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The Amani Research Institute.

THE announcement made in the House of Commons on June 10 by the Hon. W. Ormsby-Gore, Under-Secretary of State for the Colonies, that early steps are to be taken for the establishment of the Amani Institute in Tanganyika Territory and for its upkeep as a centre of scientific agricultural research for the benefit, first, of the British East African dependencies, and secondly, of tropical economic development generally, is a very welcome one, for which we have long been waiting.

The Amani Institute was founded by Germany in 1902. The Institute is situated in the Eastern Usumbara Mountains, about thirty miles from the port of Tanga, and is approached by railway as far as Sigi or by a good motor road. The main buildings, including the laboratories and most of the residences, are situated in a group at a height of about 3000 feet. The Institute grounds comprise some 600 acres, 200 acres of which are under cultivation and the rest are virgin forest. As the mean annual temperature at Amani is 67.8° F. and the average rainfall is 55 inches, the climate is very pleasant; it is a healthy place and very free from mosquitoes. The buildings consist of several residences and very good and well-fitted chemical, botanical and zoological laboratories, together with a herbarium and library and the various garden buildings. A full description of the Institute has been given in the *Berichte über Land- und Forstwirtschaft*, Band II., and in the *Jahresbericht des Biologischen Landwirtschaftlichen Instituts Amani* for the year ending March 1914. These records, with their accompanying plans, show that the Institute was designed on a scale more nearly appropriate to the needs of a territory, such as that it was intended to serve, than anything provided by the Government of a British Crown Colony.

The work carried out by the Institute while in German hands was of a very valuable character, for there was developed an admirable scientific establishment devoted to the intensive study of the problems connected with vegetable physiology, both on the nutritive and the genetic side, on the fungal and insect aspects of plant pathology, and also with regard to the chemistry of soils and of plants.

In establishing the Institute at Amani, Germany had created a research station comparable to the corresponding Institute at Pusa in India, to which India owes so much, and to the Institute at Buitenzorg in Java, which has so long served the Dutch East Indies as a central station for the study of the many problems in tropical agriculture in the East. Amani during its period of activity under German management showed that it was a worthy rival both of Pusa and Buitenzorg, and, had it been allowed to continue as it was begun, it would no doubt have been able to confer

benefits on eastern tropical Africa as great as those which already stand to the credit of the Indian and Javan establishments.

Ever since the Tanganyika Territory came into British hands, however, the Amani Institute has been in a very uncared-for condition. For the first few years a director was in charge of the establishment, but as he had no officers working under him his duties were rather those of a caretaker than a director, and it was not possible for scientific work of any value to be done there at all, especially as he had to see to the proper care of the valuable instruments, books and specimens in the laboratories. In addition to the Director there has been a head gardener or Curator, who has been responsible for the plantations and for all the gardening work. These two officers have been in sole charge of the Institute. Since the retirement of the Director, the Curator has been the only European at Amani; and it is satisfactory to know that he has maintained the Institute and the grounds, and has been given the necessary help to look after the herbarium collections.

Amani properly constituted would serve not only as a centre for research, but also would be a valuable place to which the scientific workers attached to the Departments of Agriculture could go in connexion with the various problems confronting them in the several departments, while research officers at Amani would be engaged in working out the problems brought to their notice by the agricultural officers throughout these Colonies.

Another point of great value in such a place as Amani would be that scientific workers from home and from other parts of the Empire would be able to work at the Institute on scientific problems, as was the case in the past, and in the same way that botanists and other scientific officers are now able to carry out their researches at Pusa or Buitenzorg.

The matter of the re-establishment of Amani has, we believe, been under consideration at the Colonial Office for some years, and it seems unfortunate that instead of taking direct action from home, the various Colonies have been consulted as to whether or not they considered Amani would be of any value to them. Amani should be essentially an Imperial rather than a local institution, and it should be so maintained and extended as to serve as an agricultural research institute for the conjoint benefit of all the British Colonies and Protectorates in East Africa. In order that the Institute should fulfil its functions in the best possible manner, it should be independent of the control of any Department of Agriculture in these Colonies and Protectorates.

The potential value of Amani to the East African dependencies is immense, and it is essential that the Institute should be placed on a proper basis with as little delay as possible.

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The Protection of Wild Birds.

TWO years ago Viscount Grey of Fallodon introduced a Bill on this subject in the House of Lords, as was noticed in these pages at the time, but the measure did not succeed in becoming law before the dissolution. In the present Parliament a Bill has been introduced by the Home Secretary and at present awaits a second reading in the House of Commons. The new Bill closely resembles its predecessor, although the drafting and arrangement have been improved, and it likewise aims at giving effect to recommendations of the Departmental Committee which reported in 1919. It is intended to supersede all the existing legislation on its particular aspect of the subject, apart from the special Game Laws, and to secure uniformity, simplification, and greater effectiveness.

The Bill gives some general protection to all birds by the total prohibition of certain methods of destruction and capture involving obvious cruelty. Bird-catching is to be strictly regulated, and prohibited on Sundays throughout the year, and on highways and commons at all times. In addition, special protection is given to different species according to three categories into which all birds are for this purpose to be divided. Birds named in the first category, with their nests and eggs, are to be protected absolutely at all times. Birds named in the second category, with their nests and eggs, are to be protected absolutely during the close season. The third category comprises all other species; these, but not their nests and eggs, are to be protected during the close season except against the owner or occupier of the land and his agents. (The protection of nests is a useful innovation.) The general close season is from March 1 to August 11. The woodcock has a special close season from February 1 to August 31, and the nests and eggs of the lapwing are not protected against the owners and occupiers of the land before April 15.

The Home Secretary, and in Scotland the Secretary for Scotland, is to have power to vary the classification or the close season of any bird, either generally or locally. In particular, he has power to give the status of Category I. to all birds in any bird sanctuary; but he may make exceptions, which is a wise provision in view of the fact that the undue multiplication of a common aggressive species may be at the expense of the others which it is desired to protect. He may also grant exempting licences for scientific purposes. This is a useful provision, but care will be needed to discriminate between genuine investigators and the type of collector, especially of eggs, who levies special toll on rare species and does nothing to increase ornithological knowledge.