamadugu taluk of the Cuddapah district, Peddamudiyum is the only usual canal village which shows decrease, and the other usual canal village Jangalapalli shows good increase. (1) Kotalapalli, (2) Balapanagudur, (3) Uppalur and (4) Suddapalli are four new villages of this taluk which have taken canal water this year. The reason why

Peddamudiyum shows decrease has not been stated by the canal revenue inspector in the statement submitted by him. It will, however, be ascertained at the time of the water-rate settlement of the taluk. In the Proddatur taluk six villages, that is, (1) Kanagudur, (2) Annalur, (3) Idimadulla, (4) Shrotriyum Nerravada, (5) Shrotriyum Morrayapalli and (6) Pichichipad show small and insignificant decreases, whereas all the other usual canal villages show some good increase, and Nélatur is a village which has newly come in for canal water this year from this taluk. In the Cuddapah taluk there are altogether 27 canal villages this year; and, of these, 15 show nominal decrease, whereas all the other usual canal villages show increase, and Thollagangana palli is a village of this taluk which has newly taken canal water this year for a small extent of nearly 6 acres.

The heavy increase appearing in the case of most of the villages in the enclosed statement is, as already stated above, due to the failure of rains, and consequent extensive demand for water for dry crops; and decreases, wherever they appear, are generally small and insignificant and, as such, call for no remarks.

9. The subjoined statement compares the irrigated extents of the current fasli down to the end of December last with the actual figures of the last fasli 1305 (1895–96) according to crops of different rates:—

Ratewar comparison of the current year's irrigation up to the end of December with the actual irrigation of fasli 1305 (1895–96).

District.	Taluk.	First-class garden crops such as sugar-cane, &c., rate Rs. 6.						First-crop paddy and turmeric, rate Rs. 4.						"Bagayet" or garden crops including second-crop paddy, rate Rs. 3.					
		Fasli 1305.			Fasli 1306 up to the end of December.			Fasli 1305.			Fasli 1306 up to the end of December.			Fasli 1305.			Fasli 1306 up to the end of December.		
		On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool.	1. Ramallakot ..	171·70	0·70	172·40	126·36	2·86	129·22	1,202·62	15·71	1,218·33	1,329 62	59·34	1,388·96	573·73	11·64	585·37	330·68	18·93	349·61
	2. Nandikotkur ..	17·85	0·18	18·03	30·26	1·90	32·16	3,602·96	53·93	3,656·89	3,421·39	53·12	3,474·51	781·98	69·43	851·41	1,299·72	45·38	1,345·10
	3. Nandyal	2·72	0·48	3·20	4·98	0·90	5·88	1,859·44	36·28	1,895·72	2,091·35	48·48	2,139·83	391·14	53·06	444·20	510·04	111·0	621·04
	4. Sirvel	7·18	0·50	7·68	3·16	..	3·16	1,125·22	32·12	1,157·34	1,063·23	17·52	1,080·75	382·27	75·96	458·23	1,040·89	71·55	1,112·44
	5. Koilkuntla ..	2·34	0·13	2·47	2·34	..	2·34	187·56	5·7	192·63	213·82	4·74	218·56	90·17	7·24	97·41	94·0	2·75	96·75
	District Total ..	201·79	1·99	203·78	167·10	5·66	172·76	7,977·80	143·11	8,120·91	8,119·41	183·20	8,302·61	2,219·29	217·33	2,436·62	3,275 33	249·61	3,524·94
Cuddapah.	6. Jammalamadugu ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29·68	7·44	37·12
	7. Proddatur	29·38	..	29·38	23·39	4·30	27·69	2,734·75	46·15	2,780·90	3,038·52	75·45	3,113·97	2,738·42	218·63	2,957·05	2,043·66	203·31	2,246·97
	8. Cuddapah	15·47	0·71	16·18	31·10	..	31·10	5,615·83	128·62	5,744·45	4,570 40	90·49	4,660·89	3,704·71	143·79	3,848·50	1,862·07	162·04	2,024·11
	District Total ..	44·85	0·71	45·56	54·49	4·30	58·79	8,350·58	174·77	8,525·35	7,608·92	165·94	7,774·86	6,443·13	362·42	6,805·55	3,935·41	372·79	4,308·20
	Canal Total ..	246·64	2·70	249·34	221·59	9·96	231·55	16,328·38	317·88	16,646·26	15,728·33	349·14	16,077·47	8,662·42	579·75	9,242·17	7,210·74	622·40	7,833·14

District.	Taluk.	Mundla or tailed coarse paddy, rate Rs. 2.						Dry crops, rate Re. 1.						Total.					
		Fasli 1305.			Fasli 1306 up to end of December.			Fasli 1305.			Fasli 1306 up to end of December.			Fasli 1305.			Fasli 1306 up to end of December.		
		On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool.	1. Ramallakot ..	..	..	..	..	..	..	136·42	7·04	143·46	726·7	63·92	789·99	2,084·47	35·09	2,119·56	2,512·73	145·5	2,657·78
	2 Nandikotkur ..	185·69	8·18	193·87	259·98	4·46	264·44	737·76	336·53	1,074·29	18,864·52	635·39	19,499·91	5,326·24	468·25	5,794·49	23,875·87	740·25	24,616·12
	3. Nandyal	558·45	32·21	590·66	813·36	39·53	852 89	296·18	201·38	497·56	6,713·79	1,731·51	8,445·30	3,107·93	323·41	3,431·34	10,133·52	1,931·42	12,064·94
	4. Sirvel	836·55	127·83	964·38	1,758·32	32·83	1,791·15	532·94	419·95	952·89	7,312·1	549·26	7,861·27	2,884·16	656·36	3,540·52	11,177·61	671·16	11,848·77
	5. Koilkuntla ..	11·75	3·47	15·22	36·60	..	36·60	45·22	51·25	96·47	3,486·5	1,327·08	4,813·13	337·04	67·16	404·20	3,832·81	1,334·57	5,167·38
	District Total ..	1,592·44	171·69	1,764·13	2,868·26	76·82	2,945·08	1,748·52	1,016·15	2,764·67	37,102·44	4,307·16	41,409·60	13,739·84	1,550·27	15,290·11	51,532·54	4,822·45	56,354·99
Cuddapah.	6. Jammalamadugu ..	12·95	..	12·95	8·74	..	8·74	153·36	6·0	159·36	354·64	85·14	439·78	166·31	6·0	172·31	393·6	92·58	485·64
	7. Proddatur ..	89·99	0·38	90·37	6·6	..	6·6	945·94	138·89	1,084·83	2,626·71	610·80	3,237·51	6,538·48	404·05	6,942·53	7,738·34	893·86	8,632·20
	8. Cuddapah ..	7·69	..	7·69	..	..	..	618·23	138·95	757·18	1,047·49	179·80	1,227·29	9,961·93	412·07	10,374·0	7,511·06	432·33	7,943·39
	District Total ..	110·63	0·38	111·01	14·80	..	14·80	1,717·53	283·84	2,001·37	4,028·84	875·74	4,904·58	16,666·72	822·12	17,488·84	15,642·46	1,418·77	17,061·23
	Canal Total ..	1,703·07	172·07	1,875·14	2,883·06	76·82	2,959·88	3,466·05	1,299·99	4,766·04	41,131·28	5,182·90	46,314·18	30,406·56	2,372·39	32,778·95	67,175·0	6,241·22	73,416·22

It will be observed from this statement that, under the Rs. 6 rate, the Jammalamadugu taluk, which is an insignificant and nominal canal taluk, has no figures at all and that the variations are rather small in all the other canal taluks except Ramallakot where there appears a decrease of about 40 acres. This decrease is due partly to the extent under sugar-cane for this year being smaller than the last year's extent in consequence of some want of water felt towards the close of the last fasli at the time of sugar-cane sowings, and partly to certain mango topes which applied for canal water last year during the second-crop season and are thus included in the last year's figures not having as yet applied for water this year. Under the Rs. 4 rate, the Jammalamadugu taluk has again no figures at all; and, of the remaining seven canal taluks, Nandikotkur, Sirvel and Cuddapah alone show decrease, but this decrease seems only nominal for the most part, and is expected to be almost made up when the canal Revenue Inspectors of the taluks complete their "azmoish" or inspection work which is in progress. Under the Rs. 3 rate, the extent against the Koilkuntla taluk is almost equal to that of the last year; and, of the remaining seven taluks, Ramallakot, Proddatur and Cuddapah alone show decrease; but even in the case of these taluks the decrease is expected to be made up during the second-crop season by means of second-crop paddy in the Ramallakot taluk and through garden or "Bagayet" crops such as dry season indigo, &c., in the case of the Proddatur and Cuddapah taluks. There is no coarse or dry paddy at all in the Ramallakot taluk and so it has no figures to show under the Rs. 2 rate. The remaining four taluks of the Kurnool district show increase under this rate, whereas all the three canal taluks of the Cuddapah district show decrease. There is, however, the point for consideration that coarse or dry paddy is not an important crop at all in the canal villages of the Cuddapah district where the choice of the ryots is generally in favour of good paddy and garden or "Bagayet" crops; and even last year the total extent of coarse paddy in the Cuddapah district was only 111 acres. Under dry crops or the Re. 1 rate, all the eight canal taluks show increase, the increase in the case of the Nandikotkur, Nandyal, Sirvel, Koilkuntla and Proddatur taluks being particularly heavy. It will be observed that, taking both the districts together, the total increase under the Re. 1 rate was over 41,500 acres down to the end of December last, and to this figure some more pretty large area will, I feel sure, have to be added when the canal Revenue Inspectors complete their "azmoish" or inspections, especially in the Nandikotkur, Nandyal, Sirvel and Koilkuntla taluks.

10. I think it would be unfair to the canal if, before closing my remarks on the current year's irrigation, I omit to mention that, in addition to the total extent of acres 73,416·22 directly irrigated as particularized in the enclosed statement, the canal have supplied water to another 5,000 acres of paddy raised under canal-fed tanks in both the districts which, unlike in previous years, almost exclusively depended on the canal this year for their supply, their natural sources of supply having put in little or no water into them.

Introduction of experimental crops into the Kurnool district canal villages.

11. Referring to the latter part of paragraph 11 of my report for the half-year ending 30th June last, No. 234, dated the 21st September 1896, wherein I promised to ascertain and report the pecuniary outturn of certain dry season indigo experiments carried on in the Nandikotkur, Nandyal and Sirvel taluks in fasli 1305 (1895–96), I beg to submit that the crop raised by two ryots on about 13 acres in Yallur of the Sirvel taluk finally proved to be the best case for the year and yielded as much as nearly Rs. 60 per acre for one cutting, whereas the successful crop on 2 acres of Sambavaram of the same taluk is said to have gone for Rs. 20 an acre. In Kothapalli, hamlet of Nandyal, the successful crop was sold by the ryots to one Hayathkhan of Nandyal from Rs. 20 to Rs. 30 an acre according to density of crop; and two ryots of Nagatur of the Nandikotkur taluk sold their crop, while yet not fully grown, for Rs. 10 an acre. In all the above cases, the indigo stumps left were used by the ryots as manure for the succeeding paddy and other crops.

12. Out of the Rs. 1,000 advance kindly sanctioned by the Board in its Proceedings, dated 9th September 1896, Mis. No. 4355, cummin seed fit for sowing purposes was purchased for nearly Rs. 650 during the half-year under report; and, of the seed

purchased, about 100 maunds sufficient for 100 acres has been distributed to 187 ryots of fifty-nine villages; and, so far as information has been gathered, about 100 of the individuals who received the seed appear to have actually tried the experiments promised on about 75 acres in all. The reason why a large proportion of the recipients of the seed failed to carry on the experiments promised by them is no other than the unfavourable character of the season. At the time of the distribution of seed, people had hopes of rain yet and the season did not assume that severe and threatening aspect it subsequently did; and, when they noticed an unfavourable change in the season, such of the recipients of seed as had limited holdings under the canal gave up the idea of carrying on the promised experiments, and naturally went in for fodder and grain crops such as cholam, &c. Cummin seed crop raised is still standing on the ground in some cases, and in others it has just been removed. In some cases the crop raised has been attacked with disease; but, at the same time, there are also other cases in which the crop is in excellent condition, and good and highly encouraging outturns are expected. The experiments carried on this year in Kothapalli, hamlet of Nandyal, in Regadigudur, Chelimilla, Pamulapad, Velpanur, Vellala, Virapuram, Maravakonda, Allur, Maddigatla, Tarigoppula and Padidunpad of the Nandikotkur taluk have already produced good impressions on the minds of ryots about the short duration and the economical and remunerative character of the crop; and, although the precise outturns of all the successful cases are not yet known and must, therefore, be reserved for a future report, it seems to my mind that this year's experiments will also tend to multiply the number of experiments to be carried on in the coming year at different points of the canal in the Kurnool district, just as the few first experiments of last year (fasli 1305) have increased the current year's experiments about sixfold. Had the season been normal, many more experiments would certainly have been tried and the extent involved would also have been much larger; and it seems even now gratifying that, notwithstanding the adverse character of the season, so many as about 100 individuals have carried on the promised experiments this year. Steps have, of course, been taken to recover the value of the seed distributed from its recipients, and credit back the amount to the treasury before the close of the current official year.

13. As regards dry season or second crop indigo, the time for putting down that crop is only just at hand, and it is not precisely known in how many places in the Kurnool district it will be tried this year under the canal. Considering, however, the facts (*a*) that, owing to the adverse character of the season, the inclination of the agricultural classes is almost exclusively for food and fodder crops, and (*b*) that even rain-sown standing indigo of the current fasli had, in several places under the canal, been deliberately spoiled by ryots in the Kurnool district and grain crops put in on such lands since October last, I do not think we can expect much in the direction of dry season indigo experiments this year. I am, however, sanguine that the ryots of Kothapalli, hamlet of Nandyal, will not give it up even in a bad year like this, and I actually saw some of them preparing their lands for dry season indigo on my way up the other day. I expect some ryots of Govindadinne of the Koilkuntla taluk also to go in for dry season indigo this year.

14. In addition to cummin seed and dry season indigo, two "bagayet" crops adopted from the Cuddapah district portion under the canal and introduced into the canal taluks of the Kurnool district, the cultivation of ground-nut as an experiment has also been introduced into certain block lands of the Nandikotkur and Proddatur taluks during the half-year under report. This crop which was nowhere under the canal previously has been tried this year on two patches of about 0·75 acre each on the Pamulapad and Bhanumukkala blocks of the Kurnool district, and on about half an acre on the Madur block of the Proddatur taluk, Cuddapah district. The crops on the two patches of the Kurnool blocks have come on well and are in good condition. I saw them but ten days ago on my way up. The crop tried on the Madur block is reported to have been attacked with disease; but it was sown rather late some time about the end of October, and this is presumably why it is unhealthy. I feel sure that this ground-nut crop will easily spread in the canal villages of the Kurnool district if only

endeavours are maintained in that direction by the local revenue officers till the crop becomes a settled and recognised crop. No doubt, cummin seed is a more remunerative and less standing crop than ground-nut, but it is a very delicate crop and one often subject to diseases. Ground-nut, on the other hand, seems to be a comparatively hardy crop requiring less tillage and preparation of land as also less of manure, and it thus strikes me that it will spread under the canal in the Kurnool district with greater speed than even cummin seed or dry season indigo.

15. To my humble mind, introduction of fresh crops seems to be a subject which will have to be worked at patiently and with persistence and not hurried through. In the first place, it is not an easy matter to induce a conservative and an illiterate class of ryots like those we generally find in the Kurnool district to take to and try fresh and strange crops; and, in getting fresh crops tried, we have also to make some allowance for the ryots' want of *practical* experience in the treatment of the crops raised and consequent failures and short outturns here and there. Of course, all possible instruction is being given them as to how to raise the experimental crops told, but what they thus learn from word of mouth or from printed notices is, after all, only theoretical for them till they themselves try; and it cannot be as good a guide to them as practical experience gained by actually raising the crop once or twice. In cases where more than one individual have tried cummin seed cultivation this year in one and the same village, and where the crop of one individual has come out decidedly more successful than that of another, the ryots have already begun to see for themselves in what particular or particulars the owner of the defective crop has erred or failed, and it is practical experience of this kind that will surely help them.

I feel sure that all the three crops introduced will gradually spread and take root in the canal villages of the Kurnool district, but it would be necessary for the local officers to take some special interest in the matter for a few years till, as I have already stated above, the crops become settled and recognized crops.

16. Of the extent of acres 1,687·19 reported as granted under the block rules down to the end of June 1896, acres 235·55 have since been relinquished by Messrs. Ganapathy Rungasamy & Co. of Madur on the ground that acres 164·78 of it have been pronounced unirrigable by Public Works Department officers since their taking up the block, and that no means of irrigation have been provided for the remaining acres 70·77; and during the half year under report sanction has been accorded for the grant of fresh blocks to the extent of acres 156·17 so that the net total extent granted under the block rules down to the close of December last is acres 1,607·81 as particularised in the margin. Of the blocks mentioned in the margin, the first three of the Kurnool district and the first three of Cuddapah are in working order. It is a local ryot of Pudúr that took up block No. 1 of the Kurnool district; and in cases Nos. 2 and 3 of Kurnool, some families from the Tinnevelly and Tanjore districts have come and settled themselves down, not far from their blocks, and are working on their respective blocks. The holders of block No. 2 have purchased five pairs of bullocks and work with their own bullocks, whereas the holder of block No. 3 of Kurnool has been working with hired bullocks. Blocks Nos. 4 and 5 of Kurnool have only been recently granted and no work has as yet been begun on them. It is an Iyer from Tinnevelly that holds block No. 6 of Kurnool. He came and spent about Rs. 150 in levelling the block, but did not as yet raise any crop or crops on it. Of the Cuddapah district

District.	Village.	Extent.
1	2	3
		ACS.
Kurnool.	1. Pudur	10·20
	2. Pamulapad	209·20
	3. Bhanumukkala	270·71
	4. Do.	17·56
	5. Do.	17·63
	6. Pesaravoyi	71·35
	District Total ..	596·65
Cuddapah.	1. Madur	335·36
	2. Mudukur	121·51
	3. Bhadripalli	250·04
	4. Thudumuladinne	81·15
	5. Thawaripalli	102·12
	6. Thudumuladinne	14·71
	7. Yetur	106·27
	District Total ..	1011·16
	Grand Total ..	1607·81

blocks, the holders of Nos. 1 and 2 have come and settled themselves down near their blocks and are working with their own pairs of bullocks. The holders of block No. 3 come and stop in Mudukur during working seasons, and have not as yet become permanent residents near their block. They work with hired bullocks. The holders of blocks Nos. 4 and 5 of Cuddapah, to whom I have already referred in paragraph 16 of my report No 234 for the half-year ending 30th June last, have neither relinquished their blocks, nor have they come and begun work on them. Block No. 6 of Cuddapah is one granted for fasli 1306, and the holder has not yet come from Tinnevelly and begun work. He has, however, written to say that he would keep the block. Block No. 7 of Cuddapah has only been recently granted and is to run on from the next fasli 1307 (1897–98). Besides the blocks already granted five block applications to the total extent of acres 278·67 have since been received and are under inquiry with the Tahsildars concerned, and they will be disposed of in due course.

17. The following table shows the approximate extents as yet cultivated this year with different kinds of crops in the case of the six blocks (three of Kurnool and three of Cuddapah) on which work has been going on, and dry season indigo is expected to be tried on some more extent by some of these block holders. Paddy alone has been harvested in the case of the three Kurnool blocks, and the results are reported to be specially encouraging on the Pudúr and Pamulapad blocks, and ordinary on the Shanumakkalu block where a large portion of the crop was unfortunately attacked with disease. Cummin seed has just been removed from the Pamulapad block and the outturn appears promising, although the seed has not yet been thrashed out. All the other crops are still standing on the ground. In the case of the Cuddapah district working blocks, korra crop alone is stated to have as yet been harvested and the yield is said to be about one-fourth. All the other crops are still on the ground, but are stated to be in good condition on the whole. Writing on the 18th January last, Mr. Rungasami Iyer, the working share-holder of Messrs. Ganapathy & Co. of Madur, states: "I am glad to inform you that the transplanted experimental paddy is successful in the place where the land has been manured and ploughed last year. So I mean cultivating 100 acres paddy for the next year;" and it may not be out of place to mention here that the land on which he tried the experiment is pure black soil land, about the turning of which into successful paddy land the local ryots seem to have hitherto entertained doubts:—

District.	Number of block and village.	Paddy.	Turmeric.	Ragi.	Bariga.	Coriander.	Cummin seed.	Cholam.	Cotton.
1	2	3	4	5	6	7	8	9	10
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool ..	1. Pudúr	4·	..	..	..	..	..	..	..
	2. Pamulapad	12·	..	..	..	1·	2·50	20·	..
	3. Bhanumukkalu ..	30·	..	..	..	..	..	..	..
Cuddapah ..	1. Madur	29·10	..	6·	4·	..	10·	85·22	55·72
	2. Mudukur	2·	·70	..	..	8·6	7·77	18·38	..
	3. Bhadripalli	3·50	·48	..	59·9	..	..	25·4	..
	Total ..	80·60	1·18	6·	63·9	9·6	20·27	148·64	55·72

District.	Number of block and village.	Arika.	Korru.	Kusuma.	Ground-nut.	Bengal gram.	Horse gram.	Chilly.	Ulundu or black gram.	Total.
		11	12	13	14	15	16	17	18	19
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Kurnool ..	1. Pudúr	..	..	..	..	..	..	..	..	4·
	2. Pamulapad ..	..	..	..	·75	2·	10·	·50	10·	58·75
	3. Bhanumukkalu ..	..	..	..	·75	..	10·	..	5·	45·75
Cuddapah ..	1. Madur	24·89	..	31·94	·50	11·78	56·80	..	..	315·95
	2. Mudukur	7·73	13·30	..	..	..	..	..	..	57·94
	3. Bhadripalli	..	..	..	..	..	..	..	..	88·11
	Total ..	32·62	13·30	31·94	2·	13·78	76·80	·50	15·	570·50

18. Since the submission of the last half-yearly report, the undermentioned applications for fresh sluices and channels have been received from ryots of village at different points of the canal with offers to bring the extents specified under permanent wet cultivation should the sluices and channels applied for be provided; and, of course, the applications have all of them been forwarded to the Executive Engineer for favourable consideration and early orders. In almost all the cases the applicants express their willingness to take canal water from the coming fasli 1307 (1897-98); and there is no doubt whatever that, in many of these cases, the protection derived from the canal this year by villages already under its influence has taught the applicants a lesson and convinced them what a precious thing it is to have lands commanded by the canal and how unsafe it must be, on the other hand, to rely exclusively on rains. I hope the Public Works Department will, wherever feasible, comply with the applicants' requests during the present dry season and before the next rains begin:—

District.	Taluk.	Village.	Applicants.	Acreage promised to be permanently brought under wet cultivation.
				Acs.
Kurnool ..	Nandyal ..	Brahmanapalli ..	Annapu Reddi and others	120·30
	Do. ..	Guntanala	Gali Ramanna and others	20·
	Do. ..	Thogarchedu ..	Timmareddi and others	65·71
	Do. ..	Mulasagaram, hamlet of Nandyal.	Balakondareddi and others	60·
	Koilkuntla ..	Joladarasi	Narayana Reddi and others	56·
	Do. ..	Bhimunipad ..	Subbareddi and others	60·
	Do. ..	Gubagundum Jambuladinne.	Sanjeeva Reddi and others	100·
Cuddapah ..	Do. ..	Lingala	Kurnam Venkatasubbiah and others ..	80·15
	Proddatur ..	Vasudevapuram, hamlet of Velavali.	Boddi Venkata and others	40·
			Total ..	602·16

19. At the instance of the Superintending Engineer of the circle, I have been desired to assist the special Sub-divisional officer of the Public Works Department by preparing these preliminary fieldwar lists for all the canal villages of both the districts, and I began the work about the beginning of the current fasli; but, as the present adverse season and extensive demand for and use of canal water and consequent necessity for supervision of distribution of water under common and important channels and personal check and inspection of the irrigated areas here and there at important points have drawn me away from and did not allow time for that branch of work from about the middle of October last, I am sorry I have not been able to prepare the preliminary fieldwar lists required by the Public Works Department for more than 46 villages in all or about one-fourth the total number of villages commanded by the canal; and I think that the preparation of similar lists for all the other canal villages would itself require full six months' time, as it is not only the preparation of mere lists that is necessary, but also inspection of all the fields to be mentioned in the lists.

Preparation of lists of fields fit for charge of the famine insurance rate, &c., in connection with the next re-settlement.

20. The total term of three years already sanctioned for the special office expires on the 15th March next; and, unless it be thought necessary to retain the office for a year more or so in consideration of (*a*) the other lists that have yet to be prepared and are referred to in the immediately preceding paragraph and (*b*) the settlement of the current fasli canal water-rate of the remaining six canal taluks excepting Proddatur and Cuddapah, the jamabandi of which is to be conducted by the Collector himself, I humbly venture to repeat suggestion (*c*) made by me in paragraph 10 of my report No. 26, dated the 7th February 1896, embodied in G.O., No. 343, Revenue, dated the 21st July 1896, communicated with B.P., Mis. No. 4147, dated 24th August last. It will be observed that the above suggestion was to the effect that, in case the special office is done away with, it will be advantageous to entrust the canal charge of the entire length of the canal in the Kurnool district to one officer, that is, to the Head-quarter Deputy Collector of the Kurnool district, and similarly the canal charge within the limits of the Cuddapah district to the Head-quarter Deputy Collector of Cuddapah, giving each of these officers an additional temporary clerk on Rs. 25 to look after canal work. The various reasons which have induced me to put forward the above suggestion as one both economical and advantageous have been fully set forth in paragraph 10 of my report No. 26 referred to above, and, I therefore, think it redundant to reiterate them here. I hope, however, that my remarks on the subject in the said paragraph will kindly be perused and considered before the question is finally disposed of one way or the other. As regards the objection that the entrusting of canal work to the Head-quarter Deputy Collectors may cause inconvenience to parties in criminal cases, &c., by reason of the officers' absence in remote taluks, I humbly beg to submit that my own humble impression is that, as long as there are the Special Canal Revenue Inspectors and the Tahsildars to assist them in all miscellaneous canal matters, it will not be necessary for the Head-quarter Deputy Collectors to visit the canal taluks other than those comprising their own divisions more than once or twice at the most in the year; and each such visit need not take more than ten days or so. In the Kurnool district the entire length of the canal is about 145 miles as already stated by me; and of this, the Head-quarter Deputy Collector's division itself extends as far down as about the 90th mile stone; and again about the last 15 miles length of the Kurnool district portion of the canal happens to pass through a tract not important in an irrigation point of view. In the case of the Cuddapah district, Jammalamadugu is a nominal and an insignificant canal taluk hardly requiring any supervision, and the few canal villages of the Proddatur taluk which adjoins the Cuddapah taluk can, I think, be easily visited by the Head-quarter Deputy Collector of Cuddapah once or twice in the year without causing any real inconvenience to his other work in Cuddapah. Should any doubts be still entertained as regards the feasibility of the above suggestion, it strikes me that it may at least be given a few years' trial in case it may be decided to do away with the special office. In conclusion, I beg to add that I hope I will kindly be excused for having put forward the above suggestion again, as I have ventured to repeat it (*a*) in the firm belief that it will serve the interests of the canal better to keep its revenue charge in the hands of one officer for each district than to divide it again as before, and (*b*) for the following chief reasons among others:—

The Special office.

(1) That the arrangement suggested will secure economy, saving nearly all the expenditure of a special office.

(2) That it will produce in the minds of canal ryots a healthy and salubrious impression that the arrangement made by Government for the supervision of canal work is not of a temporary but of a permanent and standing nature.

(3) That the Nandikotkur taluk, which is the most important canal taluk in the Kurnool district containing more than half the canal-commanded area of the district as shown in the margin, contains, for the most part, the best of the canal-commanded lands and is thus, in fact, the taluk on which the future of the canal mainly depends and that, such a taluk forming his own division, the Head-quarter Deputy Collector must naturally be in a position to have the cultivation of experimental crops, which mean a good deal indeed for the future of the canal, carried on in the taluk with far greater effect than can be possibly the case under any other arrangement.

Taluk.	Approximate extent commanded by existing distributaries.
	Acs.
1. Ramallakot	2,900
2. Nandikotkur	51,500
3. Nandyal	14,900
4. Sirvel	18,900
5. Koilkuntla	6,300
Total ...	94,500

21. In conclusion, I beg to submit that the subject referred to in paragraph 20 is one requiring the favour of very early orders.

Endorsement by the Acting Collector of Kurnool, dated 26th February 1897, No. 'N'.

Forwarded.

2. The Deputy Collector's proposal to abolish the special office and to assign the whole of the canal work to the Head-quarter Deputy Collector does not commend itself to me for the reasons given in this office endorsement, Ref. on Perdl. No. 25-Ver., dated 28th February 1896, embodied in B.P., dated 7th May 1896, No. 91. Considering the state of the season and the heavy work devolving in consequence on the Divisional Officers, the further retention of the Deputy Collector for one year, at all events, seems advisable.

Endorsement by A. C. TATE, Esq., Collector of Cuddapah, dated 27th February 1897.

Forwarded.

2. Regarding paragraph 16, I beg to invite the attention of the Board to this office Ref. on Cur. No. 5843-Rev., dated 11th September 1896. The block of 100·27 acres of Yetur entered in item No. 7 has been relinquished on 31st August 1896.

3. I do not approve of the Head-quarter Deputy Collector being placed in charge of the canal in Proddatur and Jammalamadugu.

Resolution—dated 14th May 1897, No. 368.

With the endorsements read above, the Collectors of Kurnool and Cuddapah forward the report of the Special Deputy Collector in charge of the Kurnool-Cuddapah canal, for the half-year ending 31st December 1896.

2. The Deputy Collector was in camp for 165 out of 184 days during the half year. For the first three months of the period, he was chiefly engaged in preparing lists of lands which may be permanently transferred to wet, and of those on which an insurance rate may be imposed at the ensuing re-settlement. The rest of the period was devoted —

(1) to making arrangements with the Public Works Department to ensure a due regulation of water-supply to the fields in the two districts;

(2) to seeing that, in respect of villages served by important common distributaries, the ryots of villages higher up did not take water to the prejudice of those lower down; and

(3) to inspecting the irrigated areas of certain important canal villages of the Kurnool district, in which water was very largely taken for the irrigation of dry crops.

3. The tables appended to paragraphs 3 and 9 of the Deputy Collector's report show that the extent irrigated up to the end of December last was much larger than the first crop area recorded in the previous year in all the canal taluks of both the districts, the total increase being acres 46,952. Even as compared with the total extent under both the crops irrigated in fasli 1305, the cultivated area during the half year under report exhibits an increase in all the taluks except Cuddapah. In the Cuddapah taluk, however, it is stated that the second crop cultivation is generally very large being in fact equal to that in all the other seven taluks put together, and that the deficiency noticed above may therefore be expected to be more than made up during the second crop season. On the whole, there was marked increase in the year so far as the inspection already made is concerned; and the inspection by canal Revenue Inspectors, which is still in progress, and second crops, such as dry season indigo which may be raised hereafter, will doubtless add to this increase. The total irrigated area this year will, according to the Deputy Collector's estimate, go up to 80,000 acres, the increase being wholly under dry crops irrigated owing to the

unfavourable character of the season; and the current year's figure will be next only to that reached in the great famine year 1876–77, in which the total irrigated area amounted to 90,285 acres, the highest figure on record. The variations in the different taluks are fully explained in paragraphs 4 and 5 of the Deputy Collector's report.

4. Besides the 73,416 acres directly irrigated as stated above, the canal has supplied water to 5,000 acres of paddy raised under canal-fed tanks in both the districts, which, owing to their natural sources having afforded them little or no supply, had to depend almost exclusively on the canal this year.

5. Out of the sum of Rs. 1,000 placed at the disposal of the Deputy Collector for the purchase of cummin-seed to be supplied to ryots for experimental cultivation, as per B.P., dated 9th September 1896, Mis. No. 4355, nearly Rs. 650 were spent on the purchase of the seed. One hundred maunds were distributed to 187 ryots in 59 villages, of whom 100 ryots cultivated an extent of 75 acres. Many more would have tried the experiment, were it not for the unfavourable character of the season. The experiments made so far seem to promise well.

6. The experimental cultivation of ground-nut was successfully carried out on two patches of 75 cents each and the Deputy Collector thinks that this crop is likely to be very largely grown in the canal-commanded area, if the local revenue officers exert themselves in this direction, as the crop is more hardy than the cummin-seed and requires "less tillage and preparation of land as also less manure."

Ground-nut is very extensively grown in the South Arcot district and the Deputy Collector may obtain from the Collector of that district useful information about the cultivation of this crop for dissemination among the ryots.

With reference to the Special Deputy Collector's remarks in paragraphs 14 and 15 of his report to the effect that if the cultivation of special crops in the canal village is to prove a success, the local revenue officers should take some special interest in the matter, the Collectors of Kurnool and Cuddapah will be requested to consider the advisability of appointing as Revenue Inspectors, when vacancies occur, a few passed students of the Agricultural College and posting them to canal firkas.

7. During the half year under review, about 236 acres of land taken up under the block rules were relinquished, as nearly three-fourths of this area were pronounced to be unirrigable by the Public Works Department; and, as no means of irrigation had been provided for the remainder, including 156 acres granted during the half year, the total extent of land assigned under the block rules up to 31st December last was 1,608 acres. Three blocks in each of the two districts of Kurnool and Cuddapah aggregating 490 and 707 acres, respectively, are reported to be under cultivation, 571 acres having been cultivated in them with different crops as shown in the margin. It is satisfactory to note that ryots from Tanjore and Tinnevelly continue to take up more lands under the rules.

	Acs
Cholam	149
Paddy	81
Horsegram	77
Bariga	63
Cotton	56
Arika	33
Kusuma	32
Other crops	80
Total ...	571

8. Paragraph 18 of the Deputy Collector's report will be communicated to the Chief Engineer for Irrigation for consideration.

9. The retention of the Special Deputy Collector for a further period of one year has been approved by Government in its order Mis. No. 1801, Revenue, dated 3rd April 1897. It would be difficult to find an officer who would take more interest in this work than the Special Deputy Collector.

10. The Board would desire again to call attention to the figures quoted in its Proceedings, No. 40 dated 19th January 1897. The value of crops saved by the canal in the present year was then estimated at 17·12 lakhs, and the figure is likely to be exceeded when the full returns come in. It is a point which cannot, until recognised, be too much insisted on, that irrigation works should not be valued for the

mere interest which they bring in on the capital expenditure; their value as ensuring food-crops and protecting large tracts of country from famine, thereby diminishing the expenditure on famine relief, is an important feature too often overlooked.

(True Copies and Extract.)

(Signed) R. V. SRINIVASIAR,
Secretary.

To the Secretary to Government, Revenue Department,
with one enclosure (to be returned).
„ Collector of Kurnool.
„ „ of Cuddapah.
„ Special Deputy Collector, Kurnool-Cuddapah Canal.
„ Chief Engineer for irrigation.

Order—No. 546, Revenue, dated 9th July 1897.

Irrigation No. 2. Recorded.

(True Extract.)

(Signed) G. STOKES,
Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement,
Land Records and Agriculture), with enclosure.
„ the Public Works Department.

Exd. Shaik Karim.

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G.O., No. 546, 9th July 1897.

JULY.

Kurnool-Cuddapah Canal.

Recording Board's Proceedings submitting to Government report of the Special Deputy Collector, —, for the half-year ending 31st December 1896.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 14th May 1897, No. 368 :—

Read—the following letter from M.R.Ry. K. SUBBARAYUDU PANTULU Garu, Rao Bahadur, Canal Special Deputy Collector, to the Secretary to the Commissioner of R.S., L.R. and Agri. (through the Collectors of Kurnool and Cuddapah), dated Padidempad, 15th February 1897, No. 25 and Endorsements thereon by the Collectors of Kurnool and Cuddapah, dated 26th and 27th February 1897, respectively :—

Referring to the latter part of paragraph 3 of G.O., No. 964, Revenue, dated 7th November 1893, communicated with B.P., dated 16th February 1894, No. 87, I have the honour to submit the following report for the half-year ending 31st December last.

Movements of the Special officer during the half year.

2. From the beginning of July till about the first week of October last, I was engaged mainly in the preparation of the preliminary lists of canal-commanded lands (*a*) to be permanently transferred to wet and (*b*) fit to be recommended for imposition of the famine insurance rate at the next re-settlement, the said lists having been required by the Public Works Department in connection with paragraph 4 of G.O., No. 18, Revenue, dated 18th January 1896; and, as scarcity of water for the standing wet crops of the Cuddapah district depending on the canal began to be felt in the lower reaches of the canal in consequence of the ryots of the higher up canal taluks of the Kurnool district having simultaneously rushed in for canal water for their dry crops seeing the north-east monsoon fail, I was, for a month from about the middle of October last, chiefly engaged (*a*) in arranging with the Public Works Department officers in charge of the canal for the due regulation of water between the two districts so that the standing wet crops of the Cuddapah district might not be lost, and (*b*) in looking after the distribution of water under important common distributaries especially in the upper sub-division so that the ryots of higher up villages might not take undue advantage of their favourable situation to the detriment of standing wet and other crops in the lower down villages, as the ryots of different villages under all such common distributaries were found to be constantly disputing at the time. Towards the end of November, there was fortunately some light rainfall, and, with this, the rush for water for dry crops in the Kurnool district almost subsided; and, from about the beginning of December, I was chiefly busy with the check and inspection of the irrigated areas of certain important canal villages of the Kurnool district in which there has been very extensive dry crop irrigation this year. In all my tours through the Kurnool district portion under the canal, I have, of course, taken care to instruct and induce the Kurnool district canal ryots to try experiments in the cultivation of cummin seed, &c., and in all, 165 out of 184 days have been spent by me out of head-quarters during the half year under report.

Irrigation in the current year.

3. I beg to enclose a villagewar statement showing the extents actually canal irrigated in fasli 1305 (1895–96) under the first and second crops, and those irrigated in the current fasli up to the end of December last; and it will be seen from this statement that the extents irrigated under the canal this year up to the end of December last are as shown in the subjoined abstract in the different canal taluks of both the districts, when compared with the actual figures of fasli 1305 (1895–96) :—

District.	Taluk.	Actual extent of fasli 1305. First crop.	Second crop.	Total.	Extent in fasli 1306 up to the end of December last.	Column 6 compared with column 3.	Column 6 compared with column 5.
1	2	3	4	5	6	7	8
		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
..	1. Ramallakot	1,687·80	431·76	2,119·56	2,657·78	+ 969·98	+ 538·22
..	2. Nandikotkur	5,100·98	693·51	5,794·49	24,616·12	+ 19,515·14	+ 18,821·63
..	3. Nandyal	2,668·87	762·47	3,431·34	12,064·94	+ 9,396·7	+ 8,633·60
..	4. Sirvel	3,361·77	178·75	3,540·52	11,848·77	+ 8,487	+ 8,308·25
..	5. Koilkuntla	333·48	70·72	404·20	5,167·38	+ 4,833·90	+ 4,763·18
	District total ..	13,152·90	2,137·21	15,290·11	56,354·99	+ 43,202·9	+ 41,064·88
..	6. Jammalamadugu ..	172·31	..	172·31	485·64	+ 313·33	+ 313·33
..	7. Proddatur	5,923·6	1,019·47	6,942·53	8,632·20	+ 2,709·14	+ 1,689·67
..	8. Cuddapah	7,215·67	3,158·33	10,374	7,943·39	+ 727·72	— 2,430·61
	District total ..	13,311·4	4,177·80	17,488·84	17,061·23	+ 3,750·19	— 427·61
	Canal total ..	26,463·94	6,315·01	32,778·95	73,416·22	+ 46,952·28	+ 40,637·27

4. Compared with the first crop figures of the previous fasli, all the five canal taluks of the Kurnool district show increase up to the end of December last, the total increase shown by the district being acres 43,202·9. Of the five taluks, the Nandikotkur taluk, which has the largest canal-commanded area, naturally shows the largest increase, namely, acres 19,515·14; Nandyal comes next with an increase of acres 9,396·7; Sirvel stands third with an increase of acres 8,487; then comes Koilkuntla with an increase of acres 4,833·90, and Ramallakot stands last with an increase of acres 969·98. The reason why the Ramallakot taluk shows comparatively a small increase is no other than that its canal-commanded area is very limited, being only a narrow strip of land situated between the canal on one side and the Tumbudra river itself on the other. In the Cuddapah district also, all the three canal taluks show increase, the increase in the Jammalamadugu taluk being acres 313·33, that in Proddatur acres 2,709·14, and that in Cuddapah acres 727·72, thus making a total increase of acres 3,750·19 for the whole district. Jammalamadugu is a nominal canal taluk with comparatively very limited canal-commanded area, and this is why that taluk shows the smallest increase, and the reason why the Cuddapah taluk shows less increase than Proddatur seems to be that its canal-commanded area with dry crops on is less than that of Proddatur, and Proddatur has consequently gone in for canal water for a much larger extent of dry crops than Cuddapah. The total increase shown by both the districts together is acres 46,952·28 or nearly acres 47,000 in round figures.

5. Compared with the *total* extents irrigated in fasli 1305 (1895–96) including both crops, the extents irrigated in the current fasli up to the end of December last show increase in all the canal taluks of both the districts excepting Cuddapah, and the reason why the Cuddapah taluk happens to show decrease here is no other than that its second crop extent coming on subsequent to December is generally large, being nearly as much as that of all the other seven canal taluks put together, and this taluk is consequently expected to more than make up the deficiency during the second-crop season. Looked at districtwar, the Kurnool district shows a total increase of acres 41,064·88, whereas the Cuddapah district shows a net decrease of acres 427·61, the total net increase under the entire canal being thus acres 40,637·27.

6. The total extent irrigated by the canal in the current fasli up to the end of December last comes to acres 73,416·22 against acres 32,778·95, the total extent irrigated by the canal in the last fasli including both crops; and to the above figure of the current fasli have yet to be added (*a*) second crops, such as dry season indigo, &c., yet to be raised and (*b*) extents yet to be discovered by the canal revenue inspectors in their inspections or "Azmoish" which is still in progress, and I think it would not be too much to expect the total extent for the current fasli to go up to acres 80,000, so that the current fasli will, in point of extent irrigated, be second to the

great famine year of 1876–77 (fasli 1286) when the total extent secured by the canal was acres 90,285, the highest figure ever reached as yet since the first opening of the canal for irrigation in 1863–64. The extent irrigated by the canal in 1891–92 (fasli 1301) which was acres 73,417 has hitherto been the second highest figure reached by the canal, but the current year's extent up to the end of December alone having already come up to acres 73,417 (a strange coincidence of figures) the year 1891–92 (fasli 1301) has certainly lost its position.

7. Had it not been for the light rains that fortunately fell in the latter part of November last, at least another 20,000 acres of dry crops, especially cholam, would have gone in for canal water this year from about Mutsumurri of the Nandikotkur taluk down to Rajoli of the Sirvel taluk, and the total extent irrigated by the canal reached a lakh of acres and thus exceeded even the great famine figure of 1876–77. The rains that fell in November, though light after all and not enough by themselves for the successful raising of any *fresh* crops, were found enough to save standing cholam and cotton crops, not already irrigated, without any further necessity of irrigation; and thus the ryots of several important canal villages between the two points of the canal mentioned above gave up the idea of using canal water in lots of cases where they had even prepared minor channels with the view of taking canal water. It may not be out of place to mention here that, when scarcity of water was felt for standing *wet* crops of the Proddatur and Cuddapah taluks about the middle of October last, it was found necessary by the lower sub-divisional officer to lay a temporary restriction on the issue of water for dry crops within the limits of his sub-division above Rajoli with the view of saving the said wet crops of the Cuddapah district; and, had this restriction which lasted for nearly twenty days from about the latter part of October not been placed, the Nandyal, Sirvel and Koilkuntla taluks would have irrigated a few more thousands of acres of dry crops, but then standing *wet* crops on over 10,000 of acres would have had to perish in the Proddatur and Cuddapah taluks of the Cuddapah district and any additional pecuniary advantage gained by the canal in higher up taluks would have been more than counterbalanced by loss of revenue to be sustained lower down as already stated in my letter, No. 389, dated the 5th December last, embodied in B.P., dated the 12th idem, No. 424.

8. Turning to villagewar particulars, it will be observed from the enclosed statement that, compared with the first-crop figures of fasli 1305 (1895–96), only two insignificant and nominal canal villages of the Ramallakot taluk, namely, Sunkesala and Kurnool, show some small decrease, whereas all the other eight villages of the taluk show good increase. In the Nandikotkur taluk similarly, only one insignificant canal village Boyarevula shows a nominal decrease of less than 2 acres, whereas all the other 44 villages including the three belonging to His Highness the Nizam exhibit good increase. In this taluk two villages Guntakandalu and Tangedantsa have newly come in for canal water this year. In the Nandyal taluk, two villages (Irnipad and Pulimaddi) show some small insignificant decrease, whereas all the other usual canal villages have shown good increase, and some seven villages have newly come in for canal water this year. These new villages are (1) Tirripad, (2) Koratamaddi, (3) Gadivemulu, (4) Kanalu, (5) Kottalu, (6) Bhímavaram and (7) Bollavaram. In the Sirvel taluk, four villages, namely, (1) Govindapalli, (2) Kobakandukur, (3) Rampalli and (4) Bodaram show some small decrease each; but, of these, the last-mentioned three have yet to be inspected by the canal revenue inspector. All the other usual canal villages of this taluk show good increase, and eight villages have newly come in for canal water this year from this taluk. They are (1) Dibaguntla, (2) Mullappa Chintakunta, (3) Pasarapad, (4) Julepalli, (5) Nagalavaram, (6) Vantivelagula, (7) Murtikristnapuram and (8) Gurupuramandinne. All the usual canal villages of the Koilkuntla taluk show good increase, and three villages of the taluk, namely, (1) Perayapalli, (2) Govindadinne and (3) Sarvoyapalli have newly come in for canal water this year. In the Jammalamadugu taluk of the Cuddapah district, Peddamudiyum is the only usual canal village which shows decrease, and the other usual canal village Jangalapalli shows good increase. (1) Kotalapalli, (2) Balapanagudur, (3) Uppalur and (4) Suddapalli are four new villages of this taluk which have taken canal water this year. The reason why

Peddamudiyum shows decrease has not been stated by the canal revenue inspector in the statement submitted by him. It will, however, be ascertained at the time of the water-rate settlement of the taluk. In the Proddatur taluk six villages, that is, (1) Kanagudur, (2) Annalur, (3) Idimadulla, (4) Shrotriyum Nerravada, (5) Shrotriyum Morrayapalli and (6) Pichichipad show small and insignificant decreases, whereas all the other usual canal villages show some good increase, and Nélatur is a village which has newly come in for canal water this year from this taluk. In the Cuddapah taluk there are altogether 27 canal villages this year; and, of these, 15 show nominal decrease, whereas all the other usual canal villages show increase, and Thollaganganapalli is a village of this taluk which has newly taken canal water this year for a small extent of nearly 6 acres.

The heavy increase appearing in the case of most of the villages in the enclosed statement is, as already stated above, due to the failure of rains, and consequent extensive demand for water for dry crops; and decreases, wherever they appear, are generally small and insignificant and, as such, call for no remarks.

Ratewar comparison of the current year's irrigation up to the end of December with the actual irrigation of fasli 1305 (1895–96).

9. The subjoined statement compares the irrigated extents of the current fasli down to the end of December last with the actual figures of the last fasli 1305 (1895–96) according to crops of different rates :—

District.	Taluk.	First-class garden crops such as sugar-cane, &c., rate Rs. 6.						First-crop paddy and turmeric, rate Rs. 4.						"Bagayet" or garden crops including second-crop paddy, rate Rs. 3.					
		Fasli 1305.			Fasli 1306 up to the end of December.			Fasli 1305.			Fasli 1306 up to the end of December.			Fasli 1305.			Fasli 1306 up to the end of December.		
		On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.
Kurnool.	1. Ramallakot ..	171·70	0·70	172·40	126·36	2·86	129·22	1,202·62	15·71	1,218·33	1,329 62	59·34	1,388·96	573·73	11·64	585·37	330·68	18·93	349·61
	2. Nandikotkur ..	17·85	0·18	18·03	30·26	1 90	32·16	3,602·96	53·93	3,656·89	3,421·39	53·12	3,474·51	781·98	69·43	851·41	1,299·72	45·38	1,345 10
	3. Nandyal	2·72	0·48	3·20	4·98	0·90	5·88	1,859·44	36 28	1,895·72	2,091·35	48·48	2,139·83	391·14	53·06	444·20	510·04	111·0	621·04
	4. Sirvel	7·18	0·50	7·68	3·16	..	3·16	1,125·22	32·12	1,157·34	1,063·23	17·52	1,080·75	382·27	75·96	458·23	1,040·89	71·55	1,112·44
	5. Koilkuntla ..	2·34	0·13	2·47	2·34	..	2·34	187·56	5·7	192·63	213·82	4 74	218·56	90·17	7·24	97·41	94·0	2 75	96·75
	District Total ..	201·79	1·99	203·78	167·10	5·66	172·76	7,977·80	143·11	8,120·91	8,119·41	183·20	8,302·61	2,219 29	217·33	2,436·62	3,275 33	249·61	3,524·94
Cuddapah.	6. Jammalamadugu ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29 68	7·44	37·12
	7. Proddatur	29·38	..	29·38	23·39	4·30	27·69	2,734·75	46·15	2,780·90	3,038·52	75·45	3,113·97	2,738·42	218·63	2,957·05	2,043·66	203·31	2,246·97
	8. Cuddapah	15·47	0·71	16·18	31·10	..	31·10	5,615·83	128·62	5,744·45	4,570 40	90·49	4,660·89	3,704·71	143·79	3,848·50	1,862·07	162·04	2,024·11
	District Total ..	44·85	0·71	45·56	54·49	4·30	58·79	8,350·58	174·77	8,525·35	7,608·92	165·94	7,774·86	6,443·13	362·42	6,805·55	3,935·41	372·79	4,308·20
	Canal Total ..	246·64	2·70	249·34	221·59	9·96	231·55	16,328·38	317·88	16,646·26	15,728 33	349·14	16,077·47	8,662·42	579·75	9,242·17	7,210·74	622·40	7,833·14

District.	Taluk.	Mundla or tailed coarse paddy, rate Rs. 2.						Dry crops, rate Re. 1.						Total.					
		Fasli 1305.			Fasli 1306 up to end of December.			Fasli 1305.			Fasli 1306 up to end of December.			Fasli 1305.			Fasli 1306 up to end of December.		
		On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.	On application.	Without application.	Total.
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
		Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.
Kurnool.	1. Ramallakot ..	..	..	..	..	..	..	136·42	7· 04	143·46	726·7	63·92	789·99	2,084·47	35·09	2,119·56	2,512·73	145·5	2,657·78
	2 Nandikotkur ..	185·69	8·18	193·87	259·98	4·46	264·44	737·76	336·53	1,074·29	18,864·52	635·39	19,499·91	5,326·24	468·25	5,794·49	23,875·87	740·25	24,616·12
	3. Nandyal	558·45	32·21	590·66	813·36	39·53	852 89	296·18	201·38	497·56	6,713·79	1,731·51	8,445·30	3,107·93	323·41	3,431·34	10,133·52	1,931·42	12,064·94
	4. Sirvel	836·55	127·83	964·38	1,758·32	32·83	1,791·15	532·94	419·95	952·89	7,312·1	549·26	7,861·27	2,884·16	656·36	3,540·52	11,177·61	671·16	11,848·77
	5. Koilkuntla ..	11·75	3·47	15·22	36·60	..	36·60	45·22	51·25	96·47	3,456·5	1,327·08	4,813·13	337·04	67·16	404·20	3,832·81	1,334·57	5,167·38
	District Total ..	1,592·44	171·69	1,764·13	2,868·26	76·82	2,945·08	1,748·52	1,016·15	2,764·67	37,102·44	4,307·16	41,409·60	13,739·84	1,550·27	15,290·11	51,532·54	4,822·45	56,354·99
Cuddapah.	6. Jammalamadugu ..	12·95	..	12·95	8·74	..	8·74	153·36	6·0	159·36	354·64	85·14	439·78	166·31	6·0	172·31	393·6	92·58	485·64
	7. Proddatur ..	89·99	0·38	90·37	6·6	..	6·6	945·94	138·89	1,084·83	2,626·71	610·80	3,237·51	6,538·48	404·05	6,942·53	7,738·34	883·86	8,632·20
	8. Cuddapah ..	7·69	..	7·69	..	..	..	618·23	138·95	757·18	1,047·49	179·80	1,227·29	9,961·93	412·07	10,374·0	7,511·06	432·33	7,943·39
	District Total ..	110·63	0·38	111·01	14·80	..	14·80	1,717·53	283·84	2,001·37	4,028·84	875·74	4,904·58	16,666·72	822·12	17,488·84	15,642·46	1,418·77	17,061·23
	Canal Total ..	1,703·07	172·07	1,875·14	2,883·06	76·82	2,959·88	3,466·05	1,299·99	4,766·04	41,131·28	5,182·90	46,314·18	30,406·56	2,372·39	32,778·95	67,175·0	6,241·22	73,416·22

It will be observed from this statement that, under the Rs. 6 rate, the Jammalamadugu taluk, which is an insignificant and nominal canal taluk, has no figures at all and that the variations are rather small in all the other canal taluks except Ramallakot where there appears a decrease of about 40 acres. This decrease is due partly to the extent under sugar-cane for this year being smaller than the last year's extent in consequence of some want of water felt towards the close of the last fasli at the time of sugar-cane sowings, and partly to certain mango topes which applied for canal water last year during the second-crop season and are thus included in the last year's figures not having as yet applied for water this year. Under the Rs. 4 rate, the Jammalamadugu taluk has again no figures at all; and, of the remaining seven canal taluks, Nandikotkur, Sirvel and Cuddapah alone show decrease, but this decrease seems only nominal for the most part, and is expected to be almost made up when the canal Revenue Inspectors of the taluks complete their "azmoish" or inspection work which is in progress. Under the Rs. 3 rate, the extent against the Koilkuntla taluk is almost equal to that of the last year; and, of the remaining seven taluks, Ramallakot, Proddatur and Cuddapah alone show decrease; but even in the case of these taluks the decrease is expected to be made up during the second-crop season by means of second-crop paddy in the Ramallakot taluk and through garden or "Bagayet" crops such as dry season indigo, &c., in the case of the Proddatur and Cuddapah taluks. There is no coarse or dry paddy at all in the Ramallakot taluk and so it has no figures to show under the Rs. 2 rate. The remaining four taluks of the Kurnool district show increase under this rate, whereas all the three canal taluks of the Cuddapah district show decrease. There is, however, the point for consideration that coarse or dry paddy is not an important crop at all in the canal villages of the Cuddapah district where the choice of the ryots is generally in favour of good paddy and garden or "Bagayet" crops; and even last year the total extent of coarse paddy in the Cuddapah district was only 111 acres. Under dry crops or the Re. 1 rate, all the eight canal taluks show increase, the increase in the case of the Nandikotkur, Nandyal, Sirvel, Koilkuntla and Proddatur taluks being particularly heavy. It will be observed that, taking both the districts together, the total increase under the Re. 1 rate was over 41,500 acres down to the end of December last, and to this figure some more pretty large area will, I feel sure, have to be added when the canal Revenue Inspectors complete their "azmoish" or inspections, especially in the Nandikotkur, Nandyal, Sirvel and Koilkuntla taluks.

10. I think it would be unfair to the canal if, before closing my remarks on the current year's irrigation, I omit to mention that, in addition to the total extent of acres 73,416·22 directly irrigated as particularized in the enclosed statement, the canal have supplied water to another 5,000 acres of paddy raised under canal-fed tanks in both the districts which, unlike in previous years, almost exclusively depended on the canal this year for their supply, their natural sources of supply having put in little or no water into them.

Introduction of experimental crops into the Kurnool district canal villages.

11. Referring to the latter part of paragraph 11 of my report for the half-year ending 30th June last, No. 234, dated the 21st September 1896, wherein I promised to ascertain and report the pecuniary outturn of certain dry season indigo experiments carried on in the Nandikotkur, Nandyal and Sirvel taluks in fasli 1305 (1895–96), I beg to submit that the crop raised by two ryots on about 13 acres in Yallur of the Sirvel taluk finally proved to be the best case for the year and yielded as much as nearly Rs. 60 per acre for one cutting, whereas the successful crop on 2 acres of Sambavaram of the same taluk is said to have gone for Rs. 20 an acre. In Kothapalli, hamlet of Nandyal, the successful crop was sold by the ryots to one Hayathkhan of Nandyal from Rs. 20 to Rs. 30 an acre according to density of crop; and two ryots of Nagatur of the Nandikotkur taluk sold their crop, while yet not fully grown, for Rs. 10 an acre. In all the above cases, the indigo stumps left were used by the ryots as manure for the succeeding paddy and other crops.

12. Out of the Rs. 1,000 advance kindly sanctioned by the Board in its Proceedings, dated 9th September 1896, Mis. No. 4355, cummin seed fit for sowing purposes was purchased for nearly Rs. 650 during the half-year under report; and, of the seed

purchased, about 100 maunds sufficient for 100 acres has been distributed to 187 ryots of fifty-nine villages; and, so far as information has been gathered, about 100 of the individuals who received the seed appear to have actually tried the experiments promised on about 75 acres in all. The reason why a large proportion of the recipients of the seed failed to carry on the experiments promised by them is no other than the unfavourable character of the season. At the time of the distribution of seed, people had hopes of rain yet and the season did not assume that severe and threatening aspect it subsequently did; and, when they noticed an unfavourable change in the season, such of the recipients of seed as had limited holdings under the canal gave up the idea of carrying on the promised experiments, and naturally went in for fodder and grain crops such as cholam, &c. Cummin seed crop raised is still standing on the ground in some cases, and in others it has just been removed. In some cases the crop raised has been attacked with disease; but, at the same time, there are also other cases in which the crop is in excellent condition, and good and highly encouraging outturns are expected. The experiments carried on this year in Kothapalli, hamlet of Nandyal, in Regadigudur, Chelimilla, Pamulapad, Velpanur, Vellala, Virapuram, Maravakonda, Allur, Maddigatla, Tarigoppula and Padidunpad of the Nandikotkur taluk have already produced good impressions on the minds of ryots about the short duration and the economical and remunerative character of the crop; and, although the precise outturns of all the successful cases are not yet known and must, therefore, be reserved for a future report, it seems to my mind that this year's experiments will also tend to multiply the number of experiments to be carried on in the coming year at different points of the canal in the Kurnool district, just as the few first experiments of last year (fasli 1305) have increased the current year's experiments about sixfold. Had the season been normal, many more experiments would certainly have been tried and the extent involved would also have been much larger; and it seems even now gratifying that, notwithstanding the adverse character of the season, so many as about 100 individuals have carried on the promised experiments this year. Steps have, of course, been taken to recover the value of the seed distributed from its recipients, and credit back the amount to the treasury before the close of the current official year.

13. As regards dry season or second crop indigo, the time for putting down that crop is only just at hand, and it is not precisely known in how many places in the Kurnool district it will be tried this year under the canal. Considering, however, the facts (*a*) that, owing to the adverse character of the season, the inclination of the agricultural classes is almost exclusively for food and fodder crops, and (*b*) that even rain-sown standing indigo of the current fasli had, in several places under the canal, been deliberately spoiled by ryots in the Kurnool district and grain crops put in on such lands since October last, I do not think we can expect much in the direction of dry season indigo experiments this year. I am, however, sanguine that the ryots of Kothapalli, hamlet of Nandyal, will not give it up even in a bad year like this, and I actually saw some of them preparing their lands for dry season indigo on my way up the other day. I expect some ryots of Govindadinne of the Koilkuntla taluk also to go in for dry season indigo this year.

14. In addition to cummin seed and dry season indigo, two "bagayet" crops adopted from the Cuddapah district portion under the canal and introduced into the canal taluks of the Kurnool district, the cultivation of ground-nut as an experiment has also been introduced into certain block lands of the Nandikotkur and Proddatur taluks during the half-year under report. This crop which was nowhere under the canal previously has been tried this year on two patches of about 0·75 acre each on the Pamulapad and Bhanumukkala blocks of the Kurnool district, and on about half an acre on the Madur block of the Proddatur taluk, Cuddapah district. The crops on the two patches of the Kurnool blocks have come on well and are in good condition. I saw them but ten days ago on my way up. The crop tried on the Madur block is reported to have been attacked with disease; but it was sown rather late some time about the end of October, and this is presumably why it is unhealthy. I feel sure that this ground-nut crop will easily spread in the canal villages of the Kurnool district if only

endeavours are maintained in that direction by the local revenue officers till the crop becomes a settled and recognised crop. No doubt, cummin seed is a more remunerative and less standing crop than ground-nut, but it is a very delicate crop and one often subject to diseases. Ground-nut, on the other hand, seems to be a comparatively hardy crop requiring less tillage and preparation of land as also less of manure, and it thus strikes me that it will spread under the canal in the Kurnool district with greater speed than even cummin seed or dry season indigo.

15. To my humble mind, introduction of fresh crops seems to be a subject which will have to be worked at patiently and with persistence and not hurried through. In the first place, it is not an easy matter to induce a conservative and an illiterate class of ryots like those we generally find in the Kurnool district to take to and try fresh and strange crops; and, in getting fresh crops tried, we have also to make some allowance for the ryots' want of *practical* experience in the treatment of the crops raised and consequent failures and short outturns here and there. Of course, all possible instruction is being given them as to how to raise the experimental crops told, but what they thus learn from word of mouth or from printed notices is, after all, only theoretical for them till they themselves try; and it cannot be as good a guide to them as practical experience gained by actually raising the crop once or twice. In cases where more than one individual have tried cummin seed cultivation this year in one and the same village, and where the crop of one individual has come out decidedly more successful than that of another, the ryots have already begun to see for themselves in what particular or particulars the owner of the defective crop has erred or failed, and it is practical experience of this kind that will surely help them.

I feel sure that all the three crops introduced will gradually spread and take root in the canal villages of the Kurnool district, but it would be necessary for the local officers to take some special interest in the matter for a few years till, as I have already stated above, the crops become settled and recognized crops.

16. Of the extent of acres 1,687·19 reported as granted under the block rules down to the end of June 1896, acres 235·55 have since been relinquished by Messrs. Ganapathy Rungasamy & Co. of Madur on the ground that acres 164·78 of it have been pronounced unirrigable by Public Works Department officers since their taking up the block, and that no means of irrigation have been provided for the remaining acres 70·77; and during the half-year under report sanction has been accorded for the grant of fresh blocks to the extent of acres 156·17 so that the net total extent granted under the block rules down to the close of December last is acres 1,607·81 as particularised in the margin. Of the blocks mentioned in the margin, the first three of the Kurnool district and the first three of Cuddapah are in working order. It is a local ryot of Pudúr that took up block No. 1 of the Kurnool district; and in cases Nos. 2 and 3 of Kurnool, some families from the Tinnevelly and Tanjore districts have come and settled themselves down, not far from their blocks, and are working on their respective blocks. The holders of block No. 2 have purchased five pairs of bullocks and work with their own bullocks, whereas the holder of block No. 3 of Kurnool has been working with hired bullocks. Blocks Nos. 4 and 5 of Kurnool have only been recently granted and no work has as yet been begun on them. It is an Iyer from Tinnevelly that holds block No. 6 of Kurnool. He came and spent about Rs. 150 in levelling the block, but did not as yet raise any crop or crops on it. Of the Cuddapah district

District.	Village.	Extent.
1	2	3
		Acs.
Kurnool.	1. Pudur	10·20
	2. Pamulapad	209·20
	3. Bhanumukkala	270·71
	4. Do.	17·56
	5. Do.	17·63
	6. Pesaravoyi	71·35
	District Total ..	596·65
Cuddapah.	1. Madur	335·36
	2. Mudukur	121·51
	3. Bhadripalli	250·04
	4. Thudumuladinne	81·15
	5. Thawaripalli	102·12
	6. Thudumuladinne	14·71
	7. Yetur	106·27
	District Total ..	1011·16
	Grand Total ..	1607·81

blocks, the holders of Nos. 1 and 2 have come and settled themselves down near their blocks and are working with their own pairs of bullocks. The holders of block No. 3 come and stop in Mudukur during working seasons, and have not as yet become permanent residents near their block. They work with hired bullocks. The holders of blocks Nos. 4 and 5 of Cuddapah, to whom I have already referred in paragraph 16 of my report No 234 for the half-year ending 30th June last, have neither relinquished their blocks, nor have they come and begun work on them. Block No. 6 of Cuddapah is one granted for fasli 1306, and the holder has not yet come from Tinnevelly and begun work. He has, however, written to say that he would keep the block. Block No. 7 of Cuddapah has only been recently granted and is to run on from the next fasli 1307 (1897–98). Besides the blocks already granted five block applications to the total extent of acres 278·67 have since been received and are under inquiry with the Tahsildars concerned, and they will be disposed of in due course.

17. The following table shows the approximate extents as yet cultivated this year with different kinds of crops in the case of the six blocks (three of Kurnool and three of Cuddapah) on which work has been going on, and dry season indigo is expected to be tried on some more extent by some of these block holders. Paddy alone has been harvested in the case of the three Kurnool blocks, and the results are reported to be specially encouraging on the Pudúr and Pamulapad blocks, and ordinary on the Shanumakkalu block where a large portion of the crop was unfortunately attacked with disease. Cummin seed has just been removed from the Pamulapad block and the outturn appears promising, although the seed has not yet been thrashed out. All the other crops are still standing on the ground. In the case of the Cuddapah district working blocks, korra crop alone is stated to have as yet been harvested and the yield is said to be about one-fourth. All the other crops are still on the ground, but are stated to be in good condition on the whole. Writing on the 18th January last, Mr. Rungasami Iyer, the working share-holder of Messrs. Ganapathy & Co. of Madur, states: "I am glad to inform you that the transplanted experimental paddy is successful in the place where the land has been manured and ploughed last year. So I mean cultivating 100 acres paddy for the next year;" and it may not be out of place to mention here that the land on which he tried the experiment is pure black soil land, about the turning of which into successful paddy land the local ryots seem to have hitherto entertained doubts:—

District.	Number of block and village.	Paddy.	Turmeric.	Ragi.	Bariga.	Coriander.	Cummin seed.	Cholam.	Cotton.
1	2	3	4	5	6	7	8	9	10
		Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.
Kurnool ..	1. Pudúr	4·	..	..	..	..	..	..	..
	2. Pamulapad	12·	..	..	..	1·	2·50	20·	..
	3. Bhanumukkalu ..	30·	..	..	..	..	..	..	..
Cuddapah ..	1. Madur	29·10	..	6·	4·	..	10·	85·22	55·72
	2. Mudukur	2·	·70	..	..	8·6	7·77	18·38	..
	3. Bhadripalli	3·50	·48	..	59·9	..	..	25·4	..
	Total ..	80·60	1·18	6·	63·9	9·6	20·27	148·64	55·72

District.	Number of block and village.	Arika.	Korru.	Kusuma.	Ground-nut.	Bengal gram.	Horse gram.	Chilly.	Ulundu or black gram.	Total.
		11	12	13	14	15	16	17	18	19
		Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.
Kurnool ..	1. Pudúr	..	..	..	..	..	..	..	..	4·
	2. Pamulapad	..	..	..	·75	2·	10·	·50	10·	58·75
	3. Bhanumukkalu ..	..	..	..	·75	..	10·	..	5·	45·75
Cuddapah ..	1. Madur	24·89	..	31·94	·50	11·78	56·80	..	..	315·95
	2. Mudukur	7·73	13·30	..	..	..	..	..	..	57·94
	3. Bhadripalli	..	..	..	..	..	..	..	..	88·11
	Total ..	32·62	13·30	31·94	2·	13·78	76·80	·50	15·	570·50

18. Since the submission of the last half-yearly report, the undermentioned applications for fresh sluices and channels have been received from ryots of village at different points of the canal with offers to bring the extents specified under permanent wet cultivation should the sluices and channels applied for be provided; and, of course, the applications have all of them been forwarded to the Executive Engineer for favourable consideration and early orders. In almost all the cases the applicants express their willingness to take canal water from the coming fasli 1307 (1897-98); and there is no doubt whatever that, in many of these cases, the protection derived from the canal this year by villages already under its influence has taught the applicants a lesson and convinced them what a precious thing it is to have lands commanded by the canal and how unsafe it must be, on the other hand, to rely exclusively on rains. I hope the Public Works Department will, wherever feasible, comply with the applicants' requests during the present dry season and before the next rains begin:—

District.	Taluk.	Village.	Applicants.	Acreage promised to be permanently brought under wet cultivation.
				Acs.
Kurnool ..	Nandyal ..	Brahmanapalli ..	Annapu Reddi and others	120·30
	Do. ..	Guntanala	Gali Ramanna and others	20·
	Do. ..	Thogarchedu ..	Timmareddi and others	65·71
	Do. ..	Mulasagaram, hamlet of Nandyal.	Balakondareddi and others	60·
	Koilkuntla ..	Joladarasi	Narayana Reddi and others	56·
	Do. ..	Bhimunipad ..	Subbareddi and others	60·
	Do. ..	Gubagundum Jambuladinne.	Sanjeeva Reddi and others	100·
	Do. ..	Lingala	Kurnam Venkatasubbiah and others ..	80·15
Cuddapah ..	Proddatur ..	Vasudevapuram, hamlet of Velavali.	Boddi Venkata and others	40·
			Total ..	602·16

19. At the instance of the Superintending Engineer of the circle, I have been desired to assist the special Sub-divisional officer of the Public Works Department by preparing these preliminary fieldwar lists for all the canal villages of both the districts, and I began the work about the beginning of the current fasli; but, as the present adverse season and extensive demand for and use of canal water and consequent necessity for supervision of distribution of water under common and important channels and personal check and inspection of the irrigated areas here and there at important points have drawn me away from and did not allow time for that branch of work from about the middle of October last, I am sorry I have not been able to prepare the preliminary fieldwar lists required by the Public Works Department for more than 46 villages in all or about one-fourth the total number of villages commanded by the canal; and I think that the preparation of similar lists for all the other canal villages would itself require full six months' time, as it is not only the preparation of mere lists that is necessary, but also inspection of all the fields to be mentioned in the lists.

Preparation of lists of fields fit for charge of the famine insurance rate, &c., in connection with the next re-settlement.

20. The total term of three years already sanctioned for the special office expires on the 15th March next; and, unless it be thought necessary to retain the office for a year more or so in consideration of (*a*) the other lists that have yet to be prepared and are referred to in the immediately preceding paragraph and (*b*) the settlement of the current fasli canal water-rate of the remaining six canal taluks excepting Proddatur and Cuddapah, the jamabandi of which is to be conducted by the Collector himself, I humbly venture to repeat suggestion (*c*) made by me in paragraph 10 of my report No. 26, dated the 7th February 1896, embodied in G.O., No. 343, Revenue, dated the 21st July 1896, communicated with B.P., Mis. No. 4147, dated 24th August last. It will be observed that the above suggestion was to the effect that, in case the special office is done away with, it will be advantageous to entrust the canal charge of the entire length of the canal in the Kurnool district to one officer, that is, to the Head-quarter Deputy Collector of the Kurnool district, and similarly the canal charge within the limits of the Cuddapah district to the Head-quarter Deputy Collector of Cuddapah, giving each of these officers an additional temporary clerk on Rs. 25 to look after canal work. The various reasons which have induced me to put forward the above suggestion as one both economical and advantageous have been fully set forth in paragraph 10 of my report No. 26 referred to above, and, I therefore, think it redundant to reiterate them here. I hope, however, that my remarks on the subject in the said paragraph will kindly be perused and considered before the question is finally disposed of one way or the other. As regards the objection that the entrusting of canal work to the Head-quarter Deputy Collectors may cause inconvenience to parties in criminal cases, &c., by reason of the officers' absence in remote taluks, I humbly beg to submit that my own humble impression is that, as long as there are the Special Canal Revenue Inspectors and the Tahsildars to assist them in all miscellaneous canal matters, it will not be necessary for the Head-quarter Deputy Collectors to visit the canal taluks other than those comprising their own divisions more than once or twice at the most in the year; and each such visit need not take more than ten days or so. In the Kurnool district the entire length of the canal is about 145 miles as already stated by me; and of this, the Head-quarter Deputy Collector's division itself extends as far down as about the 90th mile stone; and again about the last 15 miles length of the Kurnool district portion of the canal happens to pass through a tract not important in an irrigation point of view. In the case of the Cuddapah district, Jammalamadugu is a nominal and an insignificant canal taluk hardly requiring any supervision, and the few canal villages of the Proddatur taluk which adjoins the Cuddapah taluk can, I think, be easily visited by the Head-quarter Deputy Collector of Cuddapah once or twice in the year without causing any real inconvenience to his other work in Cuddapah. Should any doubts be still entertained as regards the feasibility of the above suggestion, it strikes me that it may at least be given a few years' trial in case it may be decided to do away with the special office. In conclusion, I beg to add that I hope I will kindly be excused for having put forward the above suggestion again, as I have ventured to repeat it (*a*) in the firm belief that it will serve the interests of the canal better to keep its revenue charge in the hands of one officer for each district than to divide it again as before, and (*b*) for the following chief reasons among others:—

(1) That the arrangement suggested will secure economy, saving nearly all the expenditure of a special office.

(2) That it will produce in the minds of canal ryots a healthy and salubrious impression that the arrangement made by Government for the supervision of canal work is not of a temporary but of a permanent and standing nature.

(3) That the Nandikotkur taluk, which is the most important canal taluk in the Kurnool district containing more than half the canal-commanded area of the district as shown in the margin, contains, for the most part, the best of the canal-commanded lands and is thus, in fact, the taluk on which the future of the canal mainly depends and that such a taluk forming his own division, the Head-quarter Deputy Collector must naturally be in a position to have the cultivation of experimental crops, which mean a good deal indeed for the future of the canal, carried on in the taluk with far greater effect than can be possibly the case under any other arrangement.

Taluk.	Approximate extent commanded by existing distributaries.
	Acs.
1. Ramallakot	2,900
2. Nandikotkur	51,500
3. Nandyal	14,900
4. Sirvel	18,900
5. Koilkuntla	6,300
Total ...	94 500

21. In conclusion, I beg to submit that the subject referred to in paragraph 20 is one requiring the favour of very early orders.

Endorsement by the Acting Collector of Kurnool, dated 26th February 1897, No. 'N'.

Forwarded.

2. The Deputy Collector's proposal to abolish the special office and to assign the whole of the canal work to the Head-quarter Deputy Collector does not commend itself to me for the reasons given in this office endorsement, Ref. on Perdl. No. 25-Ver., dated 28th February 1896, embodied in B.P., dated 7th May 1896, No. 91. Considering the state of the season and the heavy work devolving in consequence on the Divisional Officers, the further retention of the Deputy Collector for one year, at all events, seems advisable.

Endorsement by A. C. TATE, Esq., Collector of Cuddapah, dated 27th February 1897.

Forwarded.

2. Regarding paragraph 16, I beg to invite the attention of the Board to this office Ref. on Cur. No. 5843-Rev., dated 11th September 1896. The block of 100·27 acres of Yetur entered in item No. 7 has been relinquished on 31st August 1896.

3. I do not approve of the Head-quarter Deputy Collector being placed in charge of the canal in Proddatur and Jammalamadugu.

Resolution—dated 14th May 1897, No. 368.

With the endorsements read above, the Collectors of Kurnool and Cuddapah forward the report of the Special Deputy Collector in charge of the Kurnool-Cuddapah canal, for the half-year ending 31st December 1896.

2. The Deputy Collector was in camp for 165 out of 184 days during the half year. For the first three months of the period, he was chiefly engaged in preparing lists of lands which may be permanently transferred to wet, and of those on which an insurance rate may be imposed at the ensuing re-settlement. The rest of the period was devoted —

(1) to making arrangements with the Public Works Department to ensure a due regulation of water-supply to the two districts;

(2) to seeing that, in respect of villages served by important common distributaries, the ryots of villages higher up did not take water to the prejudice of those lower down; and

(3) to inspecting the irrigated areas of certain important canal villages of the Kurnool district, in which water was very largely taken for the irrigation of dry crops.

3. The tables appended to paragraphs 3 and 9 of the Deputy Collector's report show that the extent irrigated up to the end of December last was much larger than the first crop area recorded in the previous year in all the canal taluks of both the districts, the total increase being acres 46,952. Even as compared with the total extent under both the crops irrigated in fasli 1305, the cultivated area during the half year under report exhibits an increase in all the taluks except Cuddapah. In the Cuddapah taluk, however, it is stated that the second crop cultivation is generally very large being in fact equal to that in all the other seven taluks put together, and that the deficiency noticed above may therefore be expected to be more than made up during the second crop season. On the whole, there was marked increase in the year so far as the inspection already made is concerned; and the inspection by canal Revenue Inspectors, which is still in progress, and second crops, such as dry season indigo which may be raised hereafter, will doubtless add to this increase. The total irrigated area this year will, according to the Deputy Collector's estimate, go up to 80,000 acres, the increase being wholly under dry crops irrigated owing to the unfavourable character of the season; and the current year's figure will be next only to that reached in the great famine year 1876–77, in which the total irrigated area amounted to 90,285 acres, the highest figure on record. The variations in the different taluks are fully explained in paragraphs 4 and 5 of the Deputy Collector's report.

4. Besides the 73,416 acres directly irrigated as stated above, the canal has supplied water to 5,000 acres of paddy raised under canal-fed tanks in both the districts, which, owing to their natural sources having afforded them little or no supply, had to depend almost exclusively on the canal this year.

5. Out of the sum of Rs. 1,000 placed at the disposal of the Deputy Collector for the purchase of cummin-seed to be supplied to ryots for experimental cultivation, as per B.P., dated 9th September 1896, Mis. No. 4355, nearly Rs. 650 were spent on the purchase of the seed. One hundred maunds were distributed to 187 ryots in 59 villages, of whom 100 ryots cultivated an extent of 75 acres. Many more would have tried the experiment, were it not for the unfavourable character of the season. The experiments made so far seem to promise well.

6. The experimental cultivation of ground-nut was successfully carried out on two patches of 75 cents each and the Deputy Collector thinks that this crop is likely to be very largely grown in the canal-commanded area, if the local revenue officers exert themselves in this direction, as the crop is more hardy than the cummin-seed and requires "less tillage and preparation of land as also less manure."

Ground-nut is very extensively grown in the South Arcot district and the Deputy Collector may obtain from the Collector of that district useful information about the cultivation of this crop for dissemination among the ryots

With reference to the Special Deputy Collector's remarks in paragraphs 14 and 15 of his report to the effect that if the cultivation of special crops in the canal village is to prove a success, the local revenue officers should take some special interest in the matter, the Collectors of Kurnool and Cuddapah will be requested to consider the advisability of appointing as Revenue Inspectors, when vacancies occur, a few passed students of the Agricultural College and posting them to canal firkas.

7. During the half year under review, about 236 acres of land taken up under the block rules were relinquished, as nearly three-fourths of this area were pronounced to be unirrigable by the Public Works Department; and, as no means of irrigation had been provided for the remainder, including 156 acres granted during the half year, the total extent of land assigned under the block rules up to 31st December last was 1,608 acres. Three blocks in each of the two districts of Kurnool and Cuddapah aggregating 490 and 707 acres, respectively, are reported to be under cultivation, 571 acres having been cultivated in them with different crops as shown in the margin. It is satisfactory to note that ryots from Tanjore and Tinnevelly continue to take up more lands under the rules.

	Acs
Cholam	149
Paddy	81
Horsegram	77
Bariga	63
Cotton	56
Arika	33
Kusuma	32
Other crops	80
Total ...	571

8. Paragraph 18 of the Deputy Collector's report will be communicated to the Chief Engineer for Irrigation for consideration.

9. The retention of the Special Deputy Collector for a further period of one year has been approved by Government in its order Mis. No. 1801, Revenue, dated 3rd April 1897. It would be difficult to find an officer who would take more interest in this work than the Special Deputy Collector.

10. The Board would desire again to call attention to the figures quoted in its Proceedings, No. 40 dated 19th January 1897. The value of crops saved by the canal in the present year was then estimated at 17·12 lakhs, and the figure is likely to be exceeded when the full returns come in. It is a point which cannot, until recognised, be too much insisted on, that irrigation works should not be valued for the

mere interest which they bring in on the capital expenditure; their value as ensuring food-crops and protecting large tracts of country from famine, thereby diminishing the expenditure on famine relief, is an important feature too often overlooked.

(True Copies and Extract.)

(Signed) R. V. SRINIVASIAR,
Secretary.

To the Secretary to Government, Revenue Department,
with one enclosure (to be returned).
„ Collector of Kurnool.
„ „ of Cuddapah.
„ Special Deputy Collector, Kurnool-Cuddapah Canal.
„ Chief Engineer for irrigation.

Order—No. 546, Revenue, dated 9th July 1897.

Irrigation No. 2. Recorded.

(True Extract.)

for Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement,
Land Records and Agriculture), with enclosure.
„ the Public Works Department.

Exd. Shaik Karim.

60 Copies.