

GOLD COAST DEPARTMENT OF SOIL AND LAND-USE SURVEY

FURTHER OBSERVATIONS ON ESTATE AGRICULTURE  
AND THE INTEGRATION OF PEASANT FARMING  
WITH SPECIAL REFERENCE TO  
AGRICULTURAL EDUCATION

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In my first paper on the subject of Estate Agriculture and the Integration of Peasant Farming when dealing with the subject of estates only large-scale estates were considered such as would need to be run by a public corporation or a private firm employing administrative staff and, at times at least, a considerable labour force. I consider that there is a distinct place in the agricultural economy for an individually-owned and individually-run estate, or large farm, intermediate in size between the extensive capitalist enterprise and the small peasant holding; say for farms ranging from fifty to one hundred and fifty acres in size that could be run by the owner, or occupier, and his family and a few hired hands, some permanent and others seasonal.

2. There are a number of reasons why farms of this character are needed and it will be noted that holdings of the size suggested predominate in the advanced agricultural economies of both Western Europe and North America. The reasons are that, with certain obvious exceptions, agriculture, if it is to be successful, is an individualist enterprise requiring an intimate knowledge of soil conditions on the area cultivated and a form of control that can react without delay to the vagaries of weather, pests, diseases and market conditions; this is particularly so where diversified cropping and mixed husbandry are practised. Whilst there is an upper limit to the amount of land that can be cultivated under individual control there is a lower limit to the area that can be personally worked if any degree of agricultural progress is to be achieved. The

smaller the holding the smaller the returns and the smaller the degree of education that the cultivator will possess. The optimum size of holding will be one that whilst allowing for close individual control will at the same time be large enough to provide a sufficient return to allow the owner and his family to acquire an education adequate to understand the findings of scientific and technical investigations and to be able to put them into effect personally with the minimum of official aid. The owner of such a holding should, too, be a man of sufficient education to appreciate what problems would repay enquiry and to co-operate in their investigation.

3. It was from amongst the practitioners of this scale of farming that the highly-developed agriculture of western civilization has been built up.

4. It is exceedingly difficult to envisage innumerable peasant farmers each tending a few scattered, ephemeral 'farms' of an acre or so and assisted in all technical matters, even the most simple, by hosts of various grades of technical officials ever being able to progress very far or to provide the basis for the standard of living that the Gold Coast people consider their right. Even various forms of group, or integrated, farming are little real improvement on this. Such systems of organization seem to have a lot in common with the symbiosis between mealy bugs and their attendant ants! Something better needs to be aimed at than this, if the political organization, social services and public utilities of a modern, independent state are to be maintained.

5. The chief value of group or integrated peasant farming, in my opinion, is that they can be employed to foster the development of sizeable, individually-run and-owned holdings worked by men of sufficient education and understanding to take advantage of technical developments and to assist in their discovery.

6. It would be natural to expect, as a consequence of the impact of western civilization on the Gold Coast, that some degree of development of medium-size farms would have already taken place and it would be useful to know

whether this is so or not. I suggest, therefore, that a preliminary survey be carried out in order to discover what varying forms of agricultural organization occur in the country at the present time and to determine what present tendencies are. I further suggest that this preliminary survey be followed by an examination of the economics of Gold Coast agriculture, particularly from the organizational view point, much on the lines of the Lewis investigation into the possibilities of industrialization. If possible, such an investigation should be carried out by an expert who has passed beyond the philosophy of Rousseauism and is interested in the possibilities of the Gold Coast as a modern independent state relying for the maintenance of its economy very largely upon agricultural production.

7. Should these surveys show that the medium-size farm individually-worked is already in existence and the concept spreading, the movement should be encouraged by all means available. Should there prove to be no spontaneous tendency towards this form of agricultural organization, then it should be initiated. This could be done in several ways: by the establishment of demonstration farms by Government ... a procedure that is not considered likely to be very fruitful; by the use of similar farms for teaching the business of agriculture ... a matter to be dealt with below; by the setting up of corporation estates to lay out land to the best advantage and when more or less complete production has been realized along these lines to divide the estates up into suitable medium-size farms to be worked by trained owners; and by the invitation of foreigners, e.g. Italians, to set up medium-size farms with Government control and assistance ... a process which it is hoped would operate in a manner analogous to 'seeding' a super-saturated solution.

8. It is my opinion that the agricultural services should concentrate on the encouragement and welfare of such medium-size farms leaving the inchoate peasant organization alone excepting to maintain as far as possible such phytosanitary controls needed to prevent the spread of pests and diseases to more advanced forms of agriculture.

(It is assumed that where large public or private estates are concerned these will maintain their own individual or collective technical services.)

9. The type of medium-size farm suggested would need modification of the prevailing modes of land tenure and the customary procedures of land inheritance. These are changing anyhow and legal authorities should encourage changes conducive to the spread and development of medium-size farms.

10. As in the case of the Lewis enquiry, the investigation proposed would come up against the question of management. Management it is obvious is at the foundation of all future progress in the Gold Coast: politico-social and industrial as well as agricultural. Training in management is thus truly important. The success of medium-size farms depends in the first place upon the development of techniques and traditions of management. In Europe and America training in agricultural management is provided at colleges and institutions but in the Gold Coast this aspect of agricultural education does not appear to be receiving the attention a matter of such primary importance demands. Agricultural education at present aims at the turning out of agronomists of various grades ... officers trained in the science of crop production rather than of farmers versed in the business of crop production. The teaching of management requires an institutional farm run for that specific purpose.

11. In the Gold Coast, college farms tend to be largely if not whollyly research or experimental stations. Inadequate attention is given to farms designed to teach business management. Such a farm wants to be run, under supervision, entirely as a business proposition by an individual of the type and class who could reasonably be expected to own and run one solely as means of livelihood and not by an expatriate on a cost-accountancy basis which excludes the cost of his salary and various allowances. No farm of the size envisaged could, at present, support such an owner or manager and this introduces an element of such artificiality that it destroys the whole value of the farm.

12. Very considerable difficulties can be anticipated in setting up and running a farm of the type needed. Firstly, it is sure to be found that agricultural knowledge and experience are not wholly sufficient for the purpose and there will be a tendency for it to become in effect experimental. This should be strenuously avoided. Cropping and working systems must be elaborated on the basis of practices known to be successful locally and these should be patiently adhered to until experience counsels modification. The farm for inculcating the principles and practice of management could not, for example, be run as a mechanized concern at present since this would mean the employment of artificial fertilizers and profitable methods of using these on local crops have not yet been worked out.

13. In the forest region the sort of 100 acre farm that could be used to teach the theory and practice of management might have a composition approximately as follows:-

- 40 acres. Food farms and fallow land; producing maize, cocoyams, cassava, plantains/bananas. (For subsistence of farmer and family and permanent labourers. Surplus for sale.)
- 20 acres. African vegetables and fallow land; producing okros, tomatoes, egg plants, groundnuts, peppers, etc. (Predominately for sale.)
- 20 acres. Cocoa. (For export).
- 5 acres. Rice and short fallow. )
- 5 acres. Sugarcane. ) in wet bottoms (Mainly for sale)
- 1-2 acres. Oilpalms. (Mainly for subsistence)
- 1 acre. Mixed fruit trees; oranges, coconuts, Avocado pears, mangoes etc. (Mainly for subsistence).
- 1 acre. Mixed timber for farm purposes; mostly quick-growing, light-demanding trees. On areas of rocky or shallow soil.
- 5+ acres. Pasture: to support sheep, goats and fowls together with farm wastes. (Mainly for subsistence).
- 1-2 acres. Buildings: Farmer's compound, labourers' quarters, stores, etc.

14. The crops grown would be produced by the customary methods that are known to be economic. However, as profitable methods were worked out for the use of mechanical implements together with artificial fertilizers these would be adopted, the fallows cut down and a greater area put under tree crops such as cocoa and under annual or semi-perennial food crops for sale.

15. Fuel would be provided by the bush fallows and some of this would be marketed. As much as possible of the building materials needed would be supplied by the farm.

16. Maintenance of fertility on a farm of the type described would in the first place be as follows : On Food farm and African vegetable farm areas the maintenance of fertility would be by bush fallowing. The cocoa land would have its fertility maintained by annual dressings of artificial farmyard manure activated in part by animal excreta and in part by artificial fertilizers. Oil palm and mixed fruit-tree areas would be situated near compounds and receive household wastes etc. The sugarcane and rice land of the bottoms would be largely manured by alluviation aided by short fallows. The pasture land would be maintained in condition by feeding stock on it with crop residues etc.

17. Besides the farmer and his family a small permanent labour force would be maintained and casual and seasonal labour engaged where necessary.

18. A diversified farm such as outlined would provide abundant scope for the study of the business side of farming: accounting, marketing, road building and maintenance, small-building construction, management of labour etc. etc.

19. The cash returns from such a farm after payment of labour, transport and other costs should be, when fully developed, in the range of £250-£500 per annum. Whilst the farmer would, in addition, provide himself and his family with food and fuel. Such returns it is considered would be sufficient to ensure that the farmer would be of the type that would understand and avail himself of technical developments.

20. In choosing a manager for an institutional farm of the sort described it would probably be better to engage a local man who had commercial training and experience rather than an official agriculturalist. What is needed are business outlook and techniques; farming methods of the type to be initially adopted would quite likely be familiar to such a man since the Gold Coast has travelled but a very short distance from a peasant community and, if they were not, his labourers would supply the necessary information. In any case he would be working under the supervision of a professional agriculturist.

21. An institutional farm with the crop diversification described would in addition to providing scope for initiation into managerial practices give ample opportunity for tuition in agronomy. Eighteen crop plants besides grasses, fallow-land shrubs and timber trees are mentioned in the description already given. Any others that a West African course for practical agriculturists might contain, e.g. rubber, could be dealt with on visits to particular agricultural enterprises and stations.

22. The farm outlined is sufficiently general in organization, as far as the forest region is concerned, to allow of modification by the graduate agriculturalist according to the possibilities of the part of the country in which he finds work or sets up in business.

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