

1926

X. 4176

KENYA

X. 4176
87

11 MAY 1926

11 MAY 1926

NOT
XF

from
MR S DEPT
NORTCOTE 398

Date
16th April 1926.

UGANDA RAILWAY
Branch Line to Thompson's Falls etc.

The copy report and Estimates
by the Chief Engineer as a result of a preliminary survey
by Colonel Prisall and forwards resolution passed by the
Branch Lines Committee.

Previous paper

Minutes within

4/11/25
51359

Subsequent paper

4/11/25

X (A)	14/5
W.D.	15/5
Stansby	4/6
Lowell	5/6
W. Jewell	

NOT TO BE TURNED INSIDE OUT.

Keft for discussion with his policy (5000).
 He agrees that this is the ^{best} ~~first~~ Kenya bond
 to be taken up (apart from the World
 Bank's bond which is covered by the
 £3,500,000 British loan of 1964), that
 Kenya will have to guarantee about one
 third of the cost (but he says not, ~~it~~ had
 expected, want a guarantee against
 loss or working). He also agrees that,
 here, and elsewhere, landowners
 ought not to demand compensation in
 respect of a development line, but
 that the consent of all the landowners
 will be required, so that no one
 gets an advantage over the others.

[Probably these comments will be
 hard to get out of the landowners
 at the bottom end of the line, of which
 they will be largely independent.]

The economic survey does not
 disagree, but the policy considers
 that the development value of the line
 justifies the construction. The cost is
 low, but there will in addition be the
 cost

Can of fees 1900-1901,
have no estimate.

We should send the report to the
C.A. for their views & those of the
C.E., and there would be no other
practical action if it were not for
our commitment to Council the

Planning about the year's further
proceeding up to 1934. We know
from the Gazette (I suppose
telling) that other routes have
been surveyed and, although they
we may have already, I think we
ought to avoid having to
dig from the Treasury every six
months or so.

I.e. the Governor should be asked
for a rough estimate of all the
capital expenditure on branch
railways likely to be required
up to 1934?

[A despatch is on its way to
India which explains our position

with regard to the...

19.5.26
O.S. 46

at the

- 2 To C.A. (copy reports estimate) ⁴⁸ Cons 8 JUN 1928
- 3 To Gov 5440 (no 1 amended) ⁴⁸ Cons 11 JUN 1928

This has been brought up on the question
as to whether a reminder should be sent to the
Secretary of State's despatch of the 11th June
asking for a rough estimate of all the capital
expenditure on branch railways likely to be
required up to 1934. This has no doubt been held
up in connection with the general loan proposals,
Colony as well as Transport; but as we shall,
whatever happens in regard to the £10 mill. loan,
have to go to the Treasury it would seem advisable
to send a despatch saying that the Secretary of
State has not yet received a reply to the one of
the 11th June, but assume that the information
asked for will be furnished when final schedules
are submitted for loan expenditure on transport
and Colony purposes. (We know from a recent
telegram that Sir E. Grigg intends to make these
final proposals after discussion of the matter here.)

W. Allen

4/7/27. 27/1/28

4% Gov 97 Cons 24 FEB 1927

4 February, 1927.

Sir,

My attention has been drawn to the fact that I have not yet received a reply to my despatch No. 540 of the 14th of June in which I asked that I might be furnished with a rough estimate of all the capital expenditure on branch railways which is likely to be required up to 1934.

I assume, however, that the information asked for will be furnished when final schedules are submitted for loan expenditure on Transport and Goods by purchase.

I have the honour to be,

Sir,

Your most obedient

Herbert Morrison

20
x 4176/26

91

(4)

- Mr. Jewell 31/1/27
- Mr. Allen 1/2/27
- Mr. E. J. Harding
- Sir C. Strachey
- Sir J. Shuckburgh
- Sir G. Grindle
- Sir E. Davis
- Sir R. Wilson
- Mr. Ormsby-Gore
- East of Olerendon
- Mr. Amery



4 Feb 1927

Sw

My attention has been drawn
I have the honor to inform

DRAFT

to the fact
for that

I have not yet received

London
No 94
OAG

a reply to my despatch No 540 of the

16th of June in which I asked that

I might be furnished with a rough

estimate of all the capital

expenditure on branch railways

which is likely to be required

up to 1934.

2. I assume, however, that

5a Kenya
44176/26

91

(X)

Jewell 31/1/27
Allen 1/2/27

- Mr. E. J. Harding.
- Mr. C. Strachey.
- Sir J. Shuckburgh.
- Mr. G. Grindle.
- Mr. C. Davis.
- Mr. S. Wilson.
- Mr. ...
- Earl of Clarendon.
- Mr. ...

RECEIVED
FEB 3 1927

5 Feb 1927

5a

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DRAFT.

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for that

I have not yet received

Kenya
no 97
OAS

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expenditure on branch railways
which is likely to be required
up to 1934.

2. I assume, however, that

Jewell 5/6/26

Mha

576

P 920
Ans 5324

92

Downing Street,

9 June, 1926.

J. Harding.

Strachey.

Shuckburgh.

Grindle.

Davis.

Wilson.

Wynne-Gore.

Clarendon.

Finery.

Gentlemen,

I am etc. to transmit

to you a copy of the Report and

estimates prepared by the Chief

Engineer of the Kenya and Uganda

Railways as a result of the pre-

liminary survey for the projected

branch line to Thomson's Falls and

the Naivasha District from a point

on the main line approximately mid-

way between Naivasha and Gilgil

stations. The results of an

economic survey conducted by the

Deputy Director of Agriculture and

AFT.

Crown Agents
for the Colonies.

drafts

the

the Commissioner of Lands are included

in the Report.

2. I request that you will

obtain the observations of the Consult-

ing Engineers on the Report ^{Articles} and submit

them to the S. of S. together with your own

^{Remarks}
observations.

I am, etc.,

(Signed) H. T. ALLEN.

Copy

1.4176/26.

Ken

Downing Street.

9 June, 1926.

Gentlemen,

I am directed by Mr. Secretary Amery to transmit to you a copy of the Report and Estimates prepared by the Chief Engineer of the Kenya and Uganda Railways as a result of the preliminary survey for the projected branch line to Thomson's Falls and the Naivasha District from a point on the main line approximately midway between Naivasha and Gilgil stations. The results of an economic survey conducted by the Deputy Director of Agriculture and the Commissioner of Lands are included in the Report.

I am to request that you will obtain the observations of the Consulting Engineers on the Report and Estimates and submit them to the Secretary of State, together with your own remarks.

I am, Gentlemen,
Your most obedient servant,

(Signed) H. T. ALLEN.

CROWN AGENTS
FOR THE COLONIES.

Jewell 5/6/26
Allen 5/8

3 7



Downing Street, 94
// June, 1926.

- J. Harding.
- Strachey.
- Shuckburgh.
- G. Grindle.
- C. Davis.
- S. Wilson.
- Ormsby-Gore.
- of Clarendon.
- Amery.

Handwritten initials 'GW'.

Sir,

Handwritten mark resembling a stylized 'H' or 'A'.

I have etc. to acknow-
 ledge the receipt of your despatch
 No. 395 of the 16th April, transmitti
 a copy of the Report and Estimates
 prepared by the Chief Engineer of
 the Kenya and Uganda Railways as a
 result of the preliminary survey fo
 the projected branch line to
 Thomson's Falls and the Naivasha
 District from a point on the main
 line approximately midway between
 Naivasha and Gilgil stations, and t
 inform you that a copy of the Report

DRAFT.

YA 540
Gov. Grigg.

has been sent to the C.As. for the
Cols. for their observations and
those of the Consulting Engineers.

2. ~~In the meantime~~ I should
be glad if you would furnish me with
a rough estimate of all the capital
expenditure on branch railways which
is likely to be required up to 1934.

I have, etc.,

In view of the
necessity for
consulting the
Treasury in regard to
further borrowings

13189 G. AMERY

June, 1926.

548

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I have the honour to acknowledge the receipt of your despatch No. 395 of the 16th April, transmitting a copy of the Report and Estimates prepared by the Chief Engineer of the Kenya and Uganda Railways as a result of the preliminary survey for the projected branch line to Thomson's Falls and the Naivasha District from a point on the main line approximately midway between Naivasha and Othaya stations, and to inform you that a copy of the Report has been sent to the Home Office for the Colonies for their observation and those of the Consulting Engineers.

2. In view of the necessity for consulting the Treasury in regard to further borrowing, I should be glad if you would furnish me with a rough estimate of all the capital expenditure on branch railways which is likely to be required up to 1934.

I have the honour to be,

Sir,

Your most obedient,
humble servant,

(Signed) AMERY

GOVERNOR,
 EAST AFRICAN COLONY,
 SIR E. L. BRIDGE, K.C.V.O.,
 C.S., D.S.O.,
 &c., &c.

KENYA

No. 395



GOVERNMENT HOUSE,

NAIROBI,

KENYA.

53

X. 4176
11 MAY 1926

16th April, 1926

Sir,

I have the honour to transmit for your information a copy of the Report and Estimates prepared by the Chief Engineer of the Kenya and Uganda Railways as a result of a preliminary survey conducted by Colonel Frisell for the projected branch line to Thomson's Falls and the Naivasha District from a point on the main line approximately midway between Naivasha and Gilgil stations. The results of an Economic survey conducted by the Deputy Director of Agriculture and the Commissioner of Lands are included in the Report.

2. It will be noted that the length of this branch railway is 50 miles and the estimated cost per mile £4705 or an aggregate cost of £235,265.

3. On page 10 of the Report attention is drawn to the present method of charging the costs of compensation and acquisition of land when building branch railways to the capital cost and thus expending the Colony's money for the benefit of a very confined district. In this connection it may be

Estimates

1/1/26

Ans. d. 5/10

RIGHT HONOURABLE
 LEUTENANT COLONEL L.C.M.S. AMERY, P.C., M.P.
 SECRETARY OF STATE FOR THE COLONIES
 DOWNING STREET
 LONDON, S.W.

be stated that in June 1924 the late Governor with the advice of the Executive Council approved of the principle that increased rates should be imposed on branch lines to meet a loss in running costs which could be incurred if Main Line rates were charged. He further approved of the principle that when a branch line is to be constructed the inhabitants of the District concerned should be approached with a view to avoiding claims for compensation and should be informed that any compensation which might be paid would be met from Loan Funds and that the interest on the money so expended would be added to the working costs of the branch line and would be taken into account in assessing the rates to be charged.

Up to the present time no occasion has arisen requiring the adoption of this principle.

4. A Railway Branch Lines Committee has been appointed by the Governor and the first Resolution made by this body reads as follows:-

"RESOLVED to recommend that the Government be advised that, in the opinion of the Railway Branch Lines Committee, the ~~the~~ Thomson's Falls Branch Railway ~~is~~ ^{over the} suggested ~~is~~ ^{to be} provided ~~so~~ ^{so that} the Kenya and Uganda Railway may start work thereon at the earliest opportunity.

"RESOLVED further to recommend that if the Government decides to proceed with the construction of this Branch Line, the decision be made public

public as soon as possible in order that further preliminary development of the area may go forward".

This Committee considered that this branch railway should take priority not only on account of the promising Economic Report already referred to but also because it is the only projected branch line recommended by the Inter-Colonial Railway Council in respect of which the sole condition laid down was that the Government of Kenya should guarantee the Railway against loss to the extent of Interest Charges only.

5. A further despatch will be addressed to you on the subject when Government have considered the above quoted resolution. In the meantime the Director of Public Works is being asked to estimate the cost of the feeder roads, which as the accompanying Report points out, would be required to serve stations owing to the difficult nature of the country.

I have the honour to be,

Sir,

Your most obedient, humble servant

J. K. V. Northcott
GOVERNOR'S DEPUTY

KENYA AND ⁹⁹
UGANDA RAILWAY.

THOMSONS FALLS
BRANCH

PRELIMINARY SURVEY

1925

METRE GAUGE

LENGTH 50 MILES

REPORTS AND ESTIMATES

KENYA AND UGANDA RAILWAY.THOMSON'S FALLS BRANCH.METER GAUGELength. 80 Miles.REPORT AND ESTIMATE.

Nairobi.

LONDON

KENYA AND UGANDA RAILWAY.
THOMSON'S FALLS BRANCH.

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REPORTS AND ESTIMATES.

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KENYA AND UGANDA RAILWAY.THOMPSON'S FALLS BRANCH.METRE GAUGE.LENGTH 50 MILES.REPORT AND ESTIMATES.Chapter I.HISTORY AND GEOGRAPHY.

Proposals to build a branch from the neighbourhood of Gilgil to the Thomson's Falls area were first examined in 1910 when Lt. Hall conducted a very thorough reconnaissance of the district. The suggestion at that time was to build a line to the Nyeri District via Thomson's Falls. A suitable line passing east of Lake Ol Bolosset with 2.5% ruling grades was found. Owing to the building of the Thika - Nyeri Line, however, via Fort Hall, the need for a line to Nyeri via Thomson's Falls disappeared. The present demand for a railway, therefore, is based entirely on the local needs of the district for a branch line to carry its products to suitable markets. The area to be served is not a large one being bounded on the east by the Aberdares, and on the west by the Escarpment, overlooking the Solai Valley. The general altitude of the district varies from 6000 feet near Gilgil to 9000 feet on the western border. A suitable route towards Thomson's Falls would not rise above 8000 feet. The area is well watered throughout, and many parts of the higher land on the western side of the area are fairly closely settled and developed.

6000

The demand for a Railway has increased steadily with the growth of the development, largely because the existing roads in the area become practically impassable during the wet weather.

The question of good feeder roads to the stations and sidings on the Branch is one of extreme importance to the district, as without these the Railway would be of little value during the wet weather to out-lying districts.

A plan showing the alignment has been forwarded to the Director, Public Works Department, but his estimate of cost of feeder roads is not yet available for inclusion in this report.

Provision should however be made in Public Works Department estimates for such feeder roads.

An Economic report for the area in question has been prepared by the Director of Agriculture, and is included in this report as Appendix. *See page 104*

Junction with the main line is effected at Mile 309 close to Waterloo farm where a station to be called Marula, is proposed. This gives a shorter and better route in every way, than a junction at Gilgil would do. A station at this point is moreover now necessary for the purpose of reducing the long section between Naivasha and Gilgil. The Preliminary survey in the field was carried out by Col. Frisell, and the information presented in this report is based on the results obtained by him.

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Chapter 111.LOCATION.

The location of the line is comparatively easy except for the first 10 miles or so out of Marula Station, where the country is very much cut up by the Gilgil and Malawa Rivers and their tributaries, which run in deep gorges. As a result of a rather intensive survey of this area a suitable route was found.

DETAILS OF LINE.

The first difficult portion is controlled by three key points (saddles) which have to be crossed:

A. (chain 22, mile 6) the lowest point on the watershed between the Gilgil and Malawa Rivers.

B. (chain 32, mile 15½) the lowest point between the River chain 77.500 and Ollende river above the big canyon, and

C. (chain 119.500, mile 22½) the lowest point on the ridge between Simba Valley and the high plains.
(mile 14 on the main road).

In order to get up to point A, the line had to be developed by curving back at chain 8. It is also desirable to get above a sharp rocky bluff at chain 27, which would be very expensive to cut through. This involved running the line along a rocky hillside, giving a comparatively heavy section chain 20 to chain 26. (This could be improved by introducing sharper curves than 10° at chain 23 and 24). At A. is a possible site for a siding, if wanted by Kipipari Estates.

From A. Mile 6 to Mile 9½ the line is easy, but from the latter point along a narrow ledge above the big canyon up to B, the section is rather heavy on rocky side-slopes. Up to Mile 9½ the location was made 1.5% max., but extensive

compensation for curvature beyond Mile 9½ necessitated an increase in the grade to 1.6% max. for getting up to saddle B. (By introducing 1.6% max. also up to mile 9½ the earthwork could be slightly improved in certain places when the line is staked out). The portion round the canyon also necessitated a 16° curve at 69,000 in order to avoid a high retaining wall.

From B to C. the line has to cross three deep valleys i.e. the Oliande River, a tributary to Simba River (not permanent) and the Simba River itself (sometimes dry). All these crossings would be very expensive if 16° curves were not used. As shown in the plan, the Oliande Valley farther up gets too narrow even for a 16° curve. The cheapest line consequently climbs down from B to the crossing and from there is mostly maximum grade up to saddle C. This section in any case gives enough spare grade for a Station at mile 7½ with a gravity supply of water from Oliande River.

The section Mile 17 to Mile 20 is easy; but the section Mile 20 to Mile 22½ is rather heavy along the steep side-slopes of Simba valley.

Beyond C. ("Verbes' saddle") the line runs on the open high plains. The country is undulating and traversed by a number of water courses, running from west to east, most of them fairly deep. The route has been surveyed as straight as possible to the Fal using maximum and momentum grades up and down for shortening the line. Some of the valleys necessitate curvature upstream in order to obtain easy crossings.

A very slight alteration of the line would give a good site for a siding at Mile 27½. At chain 171 the line reaches the summit - 7,960 feet.

At chain 176.177 the line has been curved round
marsh, 500

the main road, and
and below it.

At Mile 302 (chain 209) is the proposed site for
Lesirke Station. If necessary, a water supply
could be obtained from the Upper Staba River, a
few hundred yards up in the forest.

Beyond Lesirke the ground is liable to be marshy
in several places, making low banks necessary.

This is especially the case at chain 225, 225.300
and 228 - 231 where a number of springs come out
of the ground just below the forest. The line
has to be located above the marshy ground on the
side slopes, but the drainage nevertheless is
rather important.

At chain 237 the line could have been curved to
the right, following the direction of the main
road and crossing the Ol Orainutia below its
junction with the river at Chain 256, thus
avoiding the marsh. This would, however, have
made the line probably longer and also
would have crossed a long stretch of
marshy ground.

The proposed Ferniman (Mile 50, chain 264) is
on the western slopes of the hill, directly west
of Thomson's Falls.

Another possible site is on the eastern slopes
of the same hill (about the same length of line),
but this site would cause difficulties if the
line should be extended, being in a cul de sac.
It would also probably interfere with a future

The site suggested is 4500 feet west of, and 125 ft. above the top of the Falls. A gravity supply being impossible, the water must be brought up by pump or ram. The actual Falls are 195.6 ft. high. The station site gives ample space for a triangle godown plots, and staff quarters (on the top of the hill).

STATIONS AND AGNES ROADS.

Serve

The country round the above section of the line is already served by Gilgii Station, but a siding at Mile 8 would serve the big Kipiperi Estate a few miles cartage when their Saw Mills have been developed. There is easy access from "Hamden's Bridge".

FIRST STATION (OLIONDO). would be still better situated just beyond Forbes' saddle, but the necessity for a reliable water supply for climbing this maximum grade section influenced the choice of the present site. The farms on the top, including the settlement in Vanjehi Valley, will get about 2 miles more cartage this way, using the main road down Simba Hill, but the farms round Oliondo Valley can be well served by roads, as shown on the key map.

THE POSSIBLE SIDING AT MILE 22. would serve a good number of farms. There is already a road leading west from the main road above this place (Patten farm) which could probably be improved to serve a number of farms in the western area.

IBSIRKO STATION is, according to the farmers concerned, the best for serving the higher portion of the western farm area. There is already a road from the western main road through Simpsons', Judges' and Mrs Birley's farms crossing the line close to the station site, and this road can easily be improved and branched off to the left through Swift and Rutherford's farms towards Col. Patterson's,

giving this big farm area a good outlet to the Railway. According to people who know the country well, a road could also fairly easily be constructed eastwards across the marshes near lake Ol Njore Rok (a couple of bridges needed) and up the Aberdare Escarpment for serving the farm area on the top.

THE TERMINUS, is situated close to the junction of existing roads from Rumuruti, Peasi (Nyeri) and western area (old Nakuru road).

Chapter IV.

ALTERNATIVE ROUTES AND POSSIBLE EXTENSIONS.

As stated above, a junction at Gilsil could have been made, but this would have increased the distance to the coast and has no advantages except perhaps from a purely local point of view. There is no practical alternative route to the one selected as any digression to the east or west would have involved very much greater expense, without compensating advantages. The need for tender roads to the stations is however again explained. The site for the terminal station has been selected as the best part of the line being continued & it may be that some advantages should there ever be found to justify an extension.

As in the case of previous branch lines, I must again draw attention to the fact that where a line such as this benefits a very confined district, it does not appear sound finance to include such items as compensation or cost of acquisition of land, in the capital cost of the line. It would be preferable, if suitable machinery could be found, for such items to be set out of district funds. It must be realized that the moment a railway is sanctioned the value of all property increases very rapidly and there should be some method of taxing such appreciation of value to meet the charges of this nature.

Until, however, the necessary machinery is evolved I presume the cost of construction and of the acquisition of land must remain a charge against the capital cost of the Railway.

Chapter VI.

112

CONSTRUCTION AND ENGINEERING.STANDARDS OF CONSTRUCTION.

Branch line standards will be adhered to and second hand permanent way will be utilized. Stone ballast will be required in all cuttings owing to the nature of the soil, and heavy rainfall of the district. It has, however, generally been found more economical to provide permanent buildings where materials are available.

In accordance with the general policy of the Railway tariffs, goods sheds will be provided to deal mainly with imports only. These call for no special remarks.

The staking out curves should be carried out in advance of construction and if possible not during the wet weather.

The usual widths, i.e. 100 ft. on either side of the centre line, and 600' x 2000' in stations, have been allowed for.

The usual standard widths of banks and cuttings have been adopted, i.e. 14 ft. banks and $1\frac{1}{2}$ - 1 slopes and 16 ft. cuttings and 1-1 slopes. The earthwork is generally not heavy except perhaps through the first 10 miles where a considerable amount of work may be encountered.

Bridge work generally is not heavy, but this question will be further closely examined during the final location survey. There is a heavy rainfall in the district at times, and much of the land is composed of black cotton soil. Drainage must therefore be carefully attended to.

PRELIMINARY REVENUE.LAND.FORMATION.RAILCOTTON.

FENCING.

Very little fencing has been allowed for, though some local pressure is being exerted in this direction. This again is an expenditure which might properly be charged against the district.

BALLAST AND PERMANENT WAY.

Stone ballast will be necessary in all cuttings and second hand permanent way released from the main line will be used throughout.

STATIONS AND BUILDINGS.

These will be of simple design, but where suitable materials exist, will be of permanent type. Owing to the distance from the nearest running shed (Nakuru) it may be necessary to have a small running shed on the branch, either at Marula or at the terminus.

TELEGRAPHS.

Three wires have been allowed for, one of which will be solely for Government use. Poles of local cedar or creosoted posts will be used.

PLANT.

No expensive plant will be required for construction purposes.

ROLLING STOCK.

No charge has been shown for rolling stock as it is considered that the main line can provide such stock for construction and for working the line afterwards.

GENERAL AND MISCELLANEOUS CHARGES.

These have been kept as low as possible, but medical and labour requirements are always an uncertain quantity. One and a half years have been allowed for construction purposes, but this period would not be fully required if the labour position could be relied upon. Under existing conditions in the Colony the actual period of construction may become even longer.

COST OF CONSTRUCTION.

The value

of the property is estimated to be \$2,4705
 less the amount of the
 tax which is estimated to be \$2,4705
 less also, on a total of \$2,4705.

RAILS AND DIVISION PROJECTS. As pointed out in the economic report of the district, the quantity of produce likely to be transported by rail is not high. The district is a promising one, however, and must have rail facilities if it is to progress further. The existing settlers have shown considerable enterprise and closer settlement and more intensive production is bound to follow the provision of suitable means of transport. Moreover, it is possible that the district north of Thomson's Falls will prove more profitable from a railway point of view than is at present anticipated. The country to the north and east is largely pastoral, but to the north and west there is a considerable quantity of timber and some promising valleys where agricultural development may be possible.

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CHAPTER VII.TRAFFIC AND DIVISION PROSPECTS.

As pointed out in the economic report of the district, the quantity of produce likely to be transported by rail is not high. The district is a promising one, however, and must have rail facilities if it is to progress further. The existing settlers have shown commendable enterprise and closer settlement and more intensive production is bound to follow the provision of suitable means of transport. Moreover, it is possible that the district north of Thomson's Falls will prove more profitable from a railway point of view than is at present anticipated. The country to the north and east is largely pastoral, but to the north and west there is a considerable quantity of timber and some promising valleys where agricultural development may be possible.

ter VIII.

CONCLUSIONS AND RECOMMENDATIONS.

Summarised briefly, it is not ¹¹⁶ likely that the Railway will pay for some time, but looking at the question broadly from the point of view of the better development of the Colony the possibilities of the district would appear to justify construction on a guarantee from the Colony to reimburse the Railway for at least interest charges on Capital.

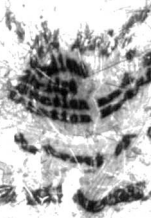
If the construction of this branch is decided upon, the district should be informed accordingly as early as possible, so that development may go ahead.

The location survey and preparation of final working plans could be put in hand towards the end of the present year, and construction could start early next year.


CHIEF ENGINEER,
KENYA AND UGANDA RAILWAY.

(For list of tabulated details, estimates, ~~specifications~~, plans, see page 16).

FEDERAL BUREAU OF INVESTIGATION



UNITED STATES DEPARTMENT OF JUSTICE

OFFICE OF THE DIRECTOR

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KENYA AND UGANDA RAILWAY.

THOMSON'S FALLS BRANCH.

TABULATED DETAILS.

KENYA AND UGANDA RAILWAY.

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THOMSON FALLS BRANCH.

METRE GAUGE.

CURVE ABSTRACT.

Length 50.05 MI.

Degree & Radius of Curve.	No of Each.	Length		Total Curvature in Degree.
		Feet	Miles.	
= 359.265	4	3877	.734	618° 40'
= 478.339	2	2486	.470	297° 49'
= 573.680	27	21377	4.029	2130° 06'
= 637.27	1	630	.119	66° 56'
= 716.78	28	14467	2.739	1156° 28'
= 819.02	2	2615.	.478	170° 58'
= 986.36	16	8858	1.621	513° 22'
= 1146.28	5	4328	.805	212° 41'
= 1432.60	41	26344	4.980	1056° 06'
= 1910.08	10	8151	1.545	244° 48'
= 2264.93	14	11756	2.222	236° 51'
= 2729.45	8	11640	2.206	1160 29'
= 3149.20	1	380	.064	1° 50'
TOTAL.	169		23.012	6812° 00'
Ratio of Curve to length of line %			45.97%	
Average amount of Curvature per Mile.				136° 06'

KENYA AND UGANDA RAILWAY.
THOMSON'S FALLS BRANCH.

1-0% Compensated.	20	18-800	33,175
1-0% to 1-3%.	30	18-450	30,944
1-3% to 1-0%.	14	2-048	4,088
1%	47	7-849	18,680
	31		10,118
		80-	1,000
Grade.	2.5		
Length of Steepest Grade.			
By.	1.5		
	1.5		

BRIDGE ABSTRACT.

Class of Bridge.	Spans.	Total No: of spans.	Waterway lin. ft.
Pipe Drains.	18"	73	73
	18"	30	345
	24"	17	34
	30"	27	81
Arch Culverts.	6 feet.	3	18
	12 "	9	108
	20 "	3	60
Girder Bridges.	Nil		
TOTALS.		155	719
Waterways per mile.			14.36

KENYA AND UGANDA RAILWAY

THOMSON'S GALLI BRANCH

METER 2-00

Length 50.00 M.

ABSTRACT OF REVENUE AND EXPENDITURE

Name of Station.	Class V & C C & G S & D	Mileage from Zero.	REVENUE AND EXPENDITURE			REMARKS.
			Site.	Trackling.	Water.	
Marula.	V & C.	0	-	-	-	Mile 300 on Main Line
Site.	C.	5.00	5			
Glendo.	V & C.	17.39		17.39	17.39	
Site.	S.	22.00	10.51			
Lerigo.	C.	29.51		22.22		
Thomson Falls. (Terminal.)	V & C.	50.00		17.44	32.00	

KENYA AND UGANDA RAILWAY

THREME FALLS BRANCH

ABSTRACT OF QUANTITIES

NETT 64.02.

Length 10.05 Miles.

NAME OF STATION.	ASH PITS.	WATER TANKS COMPLETE.	WATER TANKS COMPLETE.	WATER PIPING.			SIGNALS.	CYCLES SIGNALS.	ENGINE CRIBS.	1000 GAL EXHAUSTION PANS.	1000 GAL PANS.	FUEL CRIBS.	TRIANGLES.	CRANES.	SIGNALS, CRIBS AND THE LOADING MACHS.	
				6"	4"	3"										
				To be equipped by Main Line.												
do.	1	2	2	900	-	9000	2	2	-	-	-	2	-	1	(3 Ton).	1.
do.	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	1.
one mile.	1	1	2	450	-	4500	1	1	1	1	1	1	1	1	(5 Ton).	1.

SILOCK - THURSON'S FALLS BRANCH.

METRE GAGE.

Length 53 Miles.

GENERAL ABSTRACT COST OF RAILWAY.

of account Sub-head.	Sub Head		Main Head.	
	Cost.	Rate per mile.	Cost.	Rate per mile.
PRELIMINARY EXPENSES.	£hs	£hs	£hs	£hs.
Survey Expenses.	15,360	307		
Plant.	4,783	96	63,900	1,279
Establishment.	43,757	875		
			17,800	354
CONSTRUCTION.			794,646	15,393
Earthwork.	612,737	12,256		
Drains.	88,032	1,761		
Maintenances.	70,077	1,402		
Clearing.	20,200	404		
Road Diversions.	3,600	72		
			653,473	13,069
STRUCTURES.				
Major Bridges.	Nil	Nil		
Minor Bridges.	568,012	11,100		
Culverts.	98,461	1,969		
			27,765	556
LAND.				
Fencing.	12,903	258		
Boundary Posts.	4,000	80		
Gradient posts.	4,400	88		
Mile posts.	900	18		
Level Crossings.	8,568	171		
			98,134	1,903
PHYSIC TELEGRAPH.				
CARRIED FORWARD.			1,682,708	33,084

GENERAL ABSTRACT COST OF RAILWAY (CONTD).

Head of Account Sub-head.	Sub-Head.		Main-Head.	
	Cost.	Rate per mile.	Cost.	Rate per mile.
	Shs.	Shs.	Shs.	Shs.
ROUGH FORWARD.			1,852,708	37,054
REPAIR & MAINTENANCE.			1,124,478	22,489
STATIONING.				
a) Permanent way.	910,280	18,205		
b) Ballast.	90,998	1,819		
b) Sidings.				
a) Permanent way	108,230	2,164		
b) Ballast.	Nil	Nil		
c) Points & Crossings.	14,000	280		
STATIONS & BUILDINGS.			906,120	18,122
a) Stations & Offices	167,600	3,352		
b) Workshops & Stores.	Nil.	Nil.		
c) Staff Quarters.	871,200	17,424		
d) Station Machinery	167,220	3,344		
PLANT.			165,118	3,302
a) Engineering.	12,400	248		
b) Construction.	94,718	1,894		
c) Locomotive.	4,000	80		
d) Carriage & Wagon	4,000	80		
e) Station & Office Furniture.	50,000	1,000		
FURNITURE.			Nil	Nil
ROLLING STOCK.			Nil	Nil.
CARRIED FORWARD.			3,886,421	76,729

SILCHIL - THURSON'S FALLS BRANCH.

METER GAUGE.

LENGTH 50 MILES.

GENERAL AVERAGE WORK OF RAILWAY (CONT'D).

Name of account	Sub head.		Main head	
	Cont.	Rate per mile.	Cont.	Rate per mile
	£HE.	£HE.	£HE.	£HE.
			5,856,421	76,722
			688,800	17,576
Construction.	116,000	2,320		
Engineering.	409,000	8,180		
Stores.	60,900	1,218		
Audit and Accounts	72,700	1,454		
Native Administration.	77,600	1,552		
(f) Medical & Sanitation.	152,000	3,040		

GRAND TOTAL.	£HE.	6,706,821	86,108
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£HE.	6,706,821	86,108
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NAIROBI 25th. November. 1924.

J.S/5/5956.

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The Hon'ble the Colonial Secretary.YOUR S.2734/1/6 OF 27TH. MAY. 1924.Economic Survey - Gilgil - Thomson's Falls.
West Kenya Railway - 1924

We attach hereto a separate sheet summary analysis of the present facts of development in the Gilgil, Thomson's Falls, Rumuruti and West Kenya area. You will observe that that Schedule includes a column giving the data on which an estimate of possible future development might be framed.

PROCEDURE. We have proceeded on the lines adopted by Messrs. Cooper, Martin and Holm in 1919 in the economic survey of the then contemplated Uasin Gishu and Nyeri extensions.

We commenced operations by circularising all the local bodies from whom it appeared likely statements of relevant facts would be obtainable and of value. We then proceeded on a preliminary visit with the double object of inspecting the terrain itself and of explaining in person and by discussion the nature of the information for which we had already asked. Our final step was to discuss already prepared statements with the local representatives responsible for them and to complete our personal survey of the land. We believe that this report will, in consequence, present a not unfair picture of present facts and a conservative estimate of future possibilities.

GENERAL REMARKS.

Generally speaking the large area under review appears fairly sharply divisible into two categories: there is the Gibolessat Valley (including the Gilgil escarpment slopes which form one side of that valley) which together with the broad

saddle which connects the Northern end of the Aberdare range with the Maroniet escarpment may be defined as the one homogeneous block of land which has agricultural possibilities to be found in the field of our survey. The balance of the area consists of the Laikipia plains stretching from the sufficiently clean-cut limits of the eastern Aberdare slopes to the western slopes of Mount Kenya; this area must for the purposes of our Report be regarded as purely pastoral, subject however to the qualification that comparatively small and scattered islands of cultivation could be developed but that production there from cannot be considered of any great amount. The economic problem which confronted us, if of course, similarly divisible into two parts and we believe that the solution of one part will carry with it at least a partial solution of the other. The agricultural portion is fairly compact and so situated and shaped that a feeder line to it would run almost at right angles to the main Uganda Railway; it is not dependent, in our opinion, on such a railway for future prosperity and the proper development of its resources, but also, we are convinced, it possesses potentialities which will justify such a branch railway as ultimately a profit making part of the general railway system. In short, this agricultural portion can by itself put up a sufficient case for assistance of this nature. The part of the problem which is concerned with the pastoral unit is perhaps not quite so easily defined; it is however at once worth notice that this area is situated, as regards the agricultural area, on the far side of it from the main line; i.e. it is not necessary to traverse the pastoral country to tap the agricultural, while a terminus somewhere within the latter area would not be very remote from at least one border of the former. It is further clear that it is hardly probable that a pastoral area as such would be able to stand on its

only

own legs as regards justifying railway extensions, nor do we believe that it can in this particular instance. Nor again does such an area require immediate railway facilities to anything like the same extent for its development as does an agricultural district. On the other hand we believe that to push ahead to the fullest extent the development of the Thomson's Falls group of agricultural farms including those on the East of the Haronet escarpment would re-act to the benefit of the Rumuruti pastoralists if only in creating a local market for the dairy or draught stock bred in the pastoral area: while in any case the presence of a railway terminus at say Thomson's Falls should be of genuine assistance to dairying outside the agricultural area, to pastoral farms which are at present at excessive distance from any existing or sanctioned line. It would appear in fact that to extend a railway into the pastoral area would be to add a non-paying and a not vitally required length to an otherwise profitable and in any case necessary line. We must, however, confess that any railway extending only as far as Thomson's Falls would benefit the west and north Kenya farms, and it is our opinion that any benefit to them of this nature should more properly and economically come from an extension of the Nyeri Railway, which is not within the scope of our enquiry.

The attached maps showing the natural and economic divisions of the country, may help to illustrate these generalisations.

THE FIGURES.

The total area with which we are concerned is 2,012,565 including 193,051 acres of forest reserve. The area affected by the railway proposed is, however, only 1,535,319 including all the forest reserves.

The European population in this area numbers 284, the native population in this area numbers 2507. No native reserve will be directly by the construction of this proposed railway. Of the total area 641,937 can be described as occupied to-day, but not more than 97,000 acres can be considered as possible crop bearing country, that is approximately 7% of the total area

own legs as regards justifying railway extensions, nor do we believe that it can in this particular instance. Nor again does such an area require immediate railway facilities to anything like the same extent for its development as does an agricultural district. On the other hand we believe that to push ahead to the fullest extent the development of the Thomson's Falls group of agricultural farms including those on the East of the Harmonet escarpment would re-act to the benefit of the Rumuruti pastoralists if only in creating a local market for the dairy or draught stock bred in the pastoral area; while in any case the presence of a railway terminus at any Thomson's Falls should be of genuine assistance to dairying outside the agricultural area, to pastoral farms which are at present an excessive distance from any existing or sanctioned line. It would appear in fact that to extend a railway into the pastoral area would be to add a non-paying and a not vitally required length to an otherwise profitable and in any case necessary line. We must, however, confess that a railway extending only as far as Thomson's Falls would in no way benefit the west and north Kenya farms, and it is our view that any benefit to these of this nature should more properly and economically come from an extension of the Nyeri Railway, which is not within the scope of our enquiry. The attached maps shewing the natural and economic divisions of the country, may help to illustrate these generalisations.

THE FIGURES.

The total area with which we are concerned is 2,012,568 including 193,081 acres of forest reserve. The area affected by the railway proposed is, however, only 2,533,319 including all the forest reserves.

The European population in this area numbers 284, the native population in this area numbers 2367. No native reserve will, directly by the construction of this proposed railway. Of the total area 641,937 can be described as occupied to-day, but not more than 97,000 acres can be considered as possible crop bearing country, that is approximately 7% of the total area

served by the proposed railway. At the present time 7,344 acres only are under cultivation. The whole carries 93,388 head of stock of all kinds. The present tonnage which would be available for carrying on the branch line if an existence would be about 7,000 tons only; a twelve months distant total under the same circumstances should be about 11,000 while some long period such as five years ought, we think, to produce somewhere between 30-40,000 tons. The produce would include wool, butter, timber, maize, wheat, barley, linseed, flax; the diversity of production should be noted. There are eight sawmills in the forest land, six of which are in the agricultural area. It is to be remarked that by far the greatest collections will be made at the terminus of the suggested line the possibilities of the land around and beyond the terminus being very great. It is hardly within our competence to suggest the tonnage which would be required to make a railway branch from Gilgil to Thomson's Falls way, but would hazard a figure of some 30,000 tons. We trust that the attached summary will give the required figures; details, farm by farm, have been compiled by us.

REMARKS IN CONCLUSION.

We believe that a case exists for a branch line from Gilgil to Thomson's Falls, it should, however, to tap the excoriated farms properly, be on the side of the Ol Belesent Valley opposite to the Aberdares and not as aligned in a very early survey, on the side immediately under that range. We do not think that purely from an economic point of view a case is made out for any extension of such a line to Rumuruti or further, but believe a Thomson's Falls terminus to be both a vital necessity to the agricultural area of Laikipia and likely to result in greatly assisting a portion of the pastoral area.

Finally we desire to express our belief in the potentialities of the area surveyed by us, as being capable

of supporting a branch line, and our opinion also that a
document has already been made by the
of the agricultural farms. We
hope precedent of former similar reports
on the line now in actual course of construction
may perhaps be followed.

We propose at the earliest possible opportunity to
submit a report on the area which would be affected by a
branch line to the Gotic country.

W. H. MARTIN,
COMMISSIONER OF LANDS.

ED. [Signature]
DEPUTY DIRECTOR OF AGRICULTURE.

NOV.

that a...
it may be...
for...
of

SUMMARY OF EXISTING AGRICULTURAL DEVELOPMENT.

Alienated land acres.	Area in occupation acres.	Population.		Cultivated areas acres.	Crops.	Livestock.				Saw Mills.	Export tonnage Est. '24.	Forests Govt. & Private acres.	Remarks.	
		European	Indian Native.			Dairy	Oxen.	Sheep	Pigs & Goats.					
339,610	209,910	74	-	2,642	3,938	Wheat-2502 ac. 2460	6293	10679	-	2	3100 of which only 1000 will go to branch line.	9,000.	15,120 ac. available for future cultivation. Additional stock possibilities 20,000 Cattle 150,000 sheep.	
Report. 65,478 Includes 10088 acres Forest Reserves & 5000 ac. surveyed but yet unallotted.	51,123	40	-	522	2,000	Flax, wheat Barley, Maize, etc. unenumerated	742	475	200	120	1	400	10,289	13,100 ac. available for future cultivation. Additional stock possibilities 12,325 Cattle 10,000 sheep.
1,108,231 Includes 182,963 acres Forest Reserve.	380,907	170	6	2,200	2,000	Maize-1000 ac. 8449 Wheat & Barley-990 various -16	8449	53425	180	3	1000	182,963	83,301 ac. available for future cultivation. Additional stock possibilities 19,050 Cattle 244,800 sheep.	
1,953,319	641,637	284	6	5,507	7,944		11651	15217	55202	318	6	2400	211,261	Possible future Railway tonnage. Total 5 yrs. 30,000 tons. 10 " 50,000 " 15 " 70,000 "

THE RAILWAY

THE SON'S BRANCH

PLANS.

NAKURU-NYERI

50.05 THOMSON'S FALLS STATION

D 20' E F 30' G H



Scale 1 Inch to 3.95 Miles
or 1 0/14 Inches to 4 Miles