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E. AFRICA
KENYA

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X. 1078

Date

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9th January 1926

30 JAN 1926

Centralisation of Research

Encloses copy memo by the Director of Agriculture, commenting on the recommendations of the E.A. Commission.

Paper

MINUTES

7/19/26 Kenya

Mr. Allen

Summaries of replies as to centralisation of research are in 49309. But see answers on that subject in Veterinary Council and opt to overlap (as in Uganda 552213) & ? it will be useful to have a summary of this memo in 49309 also.

Ching

No action called for in this ? 5/1/26

[The memo might be made unimportant by carrying all these papers & then to copies. It should also contain a reference to the list of 21 Jan & the final file copy, and direct that the matter of centralisation of the Ther. Res. Dept should be considered with the Council (standing)]

H. Miller 4/8/26

So proceed! And his views were on
Amazon right to cut on other papers. They
are fringe cases.

[He is unpleasantly vocal.]

W. C. [unclear] 2/28

J. M. G.

1886



1079

GOVERNMENT HOUSE,
NAIROBI,
KENYA.

100 JAN 1926

9th January, 1926

Sir,

In reference to your despatch of the 7th August 1925, in which you desired my comments on the recommendations of the East African Commission as to veterinary research in East Africa, I have the honour to transmit for your information, a copy of a memorandum on this subject to the Director of Agriculture.

2. Since the title of both despatch and memorandum, this Government has accepted its share of the cost of re-opening the Amari Institute and the whole question of Research has been placed on the agenda of the approaching Governors' Conference. I will advise you further of this subject to the extent of the conclusions reached at the Conference.

I have the honour to be,

Your most obedient servant,

Edward Gigg

TRAPLE

L. C. M. S. AMERY, P. C., M. P.,

SECRETARY OF STATE FOR THE COLONIES,

DOWNING STREET, LONDON, W. C.

SENT BY THE DIRECTOR OF AGRICULTURE, KENYA,

on the

"CENTRALIZATION OF RESEARCH"

1. General East African Commission's Report.

I do not doubt but that if the East African Commission had had the opportunity of investigating the matter fully the opinions expressed in the first paragraph of page 84 of their report would not have been given. It contains statements based on inaccurate and inadequate information and could only have been derived from persons whose attitude in the matter is not applicable. I regret that the Commission had not obtained the views of this Department on the matter.

2. No better example could be quoted of the failure of a form of centralized research than the experience of this Colony in the matter of a Central Chemical Laboratory which attempted to perform the whole of the chemical services required by Government. The Chemical services required by the Department of Agriculture constituted the great bulk of the work, but the needs of the other branches of the Department were not or could not be met. It was not a matter of inability of colleagues to co-operate but the failure was due to thoroughly unsound consideration. In agricultural chemical research and experimental work the Chemist alone cannot successfully proceed independently. He has to rely upon the assistance and the advice of other workers in an Agricultural Department, and it is quite impracticable to attempt to secure that cohesion and co-operation which is essential for all the investigators act under one authority. After an exhaustive enquiry the change was made by this Government

Government not long ago and already the benefits are to be seen.

It is a vital question in the successful organisation and administration of state Department services that technical and scientific work connected with the functions of the different Departments should fall under the department responsible for the industry or service. In a properly organised Agricultural Department, responsible for the protection and concerned with the development of the agricultural industry, it is essential that the staff should comprise scientists and technical officers skilled in the many sciences and subjects associated with the industry and with which the Department has to deal. It is entirely a mistake to assume that research workers spend "too great a proportion of their time in routine" work. The records of the work of scientific officers in this Department will improve that. A certain amount of administrative work, almost solely on the technical side, and advisory services are rendered by the staff, and it is well that research workers should do that. Otherwise they would not be able to appreciate and understand important aspects of the problems on which they are engaged.

In this connection I would quote paragraphs 38 to 42 of the Report of Directors of Agriculture upon the re-establishment of the Amari Institute :-

38. Apart from the specific amendments, represented in Estimates B and C to the scheme which the Secretary of State elicited from Sir David Prain, we have only to criticise the proposal, to which we take the strongest possible exception, that the scientific officers of the Departments of Agriculture who are capable of filling the research posts to be created should be transferred to the Institute, thus releasing funds for the Institute by economising on the staffing of the Departments.

39. It should not be assumed that scientific officers in these Departments are appointed solely for research, except in rare cases. In the promotion of agricultural development in a vast country with a small staff, scientific officers are appointed neither primarily for research nor for technical services, but for both according as exigencies demand one or the other.

40. The supposition that the centralisation of research will allow the diverse of research from Departmental services must be met by strongly resisted. Again it must be realised that these are vast, raw countries, embracing considerable variety in natural conditions and therefore in plant and insect life, a variety which the Institute will not be able to provide for that class of investigation in which natural conditions form a fundamental and inseparable factor of the problem under enquiry. Neither will the Institute have a staff of such dimensions in each branch of its researches that it will be able to meet all calls for local investigation in the five Dependencies. The distances which separate Amani from large and important agricultural areas in the Dependencies, where communications are most unfavourable, would render impracticable the exclusion of research from the functions of Agricultural Departments even if there were no other objections. The expense of conducting research at such distant points with Officers from a central Institute, the waste of time involved in travelling and the delay in urgent matters likely to be incurred would prove most costly.

The proposal to transfer the Chemical Department, Kenya, to Amani is considered to be wholly impracticable. The Chemical services including research are such that the Laboratory and staff at Nairobi must be maintained.

41. The separation of research from routine or technical work in agricultural service within the Department, on the other hand, is a principle which cannot but have our full acknowledgement. It is one, however, which must wait upon the provision of means to bring it into practice. In the case of these Departments, this can only come through a larger staff of agricultural officers trained, in higher degree than at present, to the performance of those technical services now directed and so largely carried out by the scientific staff; nay, as Sir David Prain proposes, by the sacrifice of the scientific officer to the central Institute and his replacement by the agriculturist, for the scientist would still be required, and would then be released, for full time investigational work on those local problems beyond the resources of a central Institute to deal with. Under existing conditions, not within the power of Departments to alter, technical duties, consisting principally of scientific determinations, advisory and economic services, and only to a small extent of routine administration, are inseparable from the functions of scientific officers in the Departments. Opportunity for research is not denied when it presents itself. In the Kenya Colony, particularly, as the achievements of the scientific officers will show, every encouragement is given to research by these officers, and facilities, as satisfactory as circumstances will allow, are provided. In the other Dependencies, though the smaller staff do not permit of such frequent opportunities, this condition may be expected to improve in the ordinary course of development, as better provision is made for the Departments of Agriculture.

42. It would appear that there will always be an important field for local research in the Dependencies. There would be an equally important field for central botanical research at Amani, supplementing and in a measure co-ordinating the investigations of the Departments, with all those advantages of economy, continuity and absence of restraint claimed by Sir David Prain for centralisation.

5. A few examples may be quoted to show the importance and necessity of conducting research where the problem exists, and I need only quote a few examples of work at present being undertaken by this Department:-

(a) Coffee "Bealy Bug" - this pest can only be investigated in its own environment where it is associated with many other forms of insect life, and where cultural conditions also play an important part. The investigation demands the attention not only of Entomologists, but of the Chemist and the Coffee Officer.

(b) Coffee Berry Disease - a fungoid attack which again can only be dealt with successfully in situ - and again besides the Mycologist, other scientific officers are concerned in the investigation.

(c) "Rust" in Wheat - plant breeding, and mycological studies must necessarily be carried out not only in one area in the Colony growing the crop, but as conditions and the behaviour of the varieties of the crop vary in different districts, investigations have to be carried out in comparatively small areas.

(d) Soil fertility problems - in these cases not only has laboratory work to be performed but the soil and cultural conditions have to be studied closely and experiments made in the locality and on the crops concerned. Here again the work is not confined to one scientific officer - the Agricultural Chemist requires the assistance of the Agriculturist.

Again in connection with all these investigations economic and administrative questions arise which need the attention of the Director.

It will therefore be apparent that to generalize research work completely and to divorce it from its territorial basis and application is thoroughly unsound and the interests of the community will not thereby be served.

6. The kind of centralisation of research to be attended with the best results is that already achieved in this Department, where under the same roof and using the same grounds there is a grouping of officers engaged in Chemical, Entomological, Mycological, and Plant breeding work. Mutual support and assistance, together with opportunities for consultation is thus assured, and economy is effected in laboratory maintenance.

Future development in East Africa may point to the need and wisdom of specialisation in research applicable to special forms of production and industry, e.g. Uganda might specialise in Cotton Research, and Kenya in Maise and Coffee and so on, but that does not appear to be the kind of centralisation indicated in the Report under review.

7. While fully recognising the fundamental importance and value of research work along the lines of pure science, it should be remembered that Colonies and Dependencies in the process of development and with slender financial resources must find an economic defence for the scientific work undertaken and a Department of Agriculture has to face the needs and demands of the public and the problems of the field daily.

8. Having now stated the case from the point of view of the needs of a Department serving the needs of one Colony I would deal with some aspects of the reference as it relates to "Amani".

That Institute can fill an important place in a scheme designed to develop the agricultural resources of Eastern Africa and a great opportunity awaits its re-establishment. But it will surely fail in its purpose if its effort is not directed along those lines for which the Institute and the property is suited. It should be recognised that its resources do not render it suitable as an Institute dealing with general agriculture and in no way can it be regarded

as suitable for Veterinary Research. To illustrate what I mean I would explain that the most important economic crops of Kenya could not be successfully grown on the property and its pastoral conditions are wholly unsuited to stock, which must be maintained in considerable numbers at a Veterinary Research Institute.

In my opinion it is not necessary to introduce the term "Central Research" in connection with "Amani", rather should the activities and functions of that Institute be regarded as supplementary and complementary to the work of the staff of existing organisations.

I would now quote from the Report on "Amani" previously referred to, and although written nearly four years ago, I believe that the signatories to it would still subscribe to its most important recommendations.

13. We are convinced that the situation of the Institute and the natural conditions which exist there, as well as its facilities, present and potential, are adapted to no other purpose, if the Institute is to serve usefully the whole of the Dependencies, than that of research in applied botanical science and its associated branches. We are agreed, on the other hand, that for this purpose the Institute may well prove to be a most valuable asset to the Dependencies and that no effort should be spared to prevent its abandonment, or surrender, or its use for any other purpose.

14. To serve fully the function thus intended, the Institute should possess a scientific staff comprising the following branches:-

- Economic and Systematic Botany.
- Plant Pathology.
- Plant Physiology.
- Plant Chemistry.
- Plant Breeding.
- Entomology.
- Forestry Research.

18. The designation of the Institute should be "The Amani Research Institute".

19. The administration of the Institute should be independent of the Agricultural Departments of the Dependencies, but as local responsibility cannot be avoided, the Institute should for this purpose fall under the administration of the Chief Secretary to the Government of Tanganyika Territory.

20. For the examination of professional matters not purely domestic to the Institute, but affecting the Departments of Agriculture, the Directors of Agriculture should form a Board to confer thereon with the Director of the Institute. The Chief Secretary to the Tanganyika Government should make arrangements for this conference to be held yearly at

that Institute, at a time suitable for the review of the annual estimates of expenditure. This Board should have no power to order the affairs of the Institute or to amend the estimates, but should submit to the Chief Secretary a report of its visit of inspection together with its criticisms or recommendations as well as its approval of the estimates or its amendments thereto.

"31. The Director of the Institute should prepare a quarterly as well as an annual report on the work of the Institute for submission to the Chief Secretary and to the Directors of Agriculture at the same time.

"32. No part of the services of the Institute should be devoted to a purpose not embraced by the agricultural interests of the Dependencies or to any study or investigation which may have a purely scientific without an economic importance.

"36. Whenever a scientific officer of a Department of Agriculture is not available for an important and urgent local investigation, the services of an officer of the Institute should be made available therefor as far as his work at the Institute may permit.

"37. The Director should arrange for occasional conferences at the Institute of the scientific officers of the Departments of Agriculture with his own staff, separately for each branch of scientific work. The members of his staff should also be permitted to pay occasional visits to the Dependencies for examination of the scientific work of the Departments, and for any scientific enquiry."

On the financial side, the following observations were made

in the report:-

"25. Recurrent Expenditure. It is assumed that the substantial contributions from the Colonial Research Committee intimated in the Secretary of State's original despatch will take the form of an annual grant. We do not expect of such substantial assistance that the Institute is not likely to suffer from the financial stringency likely to obtain in these Dependencies for a considerable time to come, this grant should amount to at least twenty five per cent of the annual recurrent expenditure. The remaining seventy five per cent should be borne by the Dependencies in the following proportion, to be revised at the end of two years:-

Tanganyika Territory	...	20 per cent.
Kanya Colony	...	17½ per cent.
Uganda Protectorate	...	15 per cent.
Nyasaland Protectorate	...	10 per cent.
Zanzibar Protectorate	...	7½ per cent.

Capital Expenditure.

"26. We fear that the Governments of the Dependencies may find it necessary to express their inability to meet the heavy charges under capital expenditure. Sir David Frazer probably had this obstacle to the establishment of the Institute in mind, as well as the benefit which the Institute is expected to bring to Imperial interests, when he suggested that this expenditure should be met from Imperial funds. It is hoped that this suggestion will be favourably received. We would observe that the Empire Cotton Growing Corporation may with justification be invited to subscribe towards the capital expenditure,

For it is intended that part of the services of the Institute should be devoted to the cotton industry of East Africa.

"27. Should the Secretary of State find it unavoidable that the burden of the capital expenditure, in addition to seventy five per cent of the recurrent expenditure, should be borne by the Governments of the Dependencies, the scheme would be restricted, we fear, in its initiation, and delayed in any possible future extension, with a regrettable effect meanwhile upon the economy of expenditure on services in proportion to maintenance and upon the worth of the Institute to the Dependencies."

In those recommendations there is embodied arrangements for the different territories interested to keep in touch with the work at "mani". Thereby the co-ordination of effort and prevention of unnecessary overlapping would receive attention. Again the agricultural, entomological and zoological conferences for which arrangements are now being made, together with the Cotton conference, ^{proposed} to be held periodically in Uganda, will all assist materially in strengthening the bonds between scientific and technical officers in Agricultural Departments.

With regard to the "Centralisation of Veterinary Research" there exists at hand the opportunity of recognising a Veterinary Research Laboratory at Kabete which is the best equipped Institute of its kind in the Crown Colonies, and one for the service of Eastern Africa.

In this connection I would quote from my minute No. 104/18 of 15th March 1920:-

"I am of opinion that the requirements can best be met by the establishment of a Central Laboratory for Higher Veterinary Research fully equipped and staffed by the most competent Research Officers obtainable. It should deal chiefly with the investigation of diseases of primary and economic importance, for the most part common to the areas under consideration. Other laboratories should be established in the different territories for the diagnosis of diseases, for the production of sera and vaccines, etc., and for research

research work on localised diseases demanding suitable conditions for investigation not to be found at the Central Laboratory.

(e) Until a Central Laboratory such as that proposed be recognised it is feared that money may be wasted, in so far as each Administration may act independently, resulting in duplication of effort. Further, a difficulty would be found in securing Officers possessing high scientific attainments, and, if an attempt were made to establish a number of Laboratories quite independent of each other, it is unlikely that they would be staffed and equipped so well as the Central Laboratory proposed.

(f) I would suggest that the Administrations of the territories outside the one where the Central Laboratory is located should make a contribution towards its maintenance, That arrangement would associate them in the work, and the necessary general direction of effort and prevention of overlapping would be achieved through the Conferences previously suggested."

To a marked degree the Kabete Laboratory has for a long time past been carrying out research work and services of value to Eastern Africa, e.g. Researches on Rinderpest, pleuro-pneumonia, East Coast Fever, etc., to name only the more serious stock diseases, also on the production of sera and vaccines.

It only remains for the different countries to make contributions to the cost of its enlargement, an increase of staff and its upkeep to enable it further to extend its services for the benefit of all the Dependencies. Here again contact/

contact and co-operation can and should be secured through periodic Veterinary Conferences attended by the Chief Veterinary Officers and Chief Veterinary Research Officers of the different countries.

Before leaving this matter of Veterinary work I desire to remark upon the reference on page 84 of the East African Commission's Report. I submit it is no part of the proper function of a Veterinary Department to deal with "breeding experiments", that belongs to "animal husbandry" a subject in which Veterinary Officers seldom receive an adequate training and within which Veterinary services are embraced in other countries where services of this kind are properly organised.

12. In its bearing upon research work generally and the need for means of publishing results not only for the information of the community but for the benefit of scientific workers I would mention that I have included in the Agenda of the forthcoming Agricultural Conference a proposal to start an "East African Agricultural Journal", to the cost of which it is hoped that each territory will contribute. That cost should not be great. In my opinion none of the East African territories is to-day in a position to maintain periodic issues of the standard desired, but sufficient material should be forthcoming chiefly from the several Departments to enable a Journal, worthy to hold its place among other like literature, to be published and it would be an invaluable means of disseminating knowledge.

13. There would appear to be some risk that agricultural research work in Eastern Africa and its relationship to work to be performed at "Amani" may not be organised and provided for along sound lines and I would therefore recommend that in order to avoid mistakes, the advice of an authority upon the organisation and administration of such services be sought before any attempt be made to upset existing organisations, also to advise the Secretary of State and the different/

different Governments thereon and at the same time to deal with the re-establishment of the "Amami Institute", its functions, staff, equipment, &c.

If the services of Sir Daniel Hall, Scientific Advisor to the Ministry of Agriculture, or of Mr P. B. Smith, C.M.G. (late Secretary for Agriculture of the Union of South Africa) now of Downing College, Cambridge - men who are recognised and wide authorities - could be obtained, I feel sure that their advice would prove most valuable at this juncture. I would add that in my view the choice of an Advisor should not fall upon one who is a Scientist only, however distinguished he may be, I consider it essential that he should have had experience in the organisation and administration of agricultural services.

If it is considered that the appointment of the "Director of Amami" could be made in advance a great advantage would be gained by the opportunity which he would have of conferring with the Advisor on the visit of the latter. On the other hand, if that appointment be deferred, the Advisor would be of great assistance in choosing the right man for that important post, upon whom the success or failure of Amami will so largely depend.

Sd. Alan Hall

DIRECTOR OF AGRICULTURE.