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Government of Madras.

Public Works DEPARTMENT.

G.O. No.

2788

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26-9-1866.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
26th September 1864.*

No. 549. Read the following Circular from Captain E. C. S. WILLIAMS, R. E., Under Secretary to the Government of India, Public Works Department, to the Secretary to the Government of Madras, in the Public Works Department, dated Fort William, 29th August 1864, No. 614 :—

Governments of Madras, Bombay, Bengal, North Western Provinces, and Punjab.
Governor, Straits Settlements.
Chief Commissioners, Oudh, Central Provinces, and British Burmah.
Commissioner of Mysore.
Resident at Hyderabad.
Superintendent, Alguada Reef, Double and Cocos Island Light-houses.
Agents, Governor General, Central India and Rajpootana.

The following Note on the enhancement of rates throughout India, within the ten years ending with 1861, based upon the replies received to Circular No. 93 of 1861, is forwarded to the Local Governments and Administrations noted on the margin, for information.

Note by the Under Secretary to the Government of India, Public Works Department, on the replies to Circular No. 93 of 1861, calling for particulars of the enhancement of rates in the ten years ending with 1861.

On the 24th October 1861, the above Circular was issued, and on 25th February 1863, the enquiry was extended to Madras and Bombay.

The object of the enquiry was to obtain the means of checking revised estimates submitted in consequence of avowedly enhanced rates; as the Government of India was not satisfied that this reason was not sometimes pushed too far and made to answer for more than it ought.

We have in the replies a mass of data to refer to, but which is now even out of date, for the particular object in view.

The data afford, however, the means of estimating the absolute rise in rates, during the ten years embraced by the returns, in the various parts of the Empire, and of comparing the condition of these parts, so far as the price of labour is a criterion of it.

With this view, I have prepared the two tables attached to this Note.

It should first be explained that,—as was to be expected from the manner in which the call was made for rates of various kinds of work *without* any detailed specifications—*anomalies* have presented themselves in the rates for *work*, such as to render any general comparison of them next to useless—*e. g.*

A terraced roof or flooring differs with the locality. Again, in one case timber is included in a roofing rate, in another case omitted, and so on.

Pucka brick-work is, perhaps, more free from variations in its nature, than any other of the rates called for. I have therefore contented myself with taking it as a single example of the different kinds of *work*.

I had selected four others, with the view of deriving a mean rate from the five, which should have been more generally true, from the introduction of other materials than bricks and lime, such as timber, &c., but I found that for one Province one rate was wanting, for another, a second, and so on, so that I was compelled to take refuge in the one description of work selected.

But, in truth, the rates of labour are sufficient for the purpose, the addition of a work rate being useful as a check, though it also produces anomalies, which can only be accounted for by surmise.

The labour rates are, however, so incomplete, that it has not been possible to take more than those for—

Coolies,
Masons or bricklayers, and
Carpenters.

It would, of course, have been more satisfactory to have had a rate for unskilled labour derived from the rates for beldars, coolies, women, boys, &c., and for skilled labour derived from the rates of hire paid to artizans of all classes, but this has not been possible.

In Table I, will be found the rates for coolies, for bricklayers and carpenters (mean,) and for pucka brick-work for the two years limiting the period, viz., 1852 and 1861, with the percentages of increase during the period.

For Oudh, Hyderabad, and Burmah, the Returns do not go back to 1852. For Mysore, they commence with 1847. In the case in which its rate was lowest (pukka brick-work,) it cannot be compared with the other Provinces, for though there is no doubt that the *great rise* in rates has taken place since 1850, it is more than probable that the rates had previously to that year commenced to rise though the effect up to that year may have been but slight.

The minus signs in the percentage columns show, that in Oudh there has since 1853 been a general *reduction* of rates. The hire of a coolie in 1858 is returned the same as that of a bricklayer, hence the *apparent* large reduction in that rate.

In the Punjab it will be noticed that, in the rates for labour there has been but a very slight rise, 3 to 5 per cent. *Work* on the contrary exhibits a decrease of 12 per cent. There is an apparent inconsistency in this. We know, however, that in 1852, large works were being pushed on all over the Punjab, and though wages were slightly lower than now, there was probably some of the waste of labour inseparable from pushing on works at all cost. The rate for pukka brick-work, it will be observed, was in 1852, higher in the Punjab than in any part of the Peninsula of India, the city of Bombay excepted.

It is to the credit of both the Punjab and Oudh Administrations, that the rates should have been actually got down. British Burmah, it will be observed, has remained pretty stationary. It will be noticed that whilst its rates for labour are about 2½ times what is the average in the Bengal Presidency, its rate for pukka brick-work is not quite double the Bengal rate. The local authorities are wont to compare in the ratio of 3 or 4 to 1, when defending the high rates prevailing in Burmah.

It may be said, generally, that in and throughout India, the rates have gone up 3) per cent. during the 10 years under review. In the cities, Calcutta, Bombay, Kurrachee and Allahabad, the rates have gone up far beyond this.

In Calcutta the rates may be said to have doubled. In Allahabad whilst labour is 50 to 67 per cent. dearer, brick-work is 158 per cent. dearer. This is somewhat anomalous. So also in the Madras Presidency generally labour has gone up 17 to 31 per cent., but brick-work 52 per cent. In 1852, brick-work was cheaper in Madras and Allahabad than any where. It is still cheap in Madras compared with other Provinces; but the only solutions of the anomaly that offer themselves to my mind are, either the brick-work has been much improved, or the supervision over work is inferior to what it used to be.

It is a striking fact, that the cheapest coolie is still to be got in Allahabad. Calcutta also shows the anomaly above referred to. The work is, I believe, superior to what it was formerly, but the *work-rate* may be affected by the contracts, so extensively resorted to here.

The same anomaly presents itself in the Bombay Presidency rates, but in the opposite direction. There, while labour has gone up 42 to 48 per cent., brick-work has only gone up 29. Taking a coolie's hire as the standard, it may be deduced that the wage of an artizan was—

	1852.	1861.
In the Bengal Presidency equal to that of 2.24 coolies: 2.14 coolies.		
" Madras "	2.39	2.63
" Bombay "	2.81	2.71
Average...	2.51	2.55

These figures show that the artizan in Bengal is not so well remunerated as his fellow in the other Presidencies, and that he of Madras has become more appreciated than of yore. Generally, the relative value of skilled and unskilled labour has maintained an equilibrium, and an artizan may be said to get the wages of 2½ coolies.

Table II, exhibits the rates obtaining in the specified years in the various places, compared together, year by year. The lowest in *each* year having been taken as 100, the different years cannot be compared together in this Table.

TABLE I.
Table showing the rates obtaining for certain kinds of labour and of work, with percentages of variation, 1852-61.

note showing the rates obtaining for certain kinds of work, and percentages of variation, 1852-61.

LOCALITIES.	COOLIES PER DAY.		BRICKLAYERS AND CARPENTERS PER DAY.		PUCKA BRICKWORK PER 100 CUBIC FEET.		LITTLE WORTH.		REMARKS.
	Rates.		Rates.		Rates.		Earth-work.		
	Percent- age of increase, 1852-61.		Percent- age of increase, 1852-61.		Percent- age of increase, 1852-61.		Percent- age of increase, 1852-61.		
	1852.	1861.	1852.	1861.	1852.	1861.	Percentage of increase, 1852-61.	All works detailed in Circular. Percentage of increase, 1852-61.	
1 Bengal Presidency (omitting Oudh)	AS. 1.70	AS. 2.09	AS. 3.81	AS. 4.47	RS. 12.25	RS. 14.41	18	17	The last column is of little or no value. It is derived from all the data given for each Province, &c., which vary; sometimes the particulars of one rate, sometimes those of another, or of others, being wanting. It is plain, that unless precisely the same kinds of work be taken in each case, it is next to useless.
2 Madras "	2.08	2.44	4.98	6.54	9.16	13.93	52	50	
3 Bombay "	2.25	3.33	6.33	9.01	15.97	20.55	29	33	
Means "	2.01	2.62	5.04	6.67	12.46	16.30	31		
4 Bombay Presidency (omitting Bombay and Kurrachee)	2.00	2.58	5.33	7.03	12.21	15.73	29	26	The same may be said of the last but one column: earth-work, admitting of such a variety of conditions, depending on the depth excavated, distance carried, nature of soil, &c., &c.
5 Bengal Province "	1.71	2.44	2.75	4.21	10.80	15.61	44	46	
6 " (omitting Calcutta)	1.73	2.33	2.67	4.06	10.90	14.75	35	41	
7 North Western Provinces "	1.33	1.60	3.08	3.83	10.93	14.31	31	29	The minus signs indicate a decrease. The lowest rates and highest percentages in each column are underlined.
8 " Allahabad "	1.42	1.63	3.13	3.65	11.14	12.86	15	19	
9 Punjab "	1.25	2.31	4.83	5.08	16.69	14.74	12	9	
10 Oudh "	3.25	1.50	3.58	2.42	19.15	16.93	12	11	
11 Central Provinces "	1.50	2.00	4.58	4.75	10.59	12.19	22	31	The lowest rates and highest percentages in each column are underlined.
12 Hyderabad "	2.00	2.37	4.91	6.57	11.28	14.24	26	27	
13 Mysore "	1.75	2.27	5.58	6.99	8.75	14.32	64	57	
14 British Burmah ... (1855-56)	5.25	5.45	11.67	11.25	25.37	27.52	8	10	The lowest rates and highest percentages in each column are underlined.
15 Straits Settlements "	5.33	8.75	10.83	14.57	21.88	27.08	24	28	
16 Calcutta "	1.58	3.25	3.08	5.33	10.00	22.50	125	89	
17 Bombay "	2.50	4.00	6.50	11.00	23.50	35.00	49	48	The lowest rates and highest percentages in each column are underlined.
18 Kurrachee "	3.00	5.00	9.50	13.00	37	...	...	38	
19 Allahabad "	1.00	1.50	3.00	5.00	9.50	24.50	158	104	

TABLE II.
*Table showing relative percentages of rates for Coolies, Bricklayers and Carpenters, and Pukka Brick-work in 1852 and 1861.
The Locality with the lowest rate in each year for each kind = 100.*

LOCALITIES.	COOLIES.			BRICKLAYERS AND CARPENTERS.			PUKKA BRICK-WORK.			REMARKS.	
	Order.	1852.	1861.	Order.	1852.	1861.	Order.	1852.	1861.		
											Order.
Bengal Presidency (omitting Oudh)...	6	170	139	6	8	143	6	11	134	112	7
Madras "	12	208	163	10	12	187	11	1	100	108	3
Bombay "	13	225	222	15	15	237	15	12	174	160	13
" (omitting Bombay and Kurrachee) ...	10	200	172	13	13	200	14	10	133	122	11
Bengal Province "	7	171	163	11	2	103	5	5	118	121	10
" (omitting Calcutta)...	8	173	155	9	1	100	4	6	119	115	8
North Western Provinces ...	3	133	107	3	4	115	3	6	119	111	4
" (omitting Allahabad)	3	142	108	4	6	117	2	8	122	100	1
Punjab ...	13	225	154	8	10	181	9	13	182	115	8
Oudh ...	17	325	100	1	7	134	1	14	209	132	12
Central Provinces ...	4	150	133	5	9	172	7	4	116	101	2
Hyderabad ...	10	200	158	10	11	184	12	9	123	111	4
Mysore ...	8	175	151	7	14	209	13	*	96*	111	4
British Burmah ...	18	525	364	18	19	437	17	17	277	214	17
Straits Settlements ...	19	533	583	19	18	406	19	15	239	211	16
Calcutta ...	5	158	217	14	4	115	10	3	109	175	14
Bombay ...	15	250	267	16	16	243	16	16	257	273	18
Kurrachee ...	16	300	333	17	17	356	18	"	104	"	"
Allahabad ...	1	100	100	1	3	112	8	"	"	191	15

Oudh is omitted as the Returns are not given for any period previous to 1858.

Coolies are returned at the same rate as Masons in Oudh for 1853.

* This is the lowest, but in 1817: so Madras, the next lowest, is taken as the standard for comparison.

No. 550.

ORDER THEREON, 26th September 1864, No. 2,788.
Communicated to the Superintending Engineers.
(True Extract.)

(Signed) J. H. M. SHAW STEWART, Major, R. E.,
Deputy Secretary to Government.

To the Superintending Engineers.

Exd. T. O'Connor.

CIRCULAR No. 014 of 1864.

PUBLIC WORKS.

FROM

CAPTAIN E. C. S. WILLIAMS, R. E.,

UNDER SECY. TO THE GOVT. OF INDIA,

TO.

*The Secretary to the Govt of Madras -
in the Public Works Department.*

PUBLIC WORKS DEPARTMENT,

Fort William, 29th August, 1864.

Establishment.

Governments of Madras, Bombay, Bengal,
North Western Provinces, and Punjab.
Governor, Straits Settlements.
Chief Commissioners, Oudh, Central Pro-
vinces, and British Burmah.
Commissioner of Mysore.
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the ten years ending with 1861, based
upon the replies received to Circular
No. 93 of 1861, is forwarded to the
Local Governments and Administrations
noted on the margin, for information.*

E. C. S. Williams Captain, R. E.,
Under Secy. to the Govt. of India.

*Note by the Under Secretary to the Government of India, P. W. Dept., on
the replies to Circular No. 93 of 1861, calling for particulars of the
enhancement of rates in the ten years ending with 1861.*

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The object of the enquiry was to obtain the means of checking
revised estimates submitted in consequence of avowedly enhanced rates;
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The data afford, however, the means of estimating the absolute
rise in rates, during the ten years embraced by the returns, in the
various parts of the Empire, and of comparing the condition of these
parts, so far as the price of labour is a criterion of it.

With this view, I have prepared the two tables attached to this Note.

It should first be explained that,—as was to be expected from the manner in which the call was made for rates of various kinds of work *without* any detailed specifications—*anomalies* have presented themselves in the rates for *work*, such as to render any general comparison of them next to useless—*e. g.*

A terraced roof or flooring differs with the locality. Again, in one case timber is included in a roofing rate, in another case omitted, and so on.

Pucka brick-work is, perhaps, more free from variations in its nature, than any other of the rates called for. I have therefore contented myself with taking it as a single example of the different kinds of *work*.

I had selected four others, with the view of deriving a mean rate from the five, which should have been more generally true, from the introduction of other materials than bricks and lime, such as timber, &c., but I found that for one Province one rate was wanting, for another, a second, and so on, so that I was compelled to take refuge in the one description of work selected.

But, in truth, the rates of labour are sufficient for the purpose, the addition of a work rate being useful as a check, though it also produces anomalies, which can only be accounted for by surmise.

The labour rates are, however, so incomplete, that it has not been possible to take more than those for—

Coolies,
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It would, of course, have been more satisfactory to have had a rate for unskilled labour derived from the rates for beldars, coolies, women, boys, &c., and for skilled labour derived from the rates of hire paid to artisans of all classes, but this has not been possible.

In Table I, will be found the rates for coolies, for bricklayers and carpenters (mean,) and for pukka brick-work for the two years limiting the period, viz., 1852 and 1861, with the percentages of increase during the period.

For Oudh, Hyderabad, and Burmah, the Returns do not go back to 1852. For Mysore, they commence with 1847. In the case in which its rate was lowest, (pukka brick-work,) it cannot be compared with the other Provinces, for though there is no doubt that the *great rise* in rates has taken place since 1850, it is more than probable that the rates had

previously to that year commenced to rise though the effect up to that year may have been but slight.

The minus signs in the percentage columns show, that in Oudh there has since 1858 been a general *reduction* of rates. The hire of a coolie in 1858 is returned the same as that of a bricklayer, hence the *apparent* large reduction in that rate.

In the Punjab it will be noticed that, in the rates for labour there has been but a very slight rise, 3 to 5 per cent. *Work* on the contrary exhibits a decrease of 12 per cent. There is an apparent inconsistency in this. We know, however, that in 1852, large works were being pushed on all over the Punjab, and though wages were slightly lower than now, there was probably some of the waste of labour inseparable from pushing on works at all cost. The rate for pukka brick-work, it will be observed, was in 1852 higher in the Punjab than in any part of the Peninsula of India, the city of Bombay excepted.

It is to the credit of both the Punjab and Oudh Administrations, that the rates should have been actually got down. British Burmah, it will be observed, has remained pretty stationary. It will be noticed that whilst its rates for labour are about $2\frac{1}{2}$ times what is the average in the Bengal Presidency, its rate for pukka brick-work is not quite double the Bengal rate. The local authorities are wont to compare in the ratio of 3 or 4 to 1, when defending the high rates prevailing in Burmah.

It may be said, generally, that in and throughout India, the rates have gone up 30 per cent. during the 10 years under review. In the cities, Calcutta, Bombay, Kurrachee and Allahabad, the rates have gone up far beyond this.

In Calcutta the rates may be said to have doubled. In Allahabad whilst labour is 50 to 67 per cent. dearer, brick-work is 158 per cent. dearer. This is somewhat anomalous. So also in the Madras Presidency generally labour has gone up 17 to 31 per cent., but brick-work 52 per cent. In 1852 brick-work was cheaper in Madras and Allahabad than any where. It is still cheap in Madras compared with other Provinces; but the only solutions of the anomaly that offer themselves to my mind are, either the brick-work has been much improved, or the supervision over work is inferior to what it used to be.

It is a striking fact, that the cheapest coolie is still to be got in Allahabad.

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The same anomaly presents itself in the Bombay Presidency rates, but in the opposite direction.

There, while labour has gone up 42 to 48 per cent., brick-work has only gone up 29.

Taking a coolie's hire as the standard, it may be deduced that the wage of an artizan was—

	1852.	1861.
In the Bengal Presidency equal to that of 2.24 coolies : 2.14 coolies.		
„ Madras „ „	2.39	2.68
„ Bombay „ „	2.81	2.71
Average . . .	2.51	2.55

These figures show that the artizan in Bengal is not so well remunerated as his fellow in the other Presidencies, and that he of Madras has become more appreciated than of yore.

Generally, the relative value of skilled and unskilled labour has maintained an equilibrium, and an artizan may be said to get the wages of $2\frac{1}{2}$ coolies.

Table II, exhibits the rates obtaining in the specified years in the various places, compared together, year by year. The lowest in *each* year having been taken as 100, the different years cannot be compared together in this Table.

TABLE I.

Table showing the rates obtaining for certain kinds of labour and of work, with percentages of variation, 1852-61.

LOCALITIES.	COOLIES PER DAY.			BRICKLAYERS AND CARPENTERS PER DAY.			PUCKA BRICK-WORK PER 100 CUBIC FEET.			LITTLE WORTH.		REMARKS.
	Rates.		Percentage of increase, 1852-61.	Rates.		Percentage of increase, 1852-61.	Rates.		Percentage of increase, 1852-61.	Earth-work.	All works detailed in Circular.	
	1852.	1861.		1852.	1861.		1852.	1861.				
	As.	Rs.	As.	Rs.	As.	Rs.	As.	Rs.				
1 Bengal Presidency (omitting Oudh) ...	170	209	23	381	447	17	1225	1441	18	17	The last column is of little or no value. It is derived from all the data given for each Province, &c., which vary; sometimes the particulars of one rate, sometimes those of another, or of others, being wanting. It is plain that unless precisely the same kind of work be taken in each case, it is next to useless. The same may be said of the last but one column: earth-work, admitting of such a variety of conditions, depending on the depth excavated, distance carried, nature of soil, &c., &c. The minus signs indicate a decrease. The lowest rates and highest percentages in each column are underlined.	
2 Madras " " "	208	214	17	498	654	31	916	1393	50	60		
3 Bombay " " "	225	333	48	633	901	42	1597	2055	41	33		
Means	201	262	30	504	667	32	1248	1630	31	26		
4 Bombay Presidency (omitting Bombay and Kurrachee) ...	200	258	29	533	703	32	1221	1573	37	46		
5 Bengal Province " " "	171	244	43	275	421	53	1080	1561	89	41		
6 " " (omitting Calcutta) ...	173	233	35	267	406	52	1090	1475	64	29		
7 North Western Provinces " " "	133	160	20	308	383	24	1093	1431	34	19		
8 " " " (omitting Allahabad) ...	142	163	15	313	365	17	1114	1286	6	34		
9 Punjab " " "	125	231	8	483	508	5	1669	1474	35	9		
10 Oudh " " " (1856)	325	150	—54	358	242	—32	1915	1093	—11	—11		
11 Central Provinces " " "	150	200	33	458	475	4	1219	22	63	31		
12 Hyderabad " " " (1856)	200	237	19	491	657	34	1424	26	63	27		
13 Mysore " " " (1847)	175	227	30	553	690	24	875	1432	45	57		
14 British Burmah " " "	525	515	4	1167	1125	—4	2337	2752	8	10		
15 Straits Settlements " " "	533	875	61	1083	1457	35	2188	2708	24	28		
16 Calcutta " " "	158	325	106	308	533	73	1000	2250	125	89		
17 Bombay " " "	250	400	60	650	1100	69	2350	3500	49	48		
18 Kurrachee " " "	300	500	67	950	1300	37	...	...	50	38		
19 Allahabad " " "	100	150	50	300	500	67	950	2450	158	200		

TABLE II.
Table showing relative percentages of rates for Coolies, Bricklayers and Carpenters, and Pukka Brick-work in 1852 and 1861.
The Locality with the lowest rate in each year for each kind = 100.

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210.2788
Communicated to
the Engrs Engineers
J.H.
Chepauk
26th Sept 64
To the Engrs Engineers
X⁸⁸.
27th September

1891

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the effect of
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