

1925

E. AFRICA

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From

BRACKENBURY, R.H.

Date

16th May 1925.

REC'D

MAY 21 1925

FOR CIRCULATION :-

No.
By
Mr.

TRANSPORT PROBLEMS IN E.A.

Asst. U.S. of S.

Mr. Brackenbury

Refers to Report of E.A. Commission and in particular to proposed railway from Ngorongoro to north end of Lake Nyasa; states views. Indicates also a means of providing transport for the widely scattered small producers.

Permt. U.S. of S.

Permt. U.S. of S.

Secretary of State

Previous Paper

See M.I. 22285

MINUTES

Mr Brackenbury writes from the office of a firm of mechanical engineers. I suppose he has some invention in view in saving experimental expenditure on vehicles suitable for African tracks.

He seems to me to take too little account of African conditions. From the rubber point of view, hard transport is a cheap method over distances that he can cover in a day or two. For longer distances, Tanganyika seems to be settling down to dry weather roads with motor. The problem of small transport is in fact tending to solve itself where a railway is made suitable either for short distances

Mr Brackenbury's figure for the cost of maintenance are too high, but all events in his case of the Ngorongoro-Nyasa project. I think it cost £7000

Recd 19 May/25

Subsequent Paper

M-I 44134

a mile, the interest would not be more than
£350 a year. And actual maintenance in T.T.
even allowing for a proportion of management costs
is less than £100 a mile, and is tending to
fall as the line is put into order.

But had better push on with the
railways, while I am giving every encouragement
and facility to those who wish to experiment
with new methods of local small transport -

1 May
1890

Since there is something to be said for
ironing to reduce freight & savings to the public, but
my faith is not against the list of railway railways -
The new railways are the result of military expenditure.

My faith is not against the list of railway railways -
The new railways are the result of military expenditure.

Mr Drake's £10000 a mile per annum
is not very far out though on the high side.
I find the average cost in 1913 for Nigeria
& Uganda was for permanent way £190
and for engines etc about £130. If you
add interest on capital about my having
up to £10000 a mile the figure is not very
far out. Truly
W. L. Jones

at once

W. L. Jones

TELEPHONE 3930 VICTORIA
TELEGRAMS, CONCRETE, LONDON.

23159

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RECEIVED MAY 25 1925
15, VICTORIA STREET,
LONDON, S. W.

16th May 1925.

Major Hon. W. G. Ormsby-Gore, M.P.
5, Mansfield Street
W.1.

Dear Mr. Ormsby-Gore,

In the course of the discussion which followed your very interesting paper the other night at the Royal Colonial Institute, you laid particular emphasis on the fact that you invited criticism not only of your paper but also of the report of the East Africa Commission. This must be my excuse for the one or two observations I would like to make on that side of this subject which most interests me, viz - Transport.

I think we are all agreed that the first and most essential step in the development of a transport system in Tropical Africa is the construction of arterial railways. On the other hand we all know that a railway is only a sound economical proposition where the traffic is sufficient to justify the large capital expenditure. It might be worth concentrating for a moment on precisely what the words "adequate traffic" mean.

I believe I am near the truth in stating that a railway in Tropical Africa costs in interest on

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capital and for maintenance the best part of £1000 per mile per annum. This £1000 per mile per annum would cover all expenditure excluding the actual cost of running the trains. That is to say, interest on capital, maintenance of the road in good running condition, replacement of rails and buildings, etc. as required. In fact all the ordinary standing charges as apart from the actual running costs of the railway.

If now 100,000 tons per annum is, on the average, carried over every mile of the Railway, then these charges amount to 2.4 pence per ton mile, to which must be added the actual cost of running the trains - probably another 3d or so per ton mile, making a total charge of 5½d or 6d per ton mile for the carriage of produce and goods, which is, of course, high but not prohibitive. Increase the amount to say 200,000 tons per annum and the cost would no doubt be reduced to 3½d or 4d per ton mile, which is just about the cost per ton mile on the Nigerian Government Railways and the quantities they carry.

On the other hand if you reduce the tonnage very much below that figure to say about 50,000 tons per annum, the cost would probably rise to about 9d per

ton mile. With a further great reduction in volume the costs soon rise until they become prohibitive.

Coming now to the special case of the Railway recommended by the East Africa Commission from Ngerengere to the north end of Lake Nyasa, the distance is something like 400 miles and the annual cost of maintaining such a railway, therefore, will be in the neighbourhood of £400,000 a year. According to the report of the East Africa Commission the population to be served is 500,000 in Northern Nyasaland, 500,000 in North West Rhodesia and 1,000,000 in the Southern part of Tanganyika territory. That is to say in the final analysis, a population of two million is asked to accept a liability of £400,000 per annum. This is a very large burden to place on the shoulders of two million natives, but one which probably they can quite well carry. In order, however, to be able to justify such an action, there are two prior conditions which should be fulfilled: -

- (a) An economic survey should be made of the country by men competent to produce actual facts and figures to shew that the territory to be served by the Railway is capable of raising produce on which the margin of profit is sufficient to pay for the railway. This

point was very cogently put by Sir Frederick Lugard in the course of the discussion and it is also specifically recommended in the Report of the East Africa Commission.

(b) The second point, which I have not seen mentioned elsewhere, is to my mind at least equally important. I think that in common justice each one of these two million natives who is liable for his share of the maintenance of this great cost has a right to be put in such a position that, should he desire to do so, he can make use of the Railway for shipping his own produce out of the country. The point is this: The Railway though 400 miles long is only 3' 6" wide and a person does not have to be situated far from a road or a railway in the tropics for it to be of no more use to him than if it were in the moon. It is sometimes not fully appreciated how much of a man's time is absorbed if he has to carry his produce an appreciable distance to find a market. Assuming that a ton is broken up into 30 head loads and that fourteen miles is a fair average for a day's journey, it would take him more than a year to bring down one ton of produce to a railway 100 miles from his home. In other words if he were to spend half his time carrying

and half producing, the most that he can expect to get down to the Railway is half a ton a year. Now of course, is hopelessly uneconomic. The man should be a producer and not a beast of burden, but this can only come about with the provision of means enabling him to get his produce to the market.

Now a great many people believe that this case can be met by developing a system of macadamised roads. Personally I consider this view to be quite unsound and I can perhaps best bring out my meaning by an illustration. I know one of these so called macadamised roads in Tropical Africa. I will not, at the moment, state precisely where it is, as the last thing one wishes is to have the appearance of attacking or criticising specific individuals or administrations. The road I have in mind is something over 100 miles long and cost £100,000 to build. The interest on £100,000 is £5,000 or £5,000 per annum and the maintenance of such a road will cost at least another £5,000 or £5,000 per annum. In other words, the community, in whose territory that road exists, have to pay £10,000 or £12,000 per annum for the privilege of having it. It is what is known in Africa as a macadamised road. Now the only point of making a macadamised road is to provide a

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passage for wheeled transport: and wheeled transport
in this part of Africa is all mechanical transport.
How many motor lorries traverse this road in a year?
Perhaps 100. It therefore means, that strictly speaking,
every lorry before it starts should have chalked up
against it £100 or £120 as its share of the cost of
the road. Then in addition, there is, of course, the
actual cost of running - perhaps 1/6d per ton mile or
say £8. to £10 for the trip. It is true that it is
only this smaller amount which is paid by the owner of
the lorry, but somebody has to pay the £100-120 and that
somebody is the community at large. In other words
a road of that kind is a strictly unsound financial
proposition. Nor is this an isolated instance. Anyone
really familiar with Tropical Africa could cap my
illustration with others just as striking. The picture
of this vast area of six million square miles covered
with a network of railways and macadamised roads tapping
every fertile valley and plain, is found on examination
to be nothing more than an impracticable dream incapable
of realisation.

Now it might be said that amounts so trivial
as 100 tons a year are not worth bothering about. I
would ask you, however, to consider this. Tropical

7.

Africa is some 3,500 miles across by about 2,000 miles deep. There are no centres in which production is concentrated - nothing to correspond with our Manchester, Birmingham, Sheffield, etc. etc. - On the contrary, the population is very sparse and is comparatively evenly distributed over the whole of this vast area. It is quite impracticable to attempt to concentrate production in certain favoured districts. There are political, racial and tribal considerations which make such a course most undesirable even were it possible and we must, therefore, be content to collect the produce where it suits the native to grow it, rather than to endeavour to compel the native to grow the produce where it would suit us to collect it. 100 tons is a fairly substantial amount for one small village to collect but if you have 100,000 villages peppered over the 4 million square miles of Tropical Africa, each producing 100 tons, the total is indeed imposing and would provide plenty of raw material to keep our factories and mills busy; and, on the other hand, the production of such large quantities in Africa would provide the natives with the means to purchase the manufactured articles of England.

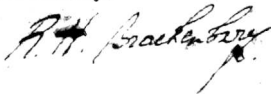
The problem of Africa, as I see it, is the transport of the small amount and not of the large.

Provided the quantities are on a sufficiently big scale, we already have the knowledge and the mechanical means of dealing with their transport satisfactorily. The difficult problem is the economical transportation of small amounts of 100 tons a year or so. That, of course, brings me to the inevitable conclusion that, as it is impracticable for us to provide a close network of roads in Africa capable of bearing transport vehicles on wheels, we are driven seriously to consider the alternative of making vehicles which will pass over the kind of tracks which are likely to be, for many generations to come, the main means of communication throughout Africa. I believe firmly that such vehicles can and indeed are now being produced, but at the same time I do feel that there is still a great deal of pioneer work to be done before these present types become fully developed, adapted and suited to the conditions and environment under which they will have to work in Central Africa. Somebody will have to do this pioneer work, and if it is left to the very limited resources of the manufacturers of this type of vehicle, the development will only take place very slowly. The Empire Cotton Growing Corporation is doing what it

can within the limit of its means to urge forward the solution but something very much larger than this is required. It has been suggested that a small proportion - say 1/2 or 1% of Colonial Loans for Railways might be earmarked for the purpose of helping forward this new system of transport. In view of the fact that when fully developed it would no doubt save millions in unnecessary road and even in Branch Railway construction, it would seem to be a very sound suggestion economically.

However, my real object in writing to you at such length was to develop my main thesis that the giant in the African transport problem is the small amount while the dwarf is the large amount.

Yours sincerely,



RHB/EJP

19th May, 1925.

Dear Mr. Brackenbury.

I am much obliged to you for your interesting letter about East Africa transport questions. The views which you express in your letter I am having put on record for consideration together with other suggestions and comments that I have received in connection with the recommendations of the East Africa Commission.

Yours sincerely,

R. H. BRACKENBURY, ESQ.