Archives I—10,006—16-8 77.

(1) Number of pages 56

(2) Date of repair 3/87

(3) Initials of the Referencer lows

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W.D DEPARTMENT

G.O. No. / B.P. No.	3026 —w	Press. / Mis.
Dated	5-12-1881	19~~7~~.

Not to be folded or roughly handled

A. Mani

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

5th December 1881, No. 3026 W.

Buildings and Roads.
Civil Works.

Read the following papers:—

No. 13. From K. F. NORDMANN, Esq., Executive Engineer on special duty, to the Secretary to Government, Public Works Department, dated Rayagadda, 16th November 1881, No. 14-R.

In continuation of my letter No. 12-P of the 12th instant, I have the honor to report that the reconnoitring party left Párvatipur on the 12th and arrived at Rayagadda,* a distance of 30 miles and 6 furlongs, on the 14th instant, having satisfactorily attended to all necessary measurements, observations, the taking of notes, &c.

* Distance of Rayagadda from Vizagapatam, 116 miles and 6 furlongs.

2. The weather which had been fine up to the 12th assumed a monsoonish appearance on the night of that date. It was cloudy on the 13th and 14th with slight drizzling rain; yesterday, the 15th, the clouds gathered in a threatening manner; there was a heavy shower in the afternoon and steady and continuous rain last night.

3. The track, which is passable for carts in the dry weather, from Párvatipur to this, crosses the Narrainpatnam river in the seventh mile, and then enters the valley of the Nagavully (or Chicacole) river in which it runs up to Rayagadda, keeping always within half a mile or so of the river bank. On both sides of the track are low ridges of hills. The valley is from one to three miles wide. The track is almost level, the longitudinal slope of the valley being very gradual.

4. The cross section is mostly flat; in some places the ground is undulating and cut up by ravines and large gullies caused by erosion, but generally it is level or nearly so. There is very little rock and there are no difficulties in the way of a road or railway.

5. The soil, as a rule, is very fertile, though frequently of a light description. There is a good deal of jungle along the track, but less jungle than cultivation. The latter consists chiefly of dry crops, and there is also some paddy and sugarcane.

6. Villages are about a mile apart, and, on the whole, the country is sparsely populated; there is room for a greater population.

7. The hill ridges limiting the valley of the river are well wooded with trees and shrubs, and patches of cultivation are to be seen on the hill sides. The ippa tree grows here, besides tamarind, mango, jack, mathi, black wood, yegi, cashewnut, acacias, &c.

8. The dry crops consist of six different oil seeds (as per margin), three fibrous plants (ganja or Indian hemp and two kinds of flax), cholum, maize or Indian corn, horse gram, green gram, ragi, cumbu, and three or four other kinds of food grains (gunlalu, sámalu, údalu, and korralu).

Gingelly.
Two kinds of lamp oil.
Castor oil.
Oil from mustard seed.
Oil from the ippa tree seeds.

9. Of vegetables, the people cultivate yam, pumpkin, cucumber, water-melon, plantain, brinjal, chúkai, bendakhai (hybis-cus) &c.; tobacco is also largely grown.

10. Of minerals, there are kunkur lime stone and iron ore. The ore is smelted at Jammadapettah, 10 miles south of Rayagadda. Along the whole route there is kunkur lime stone to be found and suitable clay for brick-making. Building stone will have to be quarried in the parallel hill ridges confining the valley of the river. The prevailing rock is gneiss, frequently studded with patches of quartz and sometimes with red garnets.

11. The traffic I met is chiefly carried on bullocks. I saw paddy and hides coming from Rayagadda, Bengal gram from Kalahundi, rice from Sambalpur, all going to Párvatipur.

12. The Ooriya people and language begin about 8 miles north of Párvatipur. There are some Khond villages.

13. The drainage encountered between Párvatipur and Rayagadda is of an ordinary description; the large streams to be bridged are the Narrainpatnam river in the seventh mile, 350 feet wide and 14 feet deep in flood; a stream in the sixteenth mile, 150 feet wide and 5 feet deep; and the river near Rayagadda, 425 feet wide with a maximum depth of 22 feet. The streams, as a rule, have sandy or gravelly beds; no rock for foundations, except in one or two cases, being visible near the crossings. There is a good, rocky bridge site for the Rayagadda river.

14. I am preparing a continuous section of the country as I march along, which will be accompanied by a narrative descriptive of all prominent features and of the particular heads alluded to in paragraph 12 of G.O., No. 2294 W., dated 16th September last, as well as by sections of large streams.

15. The height of Párvatipur above sea level is 378 feet, that of Rayagadda I have not yet been able to calculate accurately, as the last aneroid readings from Vizagapatam have not yet reached this.* The aneroid here reads on an average 29·35, showing Rayagadda to be about 600 feet above sea level.

* Just received, altitude 592 feet.

16. I have not got the maps (scale one mile to the inch) of the country between Párvatipur and Rayagadda.

17. The health in camp has so far been good, except that the Hospital Assistant and the Writer have had a slight attack of fever.

18. The Revenue subordinate (paragraph 15 of the above-quoted Government Order) has not yet joined my camp; it having been found difficult to engage a suitable man willing to go and able to speak English, Telugu, Ooriya, and Hindustani, I have this day written to the Agent to the Governor at Vizagapatam, and requested him to endeavour to supply a man with all or most of the qualifications named.

19. I leave this to-morrow for Bissemkuttak, Ombadola, Assurgor and Bogor, while Mr. Cormac marches *via* Singapur to Bondisor and thence to Dadpur and Bogor. We propose to meet first at Lonjigur to complete the section of the line from Singapur to Ombadola, and then at Bogor, where I expect to be about the 1st proximo.

20. I shall thank you to inform me whether it is desired that I should march from Jalbal (seven miles south-east of Nára) northwards to *Onki*, about 20 miles and back. If I do not hear from you about this in time, I shall make this march.

21. I request that two fresh perambulators may be sent for me to Raipur to await my arrival there, as my perambulators show signs of weakness and may be out of order and unserviceable by the time I arrive at Raipur.

22. I beg that letters may, till further notice, be addressed to "Rayagadda, care of Sub-Magistrate, to be forwarded."

No. 13-A. From the Secretary to the Chief Commissioner, Public Works Department, Central Provinces, to the Secretary to the Government of Madras, Public Works Department, dated Nagpur, 16th November 1881, No. 9059.

I AM desired by the Chief Commissioner to forward, for the consideration of the Madras Government, the accompanying copy of letter No. 6812, dated 10th instant,

from Commissioner, Chattisgarh Division (with enclosures), with reference to the reconnoissance, ordered by the Government of India, of the country between Vizagapatam and Raipur for a line of railway.

From Captain C. B. LUCIE SMITH, Commissioner, Chattisgarh Division, to the Secretary to the Chief Commissioner, Public Works Department, Central Provinces, dated 10th November 1881, No. 6812.

I HAVE the honor to acknowledge the receipt of your letter No. 7084, dated 1st September last, with its enclosures, and to say, after careful inquiry, that the project of taking the Vizagapatam and Raipur Railway west of the Mahánadi is doubtless feasible, but appears hardly advisable, because such a line must necessarily pass through a stretch of difficult country in the feudatory State of Kanker, which would entail a cost of construction that would probably more than counterbalance the gain obtained by avoiding the Mahánadi, while the line would lie altogether apart from the existing trade route.

2. The natural line I should judge to be that followed at present by the Banjara traffic from Vizagapatam, which passes through Parbathipooram, Koontipenta, and Singapur, and crosses the Kalahundi border, 24 miles, as the crow flies, S.S.E. of Bhowani Patna (called "Bondisor" on the maps). In this distance of 24 miles the only obstacle is the Musa ghât, which is, as the crow flies, about 12 miles S.S.E. of Bhowani Patna. From Bhowani Patna the road runs to the western border of Kalahundi and then in a generally N.N.W. direction to a point about two miles east of Aring, where it strikes the Raipur and Sambalpur road.

3. With ordinary surface repairs the whole road from Bhowani Patna to Raipur is easy for wheeled traffic during the open season, and it lies through fertile and for the most part well-cultivated country, as will be seen from the accompanying extract from notes recorded by me when marching along this route with carts in February and March last. I have estimated its present length at 179 miles, but probably by straightening the line in places the distance may be reduced to about 165 miles, and of this distance only some 35 miles are in feudatory territory.

4. Looking at the proposed railway from the Central Provinces point of view, there can, I think, be no question, but that the line most calculated to open out this division is the one I have sketched, and I should judge that the Vizagapatam authorities are in its favor. I have therefore written to Mr. Nordmann at Bhowani Patna recommending it to his attention.

STATEMENT of Stages from Bhowani Patna to Raipur.

No.	Stage.	Remarks.
1	Bondisor or Bhowani Patna to Nandol.	Came out here *en route* through Khariar to Raipur; distance about 12 miles, road fair for the wheeled traffic of the country; soil sandy running into brown and black; rice, tilli, peas, pulses, wheat and chenna grown; country fairly cleared, and the following villages passed through:—Singjerram, Poogjar, Barjola, Teljori, Kharra, Tekri and Atangura. Met many small country carts taking rice to today's bazaar at Bhowani Patna. Nandol has a *fair* encamping ground on the bank of the Sojora river, which has clear water.
2	Nandol to Daspar...	Distance about 10 miles; road good, in many places raised and generally aligned and planted with roadside trees; country generally well cleared and cultivated with rice, pulses, some chenna and sugarcane; high and picturesque hills clothed with forest and bamboos until the Tel river is reached, where the hills open out; soil sandy running into black and brown; passed through or near Kendooputti, Amotola, Makartola, Bandagaon, Poondah, Faranggaon, Amta, and Daspar; good shade at Daspar, but the grove is close to sugarcane fields and a bunded nullah, passed several nice groves on road.

Statement of Stages from Bhowani Patna to Raipur—*cont.*

No.	Stage.	Remarks.
3	Daspar to Golamunda.	Distance about 9 miles; came through Doombar, Babal, Balco Chua, Kallia Pani to Golamunda; soil black the first-half, and sandy the second-half; a fair amount of cultivation, chiefly rice and castor; a few teak trees appear near Golamunda; a mango tope here with fair shade, but not a nice encamping ground. There is a Kalahundi Police post here.
4	Golamunda to Nandgaon.	Distance about 9 miles; past the Khariar frontier near Dungia Mura, for three-fourths of the way black soil and afterwards sandy; country fairly cleared, road rough on the Khariar side; came through Tumra, Dungia, Mura and Chulna to Nandgaon, which is a good encamping ground having pleasant shade and clear water from the river near.
5	Nandgaon to Larka.	Distance about 9 miles; road easy, although not always properly marked out; country well cleared and fairly cultivated; soil sandy and black; villages poor-looking and very dirty; teak about; passed through Bargaon, Gondapali, Gamagora, Konpur and Ankapur to Larka; rice, chenna, tilli and castor chiefly grown; good shade at Larka, but too close to village, and tank water fair.
6	Nandgaon to Palsudar.	Distance about 9 miles; soil chiefly black; small jungle and high grass with few clearings; passed through Kirmal and Langi to Palsudar; fair shade and fair water, but a good deal shut in.
7	Palsudar to Kolinga.	Distance about 6 miles; soil sandy and black; not much cleared country; small jungle; road fair, but narrow; passed through Doomjar. Kolinga has a large clearing and a good place for encamping with abundant shade, water from the river near.
8	Kolinga to Rajona.	Distance about 6 miles; road good; soil sandy; crossed the Oondar river twice; passed some clearings belonging to Chichali and Dhargaon, otherwise the whole distance was through forest chiefly of large trees of all descriptions except teak and sal-rajona; has a fair extent of cleared land, with fair shade, and clear water from the Oondar river.
9	Rajona to Kisua ...	Distance about 9 miles; soil black and sandy; country fairly cleared, but not much cultivation; small open jungle; passed through or near Belgaon, Agrui, Bila, Bandanpali to Kisua; villages all small, but many have good mango groves; good shade at Kisua, but encamping place too low.
10	Kisua to Tarbor ...	Distance about 9 miles; road good; small jungle the whole way; soil at first black, afterwards sandy; open clearing at Tarbor, and clear water but no shade.
11	Tarbor to Tarnot ...	Distance about 12 miles; road good for the first-half and then rocky and stony and over broken ground by the hills; soil of the first-half chiefly black; only one village Limde passed through; country has once been fairly cleared, but now has retrograded.
12	Tarnot to Sarabaug.	Distance about 7 miles; soil chiefly sandy; road good; country cleared, but not much cultivation. There are several tanks here and some sugarcane cultivation; villages passed through this morning were Jilmilla, Rassipali, and Mobatta.
13	Sarabaug to Tendubatta.	Distance about 6½ miles; road fair; no running water in the Jok river; passed through Palalkut gori; the whole distance from this village to Tendubatta under forest, but not unpleasantly dense; soil sandy chiefly; no teak and only sal here and there. Tendubatta has a fairly good clearing and fair water, no shade. Tendubatta is an high tableland probably 1,400 or 1,500 feet above the sea. There is a good clear water from a kutcha well here.
14	Tendubatta to Bondrabunda.	Distance about 11 miles; road good; soil hard, red loam, no stones and only slightly rocky in one or two places, descents and ascents easy, nullahs not troublesome, in fact as good a country road as one would wish, and this is the road the Khariar Amlah induced Mr. Fisher not to travel over in 1873 and which they tried to induce me not to take. It should be widened and improved and

Statement of Stages from Bhowani Patna to Raipur—*cont.*

No.	Stage.	Remarks.
		will make a capital cart road at all seasons; passed Ligirdi, a small hamlet of Khariar, and a little way beyond entered the Khalsa of Raipur and passed through Chorbatti and Kokuajar to this. There is some shade here and clear water from a kutcha well; all country over forest, but neither teak, sal nor bamboos to be seen.
15	Bondrabanda to Karti.	Distance about 11 miles; soil sandy; country well cleared; road fair, but heavy in some places from sand; rice and some sugarcane grown. Karti has a good encamping ground and has a Police station-house.
16	Karti to Mahasamund.	Distance about 9 miles; soil at first black, afterwards sandy and then gravelly; country fairly cleared with mowah trees about; road fair and apparently much travelled by carts. Mahasamund is a large village on a gravelly rise, with fair shade at a pleasant distance from the village; rice, sugarcane, ulsi, and chenna grown.
17	Mahasamund to Paragaon (2 miles east of Aring).	Distance about 8¼ miles; country cleared throughout; soil brown and yellow and laterite; crossed the Mahánadi by the Ghoorari ghát. The river here is much narrower than by the Aring crossing. Executive Engineer is making a branch road to this crossing from the Raipur and Sambulpur road.
18	Paragaon to Nowagaon.	At Paragaon the Raipur and Sambulpur road is struck and the whole distance from Paragaon to Raipur is by that road. About 2 miles from Paragaon, Aring which has a considerable trade with Kalahundi is reached, and from Aring to Nowagaon the distance is about 12 miles; country cultivated throughout.
19	Nowagaon to Raipur.	Distance about 12 miles; country cultivated throughout.

NOTE.—The total distance from Bhowani Patna to Raipur by this route is about 179 miles, but I should judge that by straightening the line in places the total distance may be reduced to about 165 miles.

(Signed) C. B. LUCIE SMITH,
Commissioner, Chattisgarh Division.

No. 14. ORDER THEREON, 5th December 1881, No. 3025 W.

THE papers above read, on the subject of the reconnoissance for the Vizagapatam and Raipur Railway, will be placed on record. The latter containing a letter and diary of Captain C. B. Lucie Smith, Commissioner, Chattisgarh Division, is especially valuable as it affords much information regarding the country which has been obtained from personal observation.

2. The following telegram was despatched for Mr. Nordmann's guidance on the 1st December:—

"Inform Nordmann urgently reconnoissance Onki line not absolutely necessary, but that from Jalbal *viâ* Nára to Arang obligatory. Cormac to reconnoitre simultaneously route from Bondisor *viâ* Daspar, Nandol, Larka, Palsudar, Rajona, Tarbor, Tarnot, Sarabaug, Tendubatta, Karki to Aring. Expect orders and new perambulators at Raipur."

3. Paragraphs 21 and 22 of Mr. Nordmann's letter will be attended to by the Chief Engineer, Public Works Department.

4. A copy of these Proceedings will be forwarded to the Chief Commissioner, Central Provinces, for information.

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

To K. F. Nordmann, Esq.
To the Consulting Engineer for Railways.

No. 15. (DOCKET No. 3026 W., dated 5th December 1881.)

COPY of the above forwarded to the Chief Commissioner, Central Provinces.

Lieut.-Col., R.E.,
Ag. Under Secy. to Govt., P.W.D.

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1881} Madras.

PUBLIC WORKS.

To

THE CHIEF COMMISSIONER,
CENTRAL PROVINCES.

Dated December 6th.

Read

Noted

Entered

Rec'd December 1881, No. 5439 P.

DECEMBER.

No. 13–15.

Forwarding Proceedings regarding with remarks letter from Mr. Nordmann, Executive Engineer on special duty, and from the Secretary to the Chief Commissioner, Central Provinces, on the subject of the reconnaissance for the Vizagapatam and Raipur Railway.

No 14
R

Camp. Rayagadda.
16th November 1881.

From

K. F. Nordmann, Esq.
Executive Engineer
On Special duty.

To

Colonel R. H. Sankey, C.B., R.E.
Chief Engineer and Secretary to Government
Public Works Department
Madras.

Sir,

In continuation of my letter No 12 of the 12th inst I have the honor to report that the Reconnoitering Party left Parvatipur on the 12th and arrived at Rayagadda* — a distance of 30 miles and 6 furlongs — on the 14th instant, having satisfactorily attended to all necessary measurements, observations, the taking of notes &c.

2. The weather which had been fine up to the 12th assumed a menacing appearance on the night of that date. It was cloudy on the 13th and 14th with slight drizzling rain

* Note. Rayagadda is distant from Vizagapatam 116 miles & 6 furlongs.

rain yesterday the 15th the clouds gathered in a threatening manner: there was a heavy shower in the afternoon and steady and continuous rain last night.

3. The track, which is passable for carts in the dry weather, from Kar. -valipore to this, crosses the Karrain -patnam river in the 7th mile and then enters the valley of the Rayavelly (or Chicacole) river in which it runs up to Rayapeddu: keeping always within half a mile or so of the river banks. On both sides of the track are low ridges of hills. The valley is from one to three miles wide. The track is almost level, the longitudinal slope of the valley being very gradual.

4. The cross section is mostly flat: in some places the ground is undulating, and cut up by ravines and large gullies caused by erosion: but generally it is level or nearly so. There is very little rock and there are no difficulties in the way of a road or railway

5. The soil as a rule is very fertile. Rough frequently of a light description. There is a good deal of jungle along the track: but less jungle than cultivation. The latter consists chiefly of dry crops, and there is also some paddy and sugar cane.

6. Villages are about a mile apart and on the whole the country is sparsely populated: there is room for a greater population.

7. The hill ridges limiting the valley of the river are well wooded with trees and shrubs; and patches of cultivation are to be seen on the hill sides. The Ippa tree grows here, besides Tamarind, Mango, Jack, Mathi, Black wood, Vepi, Casias and Acacias, &c.

8. The dry crops consist of six different oil seeds (as per margin), three fibrous plants (Bonja or Indian hemp, and two kinds of flax), Cholum, Maize or Indian corn, horse gram, green gram, Ragi, Kambu and three or four other kinds of food grains (Gantalu, Samalu, Velaku, Korralu

* Gingelly.
Two kinds of lamp oil.
Castor oil.
Oil from muscatel seed.
Oil from the Ippa tree seeds

Korraku.)

9. Of vegetables the people cultivate Cane, pumpkin, cucumber, water melon, plantain, bringal, thin kai, bendai kai (hyptis suaveolens) &c. Tobacco is also largely grown

10. Of Minerals there are kunkur lime stone, and iron ore. The ore is smelted at Sammadapettah ten miles south of Rayagedda. Along the whole route there is kunkur lime stone to be found, and suitable clays for brickmaking. Building stone will have to be quarried in the parallel hill ridges, confining valley of the river. The prevailing rock is gneiss, frequently studded with patches of quartz and sometimes with red garnets.

11. The traffic I met is chiefly carried on bullocks: I saw pack and riders coming from Rayagedda, Bengal grain from Kalahandy, Rice from Sumbulpore, all going to Parvatipore.

12. The Doruja people and language begin about 8 miles south of

93

of Parvatipore. There are some Khond Villages.

13. The drainage encountered between Parvatipore and Rayagedda is of an ordinary description: the large streams to be bridged are the Narrainpatnam river in the 7th mile, 250 feet wide, and 14 feet deep in flood; a stream in the 16th mile, 150 feet wide and 5 feet deep; and the river near Rayagedda 425 feet wide with a maximum depth of 22 feet. The streams as a rule have sandy or gravelly beds: no rock for foundations except in one or two cases being visible near the crossings. There is a good rocky bridge site on the Rayagedda river.

14. I am preparing a continuous section of the country, as I march along, which will be accompanied by a narrative descriptive of all prominent features and of the particular heads alluded to in para 12 of G.O. No 2294 W. dated 16th September last, as fully as by sections of large streams

streams.

15. The height of Paravatipur above sea level is 378 feet: that of Rayagedda I have not yet been able to calculate accurately as the last aneroid readings from Vizagapatam have not yet reached me.* The aneroid here reads on an average 29.35, showing Rayagedda to be about 600 feet above sea level.

16. I have not got the maps (Scale one mile to the inch) of the country between Paravatipur and Rayagedda.

17. The health in camp has so far been good, except that the Hospital Assistant and the writer have had a slight attack of fever.

18. The Revenue Subordinate (para 15 of the above quoted G. O.) has not yet joined my camp: it having been found difficult to engage a suitable man willing to go and able to speak English, Telegu, Oorya and Hindustani. I have this day written to the Agent to

* Just received — altitude 592 ft

WL

to the Governor at Vizagapatam and requested him to endeavour to supply a man with all or most of the qualifications named. 22

19. I leave this tomorrow for Bijepuntattak, Ombadola, Asurgor and Bagar; while Mr. Cormac marches via Singapur to Bondeor and thence to Dadpur and Bagar. He proposes to meet first at Tongiguda to complete the section of the line from Singapur to Ombadola and thence at Bagar. where I expect to be about the 1st proximo.

20. I shall thank you to inform me whether it is desired that I should march from Salbai (7 miles S.E. of Rona) Northwards to Pakri, about 20 miles and back. If I do not hear from you about this in time, I shall make this march.

21. I request that two pack pony ambulances may be sent for me to Raipur, to await my arrival there

there ; as my perambulators shew
signs of weakness and may be out
of order and unserviceable by the
time I arrive at Raipur.

22. I beg that letters may, till
further notice, be addressed to
"Rajnandgaon, care of Sub Magistrate,
to be forwarded".

I have the honor to be, Sir,
Your most obedient servant
J. P. Woodhouse
Executive Engineer
Dr Special Dist.

Camp. Rayagadda
16th November, 1881.

From No. 14/R

K. F. Nordmann, Esq.
Executive Engineer
On Special duty

To
Colonel R. H. Sankey, C.B.R.E.
Chief Engineer and
Secretary to Government P.W.D.

Reports progress of
Reconnoitering party as
far as Rayagadda.

C.E. No. 2754 of 19-11-81.

Rec'd. 1-12-81 R. H. S.

P.W. 6 E 920

Rec'd. 25 Nov

PUBLIC WORKS DEPARTMENT.

P6

No. 9059

Nagpur, 16th November 1881.

3021

FROM

THE SECRETARY TO CHIEF COMMISSIONER,
PUBLIC WORKS DEPARTMENT,
Central Provinces.

To

THE SECRETARY TO GOVERNMENT OF Madras.
PUBLIC WORKS DEPARTMENT.

SIR,

I am desired by the Chief Commissioner to forward for the consideration of the Madras Government, the accompanying copy of letter No. 6812 dated 10th instant, from Commissioner, Chhattisgarh Division, (with enclosures) with reference to the reconnoissance ordered by the Government of India, of the country between Vizagapatam and Raipur for a line of Railway.

I have the honor to be,
Sir,
Your most obedient servant
Monnegue Coll. R.E.
Secretary to Chief Commissioner
Impl. P. W. Department.

P. W. L. No 6049

£-1

Read 22nd Nov

Copy forwarded to Govt. Bombay for information. 25-11-51.

897

Copy of a letter No 6012 dated 10th November 51 from the Commissioner, Chhattisgarh Division, to the Secretary to Chief Commissioner, P. W. Department, C.P.

3427/11

I have the honor to acknowledge the receipt of your letter No 7084, dated 1st September last, with its enclosures, and to say after careful enquiry that the project of taking the Vizagapatam and Raipur Railway west of the Mahannadi is doubtless feasible, but appears hardly advisable, because such a line must necessarily pass through a stretch of difficult country in the feudatory state of Kanker, which would entail a cost of construction that would probably more than counterbalance the gain obtained by avoiding the Mahannadi, while the line would lie altogether apart from the existing trade route.

2. The natural line I should judge to be that followed at present by the Banjara traffic from Vizagapatam, which passes through, Parbatipooram, Koontipenta, and Singapur, and, crosses the Kalahandi border 24 miles, as the crow flies, S.S.E of Bhowani Patna (called "Bondisor" on the maps). In this distance of 24 miles the only obstacle is the Mussa ghat which is as the crow flies about 12 miles S.S.E of Bhowani Patna. From Bhowani Patna the road runs to the western border of Kalahandi

and

and then in a generally N.N.W. direction to a point about 2 miles east of Aring where it strikes the Raipur and Sambalpur road.

3. With ordinary surface repairs the whole road from Bhowani Patna to Raipur is easy for wheeled traffic during the open season, and it lies through fertile and for the most part well cultivated country, as will be seen from the accompanying extract from notes recorded by me when marching along this route with carts in February and March last. I have estimated its present length at 179 miles, but probably by straightening the line in places the distance may be reduced to 165 miles, and of this distance only some 35 miles are in feudatory territory.

4. Looking at the proposed Railway from the Central Provinces point of view, there can I think be no question but that the line most calculated to open out this Division is the one I have sketched, and I should judge that the Vizagapatam authorities are in its favor. I have therefore written to Mr. Nordmann at Bhowani Patna recommending it to his attention.

Statement of Stages from Bhowani Patna to Raipur.

Stage	Remarks.
Bhowani Patna to Nandol.	Came out here enroute through Khariar to Raipur. Distance about 12 miles. road fair for the wheeled traffic of the country. Soil sandy running into brown and black. Rice, Tilli, Peas, Pulses, wheat and Chenna grown. Country fairly cleared and the following villages passed through :- Singjeram, Poojar, Banjola, Veljor, Kharra Tekri and Atangura. Met many small country carts taking rice to todays Bazaar at Bhowani Patna. Nandol has a fair encamping ground on the bank of the Sajora river which has clear water.
2 Nandol to Daspur.	Distance about 10 miles, road good, in many places raised and generally aligned and planted with road side trees. Country generally well cleared and cultivated with rice, pulses, some chenna and sugar cane. High and picturesque hills clothed with forest and bamboos until the Tel river is reached where the hills open out. Soil sandy running into black and brown. Passed through or near Kendopali Amotola, Nakartola, Bandagaon, Poondah, Paraug gaon, Amta, and Daspar. Good shade at Daspar but the grove is close to sugar cane fields and a bunded nullah. Passed several nice groves on road.

No.	Stage	Remarks.
3.	Daspar to Golamunda.	Distance about 9 miles: Came through Doombar Babal, Balso Chua, Kallia Pass, to Golamunda. Soil black the first half and sandy the second half. A fair amount of cultivation chiefly rice and castor. A few teak trees appear near Golamoondah. A mango tope here with fair shade but not a nice encamping ground. There is a Kalahandi Police post here.
4.	Golamunda to Nandgaon.	Distance about 9 miles. Past the Kharias frontier near Dungia Mura. For $\frac{3}{4}$ths of the way black soil and afterwards sandy: Country fairly cleared Road rough on the Kharias side. Came through Sumra, Dungia, Mura and Chulna to Nandgaon which is a good encamping ground having pleasant shade and clear water from the river near.
5	Nandgaon to Larka	Distance about 9 miles, road easy, although not always properly marked out, country well cleared and fairly cultivated. Soil, sandy and black. Villages poor looking and very dirty. Teak about. Passed through Bargaon, Gondapali, Gamagora, Konpur, and Ankapur to Larka. Rice, Chenua, Gilli, castor, chiefly grown, good shade at Larka but too close to village, and tank water fair.
6	Nandgaon to Palandar.	Distance about 9 miles. Soil chiefly black: small jungle and high grass with few clearings. Passed through Kirmal and Langi to Palandar. Fair shade and fair water, but a good deal shut in.

No.	Stage	Remarks.
7	Palandar to Kolinga	Distance about 6 miles - soil sandy and black, not much cleared country - small jungle - Road fair but narrow. Passed through Doonjar - Kolinga has a large clearing and a good place for encamping with abundant shade. Water from the river near.
9	Kolinga to Rajona	Distance about 6 miles. Road good, soil sandy, crossed the Condar river twice. Passed some clearings belonging to Chichali and Dhaigaon. Otherwise the whole distance was through forest chiefly of large trees of all descriptions except teak and Sal. Rajona has a fair extent of cleared land with fair shade and clear water from the Condar River.
9	Rajona to Kisna	Distance about 9 miles. Soil black and sandy. Country fairly cleared, but not much cultivated. Small open jungle. Passed through or near Belpara agria, Bila, Bandaupali, to Kisna. Villages small, but many have good mango groves. Good shade at Kisna, but encamping place too low.
10	Kisna to Yarbor	Distance about 9 miles. Road good. small jungle the whole way. Soil at first black, afterwards Sandy. Open clearing at Yarbor and clear water but no shade.
11	Yarbor to Yarnot	Distance about 12 miles, road good for the first half and then rocky and stony and over broken ground by the hills. Soil of the first half

No	Stage	Remarks
		half chiefly black, only one village Linde passed through. Country has once been fairly cleared but now has retrograded.
12	Yarnot to Sarabang	Distance about 7 miles. Soil chiefly sandy road good, country cleared, but not much cultivation. There are several tanks here and some sugar cane cultivation. Villages passed through this morning were Jelmilla, Rasaipati, & Mobatta.
13	Sarabang to Yundurbatta.	Distance about 6½ miles road fair, no running water in the Jok river. Passed through Palalkut ghat, the whole distance from this village to Yendurbatta under forest, but not unpleasantly dense, soil sandy chiefly, no teak and only sal here and there. Yendubatta has a fairly good clearing and fair water. no shade. Yendubatta is an high table land probably 1400 or 1500 feet above the sea. There is a good clear water from a kutcha well here.
14	Yendubatta to Bondrobunda	Distance about 11 miles, road good, soil hard red loam, no stones and only slightly rocky in one or two places, descents and ascents easy. Nullahs not troublesome - in fact as good a country road as one would wish. And this is the road the Kharias Aulak induced Mc Fisher not to travel over in 1873 and which they tried to induce me not to take. It should be

No	Stage	Remarks
		be widened and improved and will make a capital cart road at all seasons. Passed Ligirda a small hamlet of Kharias and a little way beyond entered the Khalsa of Raipur and passed through Chobotta and Kokuajar to the. There is some shade here and clear water from a kutcha well. All country over forest, but neither teak, sal nor bamboos to be seen.
15	Bondrabanda to Karti.	Distance about 11 miles - Soil sandy, country well cleared; road fair, but heavy in some places from sand. Rice and some sugar cane grown. Karti has a good encamping ground and has a Police Station House.
16	Karti to Mahasamund	Distance about 9½ miles. Soil at first black afterwards sandy and then gravelly. Country fairly cleared with mowah trees about. Road fair and apparently much travelled by carts. Mahasamund is a large village on a gravelly rise with fair shade at a pleasant distance from the village. Rice, sugar cane, ulsi, and chenna grown.
17.	Mahasamund to Parajaon (2 miles east of Arang).	Distance about 6½ miles. Country cleared throughout. Soil brown and yellow and laterite. Crossed the Mahanuddi by the Ghooran Ghaut. The river here is much narrower than

No	Stage	Remarks.
		than by the Aring crossing. Executive Engineer is making a branch road to this crossing from the Raipur and Sambulpur Road.
18	Paragaon to Nowagaon	At Paragaon the Raipur and Sambulpur road is struck and the whole distance from Paragaon to Raipur is by that road. About 2 miles from Paragaon, Aring, which has a considerable trade with Kalahandi is reached, and from Aring to Nowagaon the distance is about 12 miles. Country cultivated throughout.
14	Nowagaon to Raipur	Distance about 12 miles. Country cultivated throughout.

Note The total distance from Bhowani Patna to Raipur by this route is about 179 miles but I should judge that by straightening the line in places the total distance may be reduced to about 165 miles.

(Sd) C.B. Lucie Smith
Commissioner
Chattisgarh Dn

"True Copy of a copy"

Asst. Clerk P.W. Secretariat CP.

By Instl 1839 K

C.P.W.

Reference to Mr Turner Collector and Agent Vizagapatam to be forwarded to Mr Nordmann as follows

"Inform Nordmann urgently reconnaissance Orissi line not absolutely necessary but that from Jalbal viâ Nara to Arang obligatory + Cormack to reconnoitre simultaneously route from Blundessor viâ Dasper

= 1.8239 R.S. 12.91.

Nandul, Lorka,
Polsodar, Rojana
Torbar, Tarnot,
Sarabang, Tunder-
batta, Karki, to
Arang + Expect-
orders and new
perambulators
at Raipur"

Cs three are
So many names
of places better
print all those
mentioned in the
direction of the
Ld Agee

30/11/87

To W The Telegram was

despatched early this
morning - and fresh
copies will go to Mr
Turner & Mr Nordmann
today -

R.S.
1-12

No

18

19

3824/17

Ce [illegible]

Fw order

I circulate herewith
letter from Mr. Wardman
dated Ringmahon
16th Nov. and am
sorry I came late from
Lett. & Ch Commrs.
C.P. Forwarding a
letter and drawing
from Col Lane Smith
Commanding Chatham Sub
Division bearing
to the recommissioning
of the Vessels Pensions
Railways

The latter communi-
-cation is important
as it goes to show
that while there is
a reasonable & very
favorable tract of
country for the loca-
-tion of a line of
railway between

Kalabendy and
Renfore east of
the Nowgong hills
the country much
of these hills thence
Shantan to Nao-
ranfore (See para
6 Cl(4) S.O. 16. Secr.
1887 No 2294 W)
is difficult and in
the opinion of Col
Lewis Limits hardly
advisable

The cost of construction
in the opinion of this
Officer would be taken
by this latter route
"probably more than
counterbalance the
gain obtained by
avoiding the Mahaw-
-raddi, while the
line would lie
altogether apart
from the existing
trade route"

the gives a useful

3021/15

Vicinity of Kimbrook
Thence to Aney
Office of which I attached
Forwarded to Secretary
Chief Commissioner
Pindurei

Mr. Workman in
para 2 of his letter
raises a
the point he is instructed
in his memorandum
after leaving Bolpur
which the Chief
Commissioner
in

Please see annexed
three letters by myself
and Col Lewis - Limits
- also Atlas Sheet
on which is marked in
blue pencil Colonel
Lewis Limits route and
in red the line originally
sketched by Mr Work-
-mans reconnaissance

The points are for the
decision of Government
are
(1) Shall the reconnais
-sance of the western
route from Raipur
via Shantan to

Navarumpore be given up — or if not actually abandoned at once shall the opinion of the S[ecretary] be sought in regard to it?

(2) Whether the eastern routes shall Mr Nordmann now examine and report?

If the western Shamteri route is abandoned he could easily examine both the lines already detailed here from Ombadroola via Arur - Pudu, Bofor, Jalbal, Nara &c to Arnaj and Raipore — and also that traveled over & recommended by Colonel Lucie Smith from Bundasser via Mandola, Lundi Zamot &c — after reaching Raipore he would direct his return by the last named route

Colonel Shaw - Should does not attach much importance to the question as to whether Mr Nordman should or should not examine the line running directly north from Jalbal to Orkie but time can be so known in his doing so as in case of the Raipore railway being finished as direct to Calcutta (a contingency which it would certainly be well to bear in mind as highly probable) Orkie would clearly be the best point to make for as the point of junction

Very early instructions must be conveyed to Mr Nordmann and the following telegram if approved might be at once.

original to the Collector of Cust- Hyderabad to be forwarded
&c.

Reform Nizamabad
urgently recommended
Public Line not abso-
-lutely necessary but
that from Jalbal
via Mara to Arang
Obligatory & Expedi
-ent and new
Permanent Bridges at
Raipur"

29.11.915

ER.

I must ask you
please to look to the
point contained in
Para 20 of the Annual
Letter from Mr Nadkarni
Im please to call Public
is not readily discernible
in a hasty inspection
of the map however
time the Report is clearly
below the junction of the
Dindori & Zel rivers
I presume Mr N by
the route he proposes is
endeavoring to comply
with condition stated
in Clause (3) Para 6
of G.O. 2294 W and
if so may be left to his
own judgment - It is
almost too late to call
him if the line indicated
is not approved
I have just received
a diary of a route from
Colonel Lewis Smith in
which he describes an
apparently easy line for

Bundwarra made
more to the eastward
through a vile part of
the Nowgarh hills
(See maps limits in
which this route is shewn
in blue pencil)

We will not hear of
any route via Chantia
east of the Nowgarh
hills — it turns out dam
to me not-improbable
that Mr. N after reaching
Arang will have to
come back over Col.
Lucie Smith's route
instead of by Chantia

In diary is hurry copied
quickly in despatch to
Mr. N after which you
should have it. Prior
to circulation

Ottr
25-11-87

Onkri will be found in
Atlas sheet No. 91 S.E.
It lies N.N.E. from Nara,
on the right bank of the

Long 82½.

In a note written by me
on 27-9-87, Onkri was
named as a possible point
of junction for line from
Vizagapatam district with
Chattisgarh-Bengal line.

Copy of that note was given
to Mr. Nordmann, and it
is doubtless to find he has
studies.

It seems true uncertain
whether he goes to Onkri, or
not. Where can be no
possible difficulty along the
right bank of the Jonk.

The note in question is
known to W. and copy
is sent herewith.

The route advocated
has been marked in red
pencil on the maps now
returned.

V. Mauttwood
26-11-87.

To W.

Note.

30-D/87

So far as can be gathered
from careful study of all
available maps, the most
suitable line for a railway
to connect Raipur, in the
Central Provinces, with the
Vizagapatam seaboard,
appears to take some what
the following direction.

It seems uncertain at
present whether the town of
Vizagapatam, or Bimlipatam,
will ultimately be fixed on
as the coast terminus; but
in either case the first point
of importance to be made for
is Vizianagram.

From Vizianagram, the
line appears to run ~~direct~~
almost due north as far as
Srikakola, following nearly
the meridian 83°30' E., and
passing near Rambadrapuram,
Bobili, Parvatipuram, &
Rajmahada.

From Rajmahada, it
appears doubtful whether the
line should pass slightly

to the west, near Lingapur and Lonjigar, — or slightly to the east, near Biseinkatak and Borajuda, — reaching Onibadola in either case.

From Onibadola, the line appears to trend to the west, passing near Azzargor, — and crossing the Tel river near Bogor, just below its junction with the Sinder river.

From this point, the line appears to follow the left bank of the Sinder river, passing near Badbeng, Eukla, Karial, Kumuna, and Eorbor.

From Eorbor, the line crosses what appears to be a low watershed into the valley of the Jong river, — which stream it would either reach and cross near Nara, — proceeding in a north-westerly direction towards Arang; — or it would be carried in a northerly direction, along the right bank of the Jong river, towards Onki, near which place it might join the line proposed between Chattisgarh and Bengal.

The advantages of this route are, that the line is everywhere carried along the main systems of drainage, — and that it probably reaches no point higher than about 1500 feet above sea level. The line also appears to be as short as any that can be suggested.

27-9-81. W

ER

For Journal
and remarks
before circulation

25-11-26

97.

Careful Study of all
available maps made
it clear to me that the
line for a railway between
the Vizagapatnam seaboard
and Raipur must lie to
the East of the Nawagarh
hills, — and the expression
of the Commissioners opinion
strengthens that view.

After now reading Lol.
Lucie Smith's letter, my
view is that all idea of
taking the line to the west
of the Nawagarh hills &

W Dept

Letter from the Secretary to the Chief Commissioner, N.W.P.

Central Province No 9059 of 16th October 81.

Lt. K. Nordmann Rgt. Engrs on Special duty &

No 14/R / 16th November 1881

Price Note from W. of 25th —"—

— to W — of 26th —"—

Telegram to the Agent at Vizagapatam of 1st December 1881.

—

Circulated for information.

A.M. Lambert
Colonel R.E.
Secretary to Govt. W Dept

December 1881.

be abandoned, — and that Lt. Nordmann shd. be instructed to confine his reconnoissance to the country lying east of those hills.

The general direction of Col: Lucie Smith's march, does not differ widely from the line advocated by me. and roughly entered in red pencil on Atlas sheets 107-92 NE & 91 SE.

Where the two lines differ, examination of the country will probably show that the line advocated by me is better suited for a railway.

Mauntheroot

26-11-81.

From
order

No. 3025 W

H. F. Hawkins

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 5th December 81

Read the following :—

Letter from Mr. K. F. Haukmann Esq: Engineer on special duty. } H.E. No. 14/R dy 16th Nov 81.

Letter from the Secretary to the Chief Commr. Central Provinces } H.E. No. 9059 dy 16th Nov 81.

The papers above read, on the subject of the preliminary for the Virpapatnam and Raipur Railway will be placed on record. The latter containing a letter and Plans of Captain C. B. Lucie Smith, Commissioner Chattisgarh Division, is especially valuable as it appears

★ 6920
6849

Govt. of {1881} Madras.

PUBLIC WORKS.

To

Dated

Issued

Recd. Encl.

G. O., 5th Dec. 1881, No. 3025

3026

Nos. 15 to 16

Relating to the Vanjipapalam and Raipur Railway.

Certain papers on the subject of the — recorded with remarks dated 2nd Decr. 1881.

From Supt. Engr. Cuddapah with reports & letters from Brs. Horsburgh & Engr. on special duty and Supt. on the Chief Commr. Central Provinces on the Railway

Dr. 5/12

for the Vanjipapalam and Raipur Railway