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AGRICULTURAL EXTENSION SERVICE

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**DD. Henry  
I.E. Johnson**

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- No. I - 1. Fritz Andrew Sibbles, "Basic Agricultural Information on Jamaica Internal Document of Work" January, 1977.
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- No. I - 9. IICA and MoAJ "Hillside Farming Technology - Intensive Short Course", Vols. I and II, March, 1978.
- No. I - 10. Jose Emilio Araujo, "The Theory Behind the Community Enterprise-Seminar in Jamaica", March. 1978.

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- No. I - II. Marie Strachan, "A National Programme for the Development of Hillside Farming in Jamaica", April, 1978.
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- No. I - 13. Neville Farquharson, "Production and Marketing of Yams in Allsides and Christiana", May, 1978.
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- No. I - 15. IICA - IDB "Course in Preparation and Evaluation of Agricultural Projects", Vols. I and II, November, 1977.
- No. I - 16. Neville Farquharson, "Production and Marketing of Dasheen in Allsides and Christiana", June, 1978.

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- II - 1. O. Arboldea-Sepulveda (IICA-CIDIA), "Agricultural Documentation and Information Network in Jamaica" (Elements for a Proposal)
- II - 2. Victor Quiroga, "National Agricultural Information System" (NAIS - Jamaica) Project Profile, September, 1978.
- II - 3. Joseph S. Johnson "A Review on Land Reform in Jamaica for the Period 1972-1978" September, 1978
- II - 4. Neville Farquharson, "ABC of Vegetable Farming" A Draft High School Textbook. Volumes I, II, III and IV February, 1979



II - 5. Jerry La Gra "Elements of an Agricultural Marketing Strategy for Jamaica", March 1979.

II - 6. D. D. Henry and I.E. Johnson "Agricultural Extension Service in Jamaica" March 1979.

## P R E F A C E

The IICA/Jamaica Office is pleased to release this publication, which is the second in the second year of its series "Agriculture in Jamaica".

This publication, titled 'Agricultural Extension Service in Jamaica' should be particularly useful to anyone who is involved in Jamaica's agricultural development. The historical development of the Extension Service will assist the reader in evaluating the organizational efforts of extension, as well as the normative targets as envisaged by different Ministers of Agriculture.

The co-authors of this publication are Mr. D. Daniel Henry and Dr. I. E. Johnson.

Mr. Henry has served Agriculture in Jamaica over the last 30 years. He obtained a Diploma from the Jamaica School of Agriculture in 1949 and after several years in the field resumed academic studies. He obtained the B.Sc. and M.Sc. degrees in 1956 and 1958 respectively. His post graduate degree was awarded by Cornell University, Ithaca, New York, in the areas of Agronomy and Plant Physiology.

Mr. Henry received additional training in Communications and in Supervision and Administration at the University of the West Indies, Extension Methods in Israel, 1974, and Project Management in the Ministry of the Public Service, Jamaica, 1978. He was also the recipient of an award by Dr. Jose Emilio Araujo, Director General of IICA, which enabled him to pursue studies at CATIE, Turrialba, Costa Rica, in the areas of Systems of Production and Transfer of Technology. His experience in the field of Extension Services makes him a most suitable person to co-author this paper.

Dr. Irving E. Johnson has been Agricultural Economist in the IICA/Jamaica Office since September, 1978. He recently retired from the Ministry of Agriculture after 36 years professional service in the field of Agriculture. He is the 1937 Agricultural Scholar for Jamaica. His training includes a Diploma of the Imperial College of Tropical Agriculture (Trinidad, W.I.); a M.Sc. degree in Agronomy and Rural Education, Cornell, 1951, and a Ph.D. in Agr. Econ. Cornell, 1961. In addition, he is a Fellow of the Economic Development Institute (FEDI) of the IBRD. His many important assignments in the Ministry of Agriculture included those of Principal, Jamaica School of Agriculture (which he served for a period of 15 years and was its Principal for 6 years); Head of the Agricultural Economics Department; Director, Agricultural Planning Unit and Chief Technical Officer.

Dr. Percy Aitken-Soux  
Director,  
IICA Office in Jamaica.

## INTRODUCTION

Unlike other areas of agricultural endeavours, relatively little has been written on a structured basis on the Extension Services in Jamaica. According to the records, formal Agricultural Extension began here in 1895. However, there are indications that prior to this date there existed a number of elements of what is now regarded as Agricultural Extension.

The purpose of this paper is to bring together the salient fragments of available information into one composite and comprehensive whole with a view to providing a record of the important features of the evolution of the Extension Services on a step-by-step basis. It is largely a historical presentation and as such is also intended to present a catalogue of what has been tried and the measure of success achieved. More importantly it should serve as a guide to those who wish to carry out further and more detailed studies in this area.

The fact that relatively little has been documented apart from the volumes of minutes of the Jamaica Agricultural Society, which was founded in 1895 means that the Bibliography itself has been rather limited for the preparation of the kind of paper intended. Researchers may avail themselves of an opportunity to use records in the archives of the Institute of Jamaica which make rather peripheral references to agricultural extension, a term which was not known at that time, but which also tends to treat the terms Jamaica Agricultural Society and the Extension Services interchangeably. The purpose of this paper is to deal with Agricultural Extension Services. It will therefore be necessary to separate, where possible, the Agricultural Extension Services, per se, from the operations of the Society, for the period 1897 - 1951.

After examining such records as are available, it has been thought prudent to divide the period since the initiation of the programme into a number of arbitrary divisions. Other writers undoubtedly may wish to use a different break-down. However, it is the belief that the main issues would not be lost in spite of such modifications.

PERIOD 1, 1895 - 1951

Agricultural Extension Services of Jamaica began on a formal basis in 1895. In that year some of the fragments of what today is regarded as extension work were first brought together on a structured basis. It is evident that these fragments had been in existence for some time before, but that they had not yet been graced with the term "extension work".

The period 1895 to 1951 coincides with the formation, initiation and development of the Jamaica Agricultural Society (JAS). Indeed, at some time during that period the terms Jamaica Agricultural Society and Extension Services came to be used synonymously. It should be recalled in analysing what took place during the greater part of that period that globally agricultural extension on a structured basis constituted a relatively new area of endeavour. This first period of review deliberately covers that for which the JAS held sway.

Although the period is a very long one, it can be sub-divided into smaller periods during which certain emphases were made and development of different types were observed. The first two decades were largely devoted to exploration of how to develop and implement a system which would meet the original objectives for creating the JAS, and to discharge the functions associated with those objectives.

The functions were phrased in rather broad terms, much along the lines of those set for many similar organisations at that time. They are listed thus:

- (i) to collect and disseminate useful agricultural information among farmers;
- (ii) to encourage the improved cultivation of crops and the rearing of better breeds of livestock;
- (iii) to watch over the interests of the Agricultural Industry generally.

The formation of the JAS started what was to expand into a programme or system designed to assist farmers in the wide range of areas implicit in the functions listed above. Essentially, and most importantly, farmers had

come together in association to provide the services, inputs and also a forum for dealing with their own affairs. Actually, the third listed function is so broad in scope that it is indeed difficult to imagine anything which could not be included for action by the Society. It should also be observed that the farmers involved in this project at that time were largely, if not completely, the landed gentry. Many of these had ties with other associations such as the Jamaica Horticultural Society. Indeed the status of the Society may be gleaned from the fact that the Governor was the President and the Vice Presidents were high ranking members of the community, usually members of the Legislative Council.

A deeper examination of the functions of the Jamaica Agricultural Society as such raise questions as to how these functions would be carried out, by whom, and how they would be financed. It is evident, therefore, that although set up by a group of farmers to seek certain services, some of which are now regarded as Extension Services, the Society in fact envisaged that there would be a body of trained personnel who would carry out these services for farmers. With reference to "trained" it is even observed that the JAS had in mind the construction and operation of a school to undertake such functions. Those ideas were not totally unrelated to the ultimate founding of what was to be known as the Government Farm School. The JAS's idea, therefore, was not as ambitious and grandiose as would have appeared at first blush.

The functional head of the "Extension Services" such as they were at that time was the Secretary of the JAS. He performed two roles. One of these was linked to the actual organisation of farmers into groups and branches. The second was related to the procurement of services for farmers. The first indication of action on the second role was the appointment of the first Agricultural Instructor by the Jamaica Agricultural Society in 1897. He had all-island responsibilities.

However, the programme envisaged by the Society was considerably more than could be handled by one instructor. Provision was made for increasing the staff on a gradual basis. This depended on two factors, namely funding and the availability of a trained person or persons who had the aptitude to be

trained. In the case of the former, the Society financed its programme from a government subvention. This started off at \$2,000 in 1897 and increased progressively thereafter. In addition, funding came from membership fees, Branch affiliation fees and later from proceeds which derived from farmers' stores and agricultural shows. There were direct members and members who operated through Branches.

On the subject of trained personnel, the demand for such staff is a factor which contributed largely to the founding of the Government Farm School in 1910. Staff were selected not only from the graduates of this School, but also from trained Primary School teachers who had an aptitude for agriculture and who had identified themselves with practical farming in its various dimensions.

A simple "structure" was adopted during the early years, but with the passing of time and the addition of new functions and executing staff, it became necessary to provide a more appropriate structure.

The country at the time still consisted of a large number of pens and estates. There were many small farmers who were expected to benefit from the programme, and it became necessary to provide staff to meet this objective. The staff of the Society increased as shown in the Table on page 4.

In order to assist it in performing its services to farmers, it was necessary to organize farmers into active groups. Thus, District Branches were the organisations through which the Instructors (as the Extension staff were to be called for many years to come) usually made contact with the farmers of an area. Field demonstrations were usually arranged with the Branch Society so that many persons could benefit from a single effort of the instructor. Demonstrations were usually carried out on a farmer's holding, and it was on these occasions, as well as at branch meetings, that officers were provided with the opportunity to perform their duties in keeping with the functions of the Extension Services set out above. In addition the Agricultural Instructors assisted with the establishment and operations of the Agricultural Co-operative Loan Banks. These banks, then known as the People's Cooperative Banks, still

play an important role in providing credit to farmers over the entire country.

The Organisation in its totality was as follows:-

- (i) District Branches (Affiliated Branches);
- (ii) Branches Associated (Parish level);
- (iii) Direct members (had to function through a Branch).

Instructors served on a district level, but for administrative purposes they reported to Supervisors when these became available during the 1940s. The work of the Instructors was controlled by the Instructors' Committee, the Chairman of which was the Director of Agriculture.

The Secretary of the Society was a member and the Committee had executive authority.

It is recorded that the statistical growth of the Society is as set out:

Year	Direct Members	No. of Branches	No. of Members	No. of Instructors	No. of Supervisors
1897	364	6	300	1	-
1910	500	63	3,500	11	-
1935	727	298	6,841	21	-
1945	1,383	445	14,332	65	7

Source: *History of the Jamaica Agricultural Society* by Clyde Hoyte.

In 1942 A. J. Wakefield, Agricultural Adviser to the Comptroller for Development and Welfare in the West Indies, in his Memorandum of Agricultural Development in Jamaica wrote:

"The Jamaica Agricultural Society is deeply rooted in the agricultural life of the people; proposals are therefore submitted to reinforce the Society's important function of Agricultural Extension work and dissemination to the people of the knowledge gained through experimentation by the Department of Agriculture."

He also indicated that the objects of the Society were and still remained the

"dissemination of information and knowledge for agricultural advance, the encouragement of cooperation between producers and the establishment of liaison between Government and the people - especially the peasantry and small farmers."

Wakefield also recorded that from time to time the status of the Society had been changed and that unsuccessful attempts had been made to amalgamate the Extension functions of the Society with those of the Department of Agriculture. The explicit request at that time was that such a merger was not desirable and that it should be resisted.

With the passage of time the Extension Services of the Society were handicapped due to inadequate technical training for the field staff and insufficient technical advice on improved farming methods. Wakefield proposed several improvements to correct this situation and some of them were implemented. Later it became apparent that the Extension Services should be broader based and influenced to a greater extent by the technical branches of the Department of Agriculture. Proposals towards this end were discussed between the Department of Agriculture and the Society.

At its Annual General Meeting in July 1950 the Society unanimously accepted proposals for integrating the extension services of the country and plans were subsequently prepared. These were to form the basis of the integration which began in 1951.

#### The Role of the Jamaica Agricultural Society

Because of the role played by the Society in initiating Extension Services in Jamaica on a formalised basis, it is necessary to indicate major areas of its involvement in the strictly agricultural aspects of their operations, and how they organized themselves to undertake these functions.



One of the first steps taken by the Society's Board of Management was to establish Branch Societies throughout the Island. Officers of the Society were instructed to have such local societies formed. Each such society would be incorporated as a recognised Branch as soon as its Secretary had reported that it was organised in accordance with the Rules and had 30 registered members.

The Western St. Ann Branch Society was the first to be organised. It was formed on February 28, 1896, and affiliated on July 8 the same year. The membership then was 41.

The Christiana Branch Society was next - formed on July 6, 1896, and affiliated on September 9 that year, with a membership of 71.

Four more Branch Societies came into being that year - Trinity Ville, North Clarendon, Darliston and Trelawny Branches, as they were called respectively.

These six societies had a total membership of about 300 - they consisted of large and small-scale farmers, meeting together in groups of thirty or forty in various districts for the first time to seek to improve the agriculture of Jamaica by their own combined efforts.

The Instructors gave constant demonstrations on the farmers' own farms and provided advice on the control of pests, the treatment of plant diseases and on suitable methods of cultivation generally. Through the years these local demonstrations for the improvement of holdings in connection with local prize-holding competitions always chalked up a degree of progress in those districts which could never be quite lost again. Much, too, depended on the watchfulness of the Instructors for any symptoms of the more important diseases which were immediately reported to the Secretary and to the Director of Agriculture whose Inspectors were despatched to make investigations and execute curative treatments.

### Commodity Associations

The JAS recognized the fact that there were commodities which had specialized problems, and to this end it set about creating a number of associations. As was natural from the way in which farming systems were constituted, some farmers were represented on many commodity associations.

Over the years the JAS was responsible for the formation of a number of commodity associations. The following list illustrates this:

<u>Associations</u>	<u>Year</u>
Banana	1927
Sugar	1941
Citrus	1945
Coconut	1945
Coffee	1948
Cocoa	1951

With the passage of time it became necessary for each Association to provide service staff even to a limited degree. The commodity associations acquired their own extension staff, who thus operated on a specialized basis.

These commodity associations, therefore, fell within the portfolio of the Ministry of Agriculture from time to time. They found it necessary to employ staff to undertake extension work on crops in a specialist role. As time passed, the number of extension staff increased and this increase was significant during the period 1969-72.

At the same time, however, many persons raised serious questions concerning the specialised services given by their extension staff and that given by the general extension staff of the Ministry of Agriculture. These questions became more pronounced and formed the basis for an assessment which was to be carried out later. Consideration was given to the advantages which could be derived. These included:

- (i) reduction of confusion to farmers;
- (ii) lessening the wastage of farmers' time;
- (iii) less competition between Extension staff in placing emphasis on specific crops;
- (iv) preparation of effective programmes and farm plans for each holding.

In this context the special case of Extension work for livestock must also be considered. The Extension Officer who is regarded as the general practitioner and who falls within the portfolio of the Extension Services was expected to undertake livestock work of a very general and simple nature only. The Livestock Development Division had specialist Extension staff whose functions were to treat specifically with matters of a livestock nature. In this the Livestock Development Division had a structure which was intended to facilitate liaison between its staff and that of the Division of Extension Services.

When development is quietly going on, the general public is not able to see very striking results, and so in the earlier years it was mostly in times of disaster that the value of the organisation and the work of the Jamaica Agricultural Society came in for high appreciation - as for example after the hurricane of 1903, during the great drought of 1907, and more after the hurricane of 1912 when seeds and plants were quickly and systematically distributed through the Branch Societies, and admirable restorative work was done by the Agricultural Instructors on holding-to-holding visits.

The scope of the Society and the number of its branches were on each one of these occasions quickly extended. The hurricane of 1912 also gave impetus to the formation of Loan Banks. After the hurricane of 1903 the Government began to make direct loans to farmers to assist them to replace their permanent crops. It was in this period that the farmers themselves all over the country made such demands for the formation of Branches and the appointment of more Instructors that these demands outran the funds available each year. Branch Societies sent an increasing number of representations to the

general meetings. This considerable growth in representations made it impossible to deal with all matters at one annual general meeting and this largely contributed to the change to two half-yearly general meetings. Farmers also requested that each meeting should be spread over two days and this started in 1944.

Experience showed that one of the most effective means of increasing effort and production among the small farmers was competition for prizes for their holdings. Competitions were held in rotation, and timely preparations were made for these with the help and advice of local Instructors. Marks were given on a classified scheme of purposes to be aimed at; the house, the garden, fencing, stock, poultry, provision-ground cultivation, drainage and water storage, coffee and other permanent cash-yielding crops, manuring, mulching, tillage, the pruning and care of fruit trees.

These competitions proved so popular and convincing in results that in addition to the regular schemes, small local food-growing competitions, principally for yams, corn and cassava, were organised by Branches subscribing their own prize money, with occasional help from neighbouring proprietors.

The JAS started the annual shows as a part of its operations and these shows have become an institution in themselves.

#### 4-H Clubs

The 4-H Club movement in Jamaica began in 1938 after much pioneering work by Mr. O. P. Martin, a member of the JAS field staff and later the first Superintendent of School Gardens. The Society quickly saw the virtues of using agriculture as the basis for training and for educating young people. The movement was officially launched in April, 1940.

At the onset many people felt that the 4-H Club movement was designed to keep peasant children on the land, but the movement grew rapidly to include even the students in Secondary Schools who indicated a desire to become involved in Agricultural Programmes.

4-H Clubites have performed creditably at home and abroad. Their performances in Cattle Judging at Royal Agricultural Shows in the U.K. have been outstanding and in one year they won the Gold Medal.

At its initiation the Movement obtained a subvention of \$4,000 from the Government. The annual grant has increased considerably over the years. However, this money has not been adequate to enable the Movement to cover the costs of all its operations. Fund raising activities were organized and voluntary workers contributed considerably in money, in kind and in service to the development of the movement.

Many of the technicians now serving agriculture in Jamaica were themselves members of the 4-H Club Movement. The Ministry of Agriculture, as well as the Department of Agriculture which it replaced, provided resources of staff and equipment for virtually all the training in the area of agriculture. The Extension staff and subject matter specialists and the Jamaica School of Agriculture played a significant role in the development of the Movement. The Movement has been regarded as a product of the JAS, and in fact was regarded as the juvenile branch of the JAS. Until recently it was the responsibility of the Ministry of Agriculture. It has now become the responsibility of the Ministry of Youth, Sports and Community Development.

Several agricultural and other projects too numerous to mention have been fostered by this Movement. More recently there is a rabbit project which is being developed not only as a hobby but to produce animal protein for human food.

PERIOD 1951 - 1955 - INTEGRATION OF EXTENSION SERVICES

Following the decisions made in 1950, the integration of the Extension Services began in 1951. The major functions were to be:

Advisory  
 Representational  
 Promotional and Organizational  
 Procurement of Farm Supplies  
 Information and publicity.

This was the first major reorganization of the Extension Services since 1895. The proposals required funding beyond that which could be provided by the local budget. Provision was made through a Colonial Development Grant for the general improvement of agriculture, which included the transfer of the Extension Services from Jamaica Agricultural Society to the Department of Agriculture. Concurrently Jamaica changed to a Ministerial system of Government and what was originally the Department of Agriculture became a part of the Ministry of Agriculture and Lands (MAL). The Head of the Service was now a Permanent Secretary, with a post of Chief Technical Officer, replacing that of Director of Agriculture.

In this system the services were directed by professional officers on an island level and four (4) at divisional levels, whilst at the parish level there were experienced technical officers, one each for the 13 parishes.

The agencies in the integrated system included the Extension Department, the JAS, the Jamaica Social Welfare Commission (JSWC), Cooperative Department, Primary Producers' Associations, Land Authorities, for all of which the MAL had Ministerial responsibility.

The main function of the Extension Services in this system was to assist as many farmers as possible to improve their holdings in accordance with a programme of improvement developed by the farmer with the assistance of his

technical officer. This effort was restricted to a small percentage of the total number of farmers, and there was general discontent among those who did not receive any assistance. The situation was aggravated by the operation of the Farm Improvement Scheme in which subsidy for the first time was used as an Extension tool as an incentive to increase production. Subsidies were given on such items as Hillside Farming, Water Supplies, Fencing, Farm Buildings, Pasture Improvement and Soil Conservation.

Another feature of this period was the establishment of Agricultural Research Stations with the officers in charge being responsible to the Divisional Officer. These stations were set up to undertake research on problems affecting farmers, as presented by Extension Staff, in order to find appropriate solutions, as part of their total responsibility for investigational work.

During this period two Land Authorities were established. One, the Vallaths Valley Land Authority (YVLA), was established in 1951, mainly to rehabilitate an area which had deteriorated considerably. The other, the Christaina Area Land Authority (CALA), was initiated in 1953 to develop an area which had considerable potential, while at the same time rehabilitating deteriorated areas within its boundaries.

The relevance of the establishment of these two authorities relates largely to the intensive use of Extension staff, and the manner in which their operations differed in this respect from those which obtained elsewhere on the island.

A list of the functions carried out indicates the intensity referred to. In this context an Extension officer was assigned to a much smaller number (500) of farmers than obtained for the rest of the island, where the number was often 5 times as many per Extension officer.

The wide functions covered meant that the staff had to be well-trained and experienced in many aspects. The terrain to be covered was such that soil conservation measures had to be a major factor to be considered in development and production projects.

*In addition to the functions normally performed by Extension Staff, therefore, the Extension officer had to concentrate on such aspects as land protection, soil and water conservation, gully control and road construction. Although these Authorities were intended to be autonomous and self-reliant, this obviously was not the case, as the staff had to obtain support from the other specialized disciplines and to integrate these operations with those of other Extension services of MAL which had island-wide responsibilities.*

*A significant feature of the two Land Authorities was the introduction of supervised agricultural credit which required Extension officers and credit staff of the Authorities to work in tandem in ensuring that credit was effectively used by the farmers for farm operations planned before the grant of credit. The major factor in obtaining credit was shifted from the provision of collateral, the security being the ability, industry and the performance of the farmer.*

*On the whole the integration effort initiated during the period 1951 - 55 was not the success expected. Although the system had its merits, there was one major weakness of each agency striving to maintain its own identity. This affected the co-ordination processes and weakened the impact of the Extension Services. This dictated the necessity for emphasis to be placed on co-ordination.*



PERIOD 1955 - 1964 - CO-ORDINATION

Owing to the fact that the need for co-ordination of the Extension Services was recognised, the following guidelines were established.

1. Definition of an appropriate policy for agriculture and rural development.
2. Definition of boundaries of the respective departments and dual responsibility.
3. Preparation of consolidated departmental programmes related to their respective boundaries.
4. Constant evaluation by Government at all levels of the Extension Programme to ensure co-ordination among all agencies involved.

In 1955 representatives of all departments and agencies engaged in the process of disseminating technical knowledge among rural people met, and a committee was formed to draft plans for co-ordination. From its recommendations a Standing Committee on Co-ordination of the Extension Services was established in the Ministry of Agriculture and Lands consisting of:

1. Director of Extension (Chairman);
2. President of Jamaica Agricultural Society;
3. Chairman of Jamaica Social Welfare Commission;
4. Chairman of 4-H Clubs;
5. Commissioner of Lands;
6. Principal Assistant Secretary (MAL).

In 1959, consequent on constitutional advance, a Parliamentary Secretary was appointed in the Ministry of Agriculture and Lands and he replaced the Director of Extension Services as Chairman. Simultaneously, the membership of the Committee was extended to include representatives of the Sugar Industry

Labour Welfare Board, Agricultural Credit Board, Forest Department, Department of Cooperatives and Land Authorities.

The Standing Committee for the Co-ordinated Extension Service was therefore made up of the following agencies.

1. Ministry of Agriculture and Lands:
  - a. Extension Service
  - b. Forest Department
  - c. Co-Operative Department
  - d. Lands Department
  - e. Agricultural Credit Board
  - f. Land Authorities.
  
2. Quasi-Government Agencies:
  - a. 4-H Clubs
  - b. Jamaica Agricultural Society
  - c. Jamaica Social Welfare Commission
  - d. Sugar Industry Labour Welfare Board.

A considerable measure of success was achieved by co-ordination, but continuous conflict existed between the idea of proposals to effect a programme of co-ordination and the desire to maintain independent identification of agencies. Another problem was that decisions arrived at by the Standing Committee on Co-ordination were sometimes not communicated to the field staff of some agencies. Despite the disadvantages of this period, programme planning was introduced in the system for the first time starting in the Western Division, comprising the Parishes of Westmoreland, Hanover, St. James and Trelawny. As time passed, the entire island became involved in this exercise. This necessitated the preparation of a five-yearly and annual programmes, supported by plans of work which included a wide range of social and economic objectives. Evaluation was done every six (6) months.

The result of increased activity by Extension staff was a glut in the parishes of St. James, Hanover, Westmoreland and Trelawny for such enterprises as Pigs, Poultry, Pumpkins, Cabbages and Plantains. There were serious complaints from the farmers about not being able to sell their produce and that steps should be taken to remedy the situation. This assisted in reaching a decision for the establishment of the Agricultural Marketing Corporation (AMC). Essentially this period was one in which there were efforts made to consolidate the more appropriate aspects of the systems which had preceded that of co-ordination which characterized the period 1955 - 1964.

PERIOD 1964 - 1969 - RE-ORGANISATION OF SERVICES  
THE RE-ORGANISED EXTENSION SERVICE, MAL, 1964 - 1969

The re-organised system was officially started in July, 1964. The only agency involved was the Extension Service of the Ministry of Agriculture and Lands. In arriving at such a system an important conclusion was that the range of jobs which an Extension officer had to perform under past systems restricted his ability to concentrate on his advisory work, which in Extension is the essence of his job. Two separate service arms were developed and co-ordinated by the Director of Extension. One arm was advisory and responsible for staff and farmer training. The other arm, which was complementary, was called the Development, being primarily responsible for administering Government Enabling Schemes. Additional staff was required in order to implement the new system, but this was obtained through a systematic re-deployment manoeuvre of the available Ministry staff.

The functions of this system were very clear.

The Development officers were concerned with all Special Government Enabling Schemes, including: Farmers' Development Scheme, Self-Support Farmers' Development Programme, Special Surveys and other agricultural credit schemes. For all these specialised programmes and projects staff was exclusively provided. The Advisory officers on the other hand were concerned with meeting farmers on the farm or in groups with a view to teaching them how to improve their existing skills as well as exposing them to new ones. This was supported by scientific knowledge made available by a team of professional Extension specialists, each specialising in one or more subjects, thereby enabling them to keep the advisory field staff up-to-date on their subjects. This was a popular system, but unfortunately, it did not seek to identify itself sufficiently with other agencies engaged in rural reconstruction work.

However, in the development of annual national Extension Programmes for production and training, farm leaders were always involved and these programmes were successfully implemented.

The major weakness of this system was that in each parish the Development and Advisory officers were of the same status which resulted in personal conflicts sometimes. Another was that it was impossible for the Director of Extension Service to effectively supervise his officers in the parishes from his headquarters in Kingston.

PERIOD 1969 - 1972 - RE-ORGANISATION OF SERVICES

The re-organisation of the Ministry of Agriculture in 1969 was a major one since the then Ministry of Agriculture and Lands (MAL) was split into two Ministries, namely:

- Ministry of Agriculture and Fisheries (MAF); and
- Ministry of Rural Land Development (MRLD).

This decision was taken without any involvement of the Technical, Professional and Administrative staff of MAL, as a consequence of which a number of conflicting and unfortunate situations arose. For example, there were questions raised concerning the Ministerial responsibility for the Agricultural Credit Board, the Agricultural Marketing Corporation and the Agricultural Planning Unit. The latter, although administratively responsible to MAF, in fact also served MRLD.

The Extension Services and affairs 'relating' to farmers fell under the Ministry of Rural Land Development, whilst the Technical staff and matters relating to land fell under the Ministry of Agriculture and Fisheries. This created many problems. An example of this was the situation in which animals became ill and there were potential administrative problems since the Extension officer was in the Ministry of RLD while the Veterinary officer was in the MAF. This required understanding on the part of these officers, which would not have been 'forced' on the basis of the existence of two Ministries.

Under this reorganisation eleven additional Land Authorities were formed to bring the number to thirteen. The first ones were Vallahs Valley and Christiana Land Authorities.

The additional ones were as follows:

- 1) Morant Bay
- 2) Port Antonio

- 3) Port Maria
- 4) Claremont
- 5) Falmouth
- 6) Cambridge
- 7) Grange Hill
- 8) Santa Cruz
- 9) Mandeville
- 10) May Pen
- 11) Linstead.

The major activities of the Land Authority were divided into three (3) categories:

- i) training and general assistance to farmers;
- ii) administration of various enabling schemes'
- iii) property management - land development and distribution.

#### TRAINING

Farmers' training in the Land Authority was carried out by Extension staff and took place through the following media:

- a) residential short-term (1 or 2 weeks) training programmes;
- b) lectures to groups of farmers;
- c) demonstrations; field days and individual farm visits;
- d) group farm tours;
- e) 4-H Clubs (Extension staff provided regular training programmes for 4-H Clubites);
- f) Home Economics groups.

ADMINISTRATION OF ENABLING SCHEMES

This involved the provision of advice to farmers; preparing farm plans for subsidies and loans; supervising the implementation of agricultural programmes, recommending the issuing of instalments for developmental work. The various schemes in operation were:

- 1) Self-supporting Farmers Development Programmes
- 2) Farmers' Development Programme - Subsidy Assistance Scheme:
  - (a) Food Crop Subsidy;
  - (b) Hill Farming Scheme;
  - (c) Farm Water Supply Scheme;
  - (d) Farm Building Scheme;
  - (e) Pasture Improvement;
  - (f) Farm Housing.
- 3) Farm Development Loan Scheme:
  - (a) Loans for \$2,000 and under could be made through the Land Authorities; whilst
  - (b) Loans over \$2,000 had to be made through the Agricultural Credit Board and had to be supported by suitably prepared development projects.
- 4) Fertilizer Subsidy Scheme: Operated among small farmers (outside of those crops covered through commodity associations such as All Island Jamaica Cane Farmers' Association (AIJCA), All Island Banana Growers Association (AIBGA), Citrus Growers Associations, etc.).
- 5) Crop Development: Many specialized crop development projects were initiated on farmers' holdings. The Extension staff played a major role in these exercises which covered such areas as:
  - top-working of permanent tree crops; disease and pest control;
  - use of fertilizers on individual farms and through demonstration plots; arranging for the marketing of crops; soil conservation measures and land reclamation exercises; and
  - general development programmes.



- 6) Aided Self-Help Schemes: The schemes, as their name implies, were intended to encourage farmers to undertake projects likely to improve rural communities in general, while assisting farmers through such specific projects as the construction of access roads to lands to be developed for agricultural purposes, cutting relief drains and building retaining walls. Farmers, although having ideas on a number of these projects, found that they required the guiding hand of the Extension officer, not only for technical reasons, but also to smooth out differences which occurred between farmers in pursuing desirable and achievable projects.

#### PROPERTY MANAGEMENT

- a) Recommending acquisition of suitable properties for land settlement purposes;
- b) Selecting applicants for allotment;
- c) Laying down rural infrastructure: roads, water supplies, building, community development, etc., and ensuring that they are adequately maintained.
- d) Assisting settlers in planning the development of their holdings and in implementing the plans. Assistance of a technical nature is also provided to enable the farmer to adopt recommended practices.

#### STRUCTURE OF EXTENSION STAFF 1969 - 1972

During this period the duties of the senior officers were as follows:

- 1) The Director of Training was responsible for staff and farmer training, with emphasis on residential courses or requests from the parishes.
- 2) The Director of Special Projects was responsible for monitoring the Self-supporting Farmers Development Programme, which was a loan scheme.
- 3) The Coordinators were responsible for monitoring and evaluating programmes in the western and eastern sections of the island respectively.

- 4) The Extension Specialists were responsible to liaise between Research staff and the staff in the authorities. They were therefore responsible for a two-way flow of information. The Specialists were assigned such topics as Home Economics, Training, Evaluation, Permanent Crops, Semi-permanent crops, vegetables, grains, food crops and farm management.
- 5) The Executive Agricultural officer was responsible for planning, executing, controlling and evaluating all programmes in his work, as well as supervising the Divisional area and other officers.

During this period the major changes were as follows:

- 1) The post of Director of Extension was changed to Director of Training.
- 2) The post of Deputy Director of Extension was changed to Director of Special Projects.
- 3) Two posts known as Coordinators were created.
- 4) The post of Parish Agricultural Officer was changed to Executive Agricultural Officer.
- 5) All Directors, Coordinators, Extension Specialists and Executive Agricultural Officers reported to the Permanent Secretary. This was not practical as too many people were reporting to one person.
- 6) There was a committee chaired by the Chief Technical Officer to coordinate the efforts of the different directors and this was discontinued. The result was a breakdown of relationship between Departments, particularly between Research and Extension.
- 7) The staff concentrated more on regulatory rather than advisory work.
- 8) Some farmer services and Extension work became the responsibility of the Ministry of Rural Land Development, but the majority of professionals were under the Ministry of Agriculture and Fisheries. This resulted in problems to carry out Extension programmes, e.g. control of diseases and pests, since the veterinary officers were in one Ministry and Extension in the other.

PERIOD 1972 - 1977 - RE-ORGANISATION

In February 1972 there was a national election which resulted in a change of Government. The two Ministries of Agriculture, namely Ministry of Agriculture and Fisheries (MAF) and Ministry of Rural Land Development (MRLD) were again merged into a single Ministry - the Ministry of Agriculture.

Where Extension work was concerned the major change at that time was the creation of a post of Deputy Chief Technical Officer, who did not relate to the Chief Technical Officer, but whose assignment was essentially that of the Director of Extension Services.

In accordance with Government's policy for ensuring that all agricultural land is appropriately used and that small farmers and landless farm workers have access to land, a programme called Operation GPO was formulated to bring together Project Food Farms, the Self-Supporting Farmers' Development Programme and Project Land Lease. The first project did not involve the Extension staff but the other two became the prime responsibility of the Extension services. Subsequently, a Crop Care Programme was introduced and this, under the leadership of a senior Plant Protection Officer of the Extension Division, utilised the services of Extension staff in training and assisting farmers to reduce the considerable crop losses caused by pests and diseases.

In the past, it was a requirement that Extension Officers should be graduates of the Jamaica School of Agriculture, but due to the rapid rate at which the above schemes were introduced and the large manpower requirements, a decision was taken to employ people of a lower educational standard. This had actually begun in 1971 when over thirty Agricultural Headmen were promoted to Area Officers, but the gamble did not pay off. Attempts have been made to improve these individuals by in-service training, but it takes time for one to cover subjects which require a three-year programme at the Jamaica School of Agriculture. There was also the additional factors that ISA graduates require a higher basic educational level than is possessed by Agricultural Headmen, and that there is a limit to what the latter can assimilate through an in-service programme of training.

It is a known fact that whereas you can destroy overnight, it takes a much longer time to rebuild, and so the reuniting of the two Ministries was very slow and presented many problems.

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PERIOD APRIL 1, 1977 - AUGUST 1978 - RE-ORGANISATION

In 1973/74 an Agricultural Sector Study was carried out with assistance from experts provided through FAO. The study took cognizance of the unwieldiness of certain areas of the structure of the Ministry of Agriculture (MINAG) and recommended that the Extension Services should be re-structured. As a result of the findings of the Sector Study a decision was taken that the Extension Services should be re-organised and that the main areas of emphasis would be:

- (1) All Extension Officers, including Commodity Associations, e.g. Coffee, Cocoa, Banana, should be brought under one umbrella.
- (2) Three regions should be established with decentralization of all services.
- (3) The number of officers should be increased so as to provide a ratio of 1 officer to 500 farmers.

As part of the re-organizing exercise the island was divided into 3 regions in April, 1977. These were:

- 1) Northern, comprising St. Ann, St. Mary and Portland.
- 2) Southern, comprising St. Andrew, St. Catherine, Clarendon, Manchester and St. Thomas.
- 3) Western, comprising St. Elizabeth, Hanover, Westmoreland, St. James and Trelawny.

Parish advisory committees have been appointed by the Ministry and their job is to work as a team with the Parish and Extension Staff with a view to effecting projects and programmes that will meet the needs of the local people. The Extension Service is comprised of the following divisions:

- 1) Teaching and advisory;
- 2) Training;
- 3) Crop care.

### Teaching and Advisory:

This service is concerned with economic, social and cultural development of the farmers and their families throughout rural Jamaica. Extension workers serve mainly as agents of sociological and technological change. In order to achieve these objectives, Extension Officers receive training and function in two specialised disciplines - Agriculture and Home Economics. In addition, all Extension Officers are given some degree of training in rural sociology. They also play a major role in the implementation of Government Enabling Schemes, Programme Planning, Farmer Training and Evaluation.

The staff consists of:

- 1) One Director, Extension Service;
- 2) One Deputy Director, Extension Service;
- 3) One Chief Home Economics Officer;
- 4) Sixteen Subject Matter Specialists;
- 5) Three Regional Directors;
- 6) Three Deputy Regional Directors;
- 7) Three Regional Home Economics Officers;
- 8) Thirteen Parish Officers;
- 9) Thirteen Parish Home Economics Officers;
- 10) Sixty-five Divisional Officers;
- 11) Four Hundred and one Area Extension Officers.

Officers 1) - 4) operate on an island level. The Director of Extension Service is the senior person.

### Home Economics:

The Home Economics Officers are responsible for planning, organising and monitoring the Home Economics Programmes in the areas under their control. Priority is placed on improving the nutritional status of the farm family, as well as better use of local materials to increase their incomes through the production of:

- a) handicrafts;
- b) preserves;

- c) pickles;
- d) liqueurs;
- e) wines.

The wives of the farmers also visit the Training Centres for Residential Courses, where emphasis is placed on the preparation of meals. Since the women are at home most of the time, simple principles of management in crop and livestock enterprises are included in the course content. Experience has now shown that by these wives the Extension Officer is able to get farmers to accept a number of new ideas much easier.

### Training Division:

This division is responsible for the planning, organising, execution and control of all training programmes in the Ministry. Priority is given to Induction and In-Service Training for staffs, as well as Residential and Non-Residential Courses for farmers. The division also selects and nominates officers to attend appropriate training courses offered through the Central Training Programmes of the Ministry of the Public Service.

There are four training centres located at Twickenham Park, Eltham, Canaan and Smithfield, which are equipped to handle residential courses. Each can accommodate thirty (30) persons at a time. The staff consists of:

- 1) One Director of Training;
- 2) One Deputy Director of Training;
- 3) Four Training Officers;
- 4) Four Officers in charge of Training Centres.

### Crop Care:

This section is responsible for the overall management, development, research, execution and effective control of advisory services in Plant Protection. The loss to agriculture over the years due to diseases and pests has been consider-

able. It was recognised that the Extension Division as structured could not cope with the problem, so the decision was taken to form this unit. Its staff works in close collaboration with the other Extension Officers, who advise which holdings should be visited. This has proved to be a very effective way of teaching the officers methods of good control for diseases and insect pests.

The Crop Care Unit is equipped with spraying equipment. When a spraying job is completed, the farmer pays a nominal fee of \$3.00 per acre, largely to cover the cost of materials used. In view of the fact that the services rendered are intended to increase farm income, the intention is that in time farmers would themselves acquire equipment and purchase materials for spraying. The outstanding problem is that of getting all farmers to adopt crop care measures so as to have a fuller control of pests and diseases.

The staff consists of:

- 1) One Chief Plant Protection Officer (Extension);
- 2) One Chief Plant Protection Officer (Entomology);
- 3) Three Regional Plant Protection Officers;
- 4) One Chief Agricultural Assistant;
- 5) One Senior Agricultural Assistant.

#### LIAISON BETWEEN THE EXTENSION SERVICES AND RESEARCH

Research and Extension are inter-dependent if they are to be used in developing agriculture to its potential. Some people make a clear distinction between the need for basic research and that for applied. Both are necessary but in our context the emphasis should be on applied research. This should further ensure that the Research Department undertakes projects which have a relevance for use by farmers. They in turn through the Extension Officers would liaise with the researchers, who would feed back results to Extension Officers for use by farmers.

On these assumptions proposals have also been made for improving the Extension Services, and companion proposals are actively being pursued to ensure that there is appropriate inter-facing between Research and Extension.

It is proposed that in time all agricultural research will come under one umbrella - appropriately co-ordinated, and that a small number (3) of key research stations will be strategically placed. Liaison between research and extension will be spearheaded mainly by the group of officers called Extension Specialists. The proposal is that 16 Extension Specialists already provided will work closely with the Research Officers at the research stations with a view to assisting in informing and training Extension staff, and eventually farmers, in new and improved recommended techniques. This is intended to help improve farming returns and provide a better quality of life for those engaged in agriculture, and help to ensure self-reliance, economic viability and stability.

Although the new proposals appear to be well orchestrated, no formalized structure is currently available to indicate in precise terms what this structure will be. Admitting that structures are not fixtures in the sense that buildings are, and even these are often built to accommodate change, Jamaica is now over-anxious to have this structure for its Extension staff formalized. It formed the link between organisations and farmers when the first formal package of Extension Services was put together in 1895 - as a direct request and on the initiative of the farmers themselves. Today the thinking is that a part of that strategy must be recaptured to enable farmers, Extension staff and researchers working in tandem to improve their way of life, develop our rural areas, reverse our adverse balance of trade in agriculture and stem the rural-urban drift.



## SOCIAL INSTITUTIONS

Extension work deals specifically with farmers. Those responsible for providing Extension services to farmers use both the individual and the group approach. There are many social institutions which play important roles in the communication processes which must exist between farmer and Extension worker and vice versa. The more important of these are:

- The Family
- The Church
- The Primary Schools
- The Jamaica Agricultural Society
- Commodity Associations
- 4-H Clubs
- Home Economics Groups
- Informal Social Systems.

### The Family:

Almost universally the family is recognised as the most important of the institutions which comprise the social systems. In Jamaica this tends to be rather pronounced, especially in the rural areas. The "family" is an intimate social system in which the members co-operate to make a living. The household is the fundamental unit in the economic system. The farmer's spouse is firstly a social partner and then an economic one. The man looks after the farm chores - the more burdensome ones, at least. His spouse looks after the household chores and the education of the children abdm together with the children, assists with the lighter farm chores and does the marketing. Not all the children go into farming. Indeed farmers wish their sons to have a better livelihood than themselves and only the dullards were encouraged to remain in agriculture.

There are some modifications to this type of family farming whereby the spouse actually participates in many farm chores. Indeed, recently it has been observed that there is an increasing demand by women for land to undertake farming on their own. However, it is the farmer himself who takes the decisions

concerning the farming operations. Case studies indicate a growing involvement of women in the decision-making processes. This is of specific relevance in determining who deals with the Extension Officer, the farm Credit Officer or the Co-operative Officer as the case may be. In addition, there is now an opportunity for accommodating the farmer's training needs as well as those of his wife. This was effected through a judicious mix of Agriculture and Home Economics in the overall services provided by the Extension Officers. On the overall the family farm has provided an important vehicle for liaison between the farmer and the Extension Officer.

In Jamaica family farming differs in a number of ways from those which obtain elsewhere. For example, some entail situations in which the children, although required to assist with the farm chores, consider themselves free to come and go as they desire. At times the absence is for long periods. In spite of this, the "return of the Prodigal son" is usually an occasion for merry-making. This creates certain problems, especially when labour is required at strategic times for such key operations as land preparation, cultivation and reaping, which require their labour input.

#### The Church:

Farmers in general are very religious and there is a strong link between farm families and the Church. This factor has been used by the Extension Officer in the past to the advantage of both.

The Church was established in Jamaica in 1662 under the control of Government on the endowment principle, Ministers being paid by the state. In 1870, however, the gradual disendowment of the Church was set in motion by Law 30 of 1870, which provided for a constitution to be drawn up for the future operation of the Church on a voluntary basis. The constitution which ensued is in large measure that which is still operating today.

Some of the denominations played a role of paramount importance, which led to a series of events for the abolition of slavery in 1838. More importantly, however, it was the Churches, the Baptists in particular, who were mainly

responsible for the earliest involvement of Jamaica in land settlement for agricultural purposes. When the JAS was formed in 1895 the strong attachment of farmers to their church was used as a means of distributing agricultural information of a wide range to farmers. This included notices of meetings, suggestions for crop care and other matters of interest to farmers in particular.

In addition to these religious activities and their involvement in assisting the JAS in its communication processes, the Church was involved in other secular activities. It provided recreational facilities, built schools and generally was so involved with the farmers that the latter came to be regarded as the pillars of the church.

### Primary Schools:

Many of these schools were founded by the various religious denominations of the day. Their numbers were increased in response to requests and agitations made to a number of Royal Commissions. This eventually created a mix of denominational and government schools - a system which has stood the test of time and still exists today. These denominations also created most of the first set of secondary schools founded on the island.

Most of the children in rural areas attend these primary schools. The school leaving age was 14 years, but a relatively small number of bright students could gain admission to secondary schools. Those who displayed aptitude went to trade schools. Many children became drop-outs for different reasons. Some dropped out due to economic conditions, since they were required to provide a part of the labour on parents' farms. School attendance was seasonal, and usually varied with the labour requirements on the farm, specifically at planting time and at harvest.

The question arises as to the effect these had on an agricultural programme in the overall and how this involved Extension staff. Many rural schools had a school garden and this formed a link between the head teacher (who in many instances was the President or Secretary of the District Branch of the JAS)

and the Extension Officer or Agricultural Instructor, as he was called in the early days of Extension work. He sometimes assisted the teacher in planning and developing work on the school farm as a basis for imparting skills to rural youths. Indeed the school teacher was regarded as an important, if informal, arm of the Extension Services. So important had this aspect become over time that the Department of Education appointed a Superintendent of School Gardens. This post still exists in the Ministry of Education today, but under a different name.

The training acquired by these youths with the assistance of the Extension Officer was not lost and in fact provided a useful example to many who later went first to the Vocational Schools (Practical Training Centres) and later to the Government Farm School, which subsequently became the Jamaica School of Agriculture. The graduates of the latter institutions provide the hard-core of the Extension staff of the country.

#### The Jamaica Agricultural Society

The JAS is included as one of the social institutions because it endeavoured to deal with anything and everything which affected the welfare of farmers and their families. The Society, as already indicated, operated through Branches set up across the island.

The membership consisted of large and small-scale farmers, who met regularly to discuss matters relating to agriculture, but more importantly, anything dealing with the welfare of farmers. This was understandable in view of the deep-rootedness of agriculture in the lives of the rural people. It was, therefore, difficult at times to draw any hard and fast lines of demarcation between economic and social goals.

Such was the involvement of the JAS with people that there was no other single organisation in its early years which wielded such a powerful influence over adults as the JAS.

Much has already been said about the JAS in providing technical assistance and establishing agencies to assist in this direction - particularly the commodity associations and the 4-H Clubs. The point has already been made of the difficulty in separating the strictly economic aspects from those of a social nature. The activities of the 4-H Club movement and the development of Home Economics groups reinforced the close association between social and economic goals.

#### Home Economics Groups:

It was observed by the Extension Department that the Extension Officer was engaged in improving the economic status of the farmer, but that the nutritional and associated aspects were not receiving comparable attention. Measures were adopted to correct this defect by expanding and upgrading the Home Economics services. In 1977 a Chief Home Economics Officer was appointed and provision made for 3 Regional and 13 Parish Home Economics Officers. This staff then set up Home Economics groups in different districts all over the island. Most of the members of these groups were wives or daughters of the farmers. In these groups they were taught not only ways of improving the nutritional standards of the diet, but also to use materials and equipment more efficiently.

Another feature was the promotion of local industry, e.g. preserves, wines, liqueurs, so that there will be a revenue from agricultural produce which ordinarily would have been thrown away. Included in the training programme were one-week courses at one of the training centres at Twickenham Park, Eltham or Canaan.

Two major observations were:

- a) the average cost for the women per course is much higher than that for the men;
- b) involvement of women in the programme tended to improve the rate of acceptance of these new practices to which their male counterparts were also exposed.

### Informal Groups:

These do not comprise a social system as such, but they include persons who become involved in providing assistance or advice at the grassroots level, so to speak. They range from persons who gather in the bars and rum shops to individuals who collectively are known as our 'voluntary workers'.

The first group usually contributes through arguments in which various viewpoints relating to agriculture in particular and other matters of topical interest are voiced. Those who have been fortunate enough to listen to a number of these discussions have left quite educated in the tenacity with which some folks hold on to traditional practices, question the effectiveness of Extension work, agricultural policy, as the case may be. Where there is a vocal leader (self-appointed, usually) he can be used to provide useful information as a basis for further examination. He is usually a person in whom his colleagues have built up a fair degree of confidence over the years. The meeting-place of the bar or rum-shop has essentially become an institution in itself in which much information is gained, and Extension Officers have found them to be useful in many ways.

The second group consists more of persons acting individually. It includes such persons as the Presidents and Secretaries of various organisations, the Postmaster, Police Officer, Minister of Religion, Teacher, Medical Officer, Justices of the Peace, the Nurses, the Member of Parliament, Councillor and so forth. In general the Extension Officer works closely with these persons, usually of affluence and influence, and with individuals who, because of their public-spirited activities, had built up an image for undertaking voluntary work on behalf of their communities. This contribution, which was made largely, if not entirely without reward, appears to be dwindling.

A group which is of importance because of the services performed in the marketing and distribution area is the Higgler. Although performing services to the community at large, they are at the same time obtaining access to certain social amenities which they would not have obtained otherwise. The Higgler has become

an institution in getting produce from inaccessible areas to almost any part of Jamaica. It is a group which, although un-organized until recently, has succeeded in handling some 70% - 80% of locally produced foodstuffs. Efforts by Governments to organize the group have failed but very recently they themselves formed an association known as the Jamaica Association of Higglers (JAH).

#### Evaluation:

Extension work in Jamaica has not been evaluated in the strict sense of this term. In this sense one is speaking of the type of evaluation which would lead to an assessment as to how effective is the work carried out. Methods used sometimes include such approaches as the extent to which recommended practices are adopted; the rates of adoption; the extent to which the Extension Officer himself is required to undertake practices for the farmer; the percentage of the targeted farmer population reached; and ultimately, the degree to which Extension work has been responsible for improving the level of husbandry, imparting techniques and so forth.

The Extension Services must so operate that they have not only built-in features for self-examination and evaluation, but also features which would enable objective evaluation by those outside the system. To date there is no evidence of this kind of evaluation having been done. Without checks and balances there really is no means of deciding what alterations should be made to have a more efficient and effective Extension Service.

SUMMARY AND OBSERVATIONS

Period 1.

1. The first period 1895 - 1951 was one of initiation, cutting-and-trying and eventually formulation of extension work on a structured basis.
2. The initiative was taken by farmers themselves with a view to obtaining services born out of their felt needs. The JAS was the responsible agency and during the period the terms "Extension Services" and JAS came to be used interchangeably.
3. The period saw a considerable build-up of membership, formation of Branches, an expansion of staff and growth in services rendered to farmers. There was also a sizeable build-up in real property.
4. Other milestones reached during the period included the founding of the Government Farm School which during the same period became the Jamaica School of Agriculture.
5. This period also saw:
  - (i) the creation of Commodity Associations; and
  - (ii) the founding of the 4-H-Club Movement.

Period 2. 1951 - 1955

Extension Services were integrated by transferring to the Department of Agriculture Extension functions which had been performed by the JAS, leaving them with the main duties of organisation and representation. Levels of operation were Island, Divisional, Parish and District. Two Land Authorities have specialised Extension services and supervised credit was created.



Period 3. 1955 - 1964

The main thrust was one of co-ordination involving such agencies as Extension Service, Forest Department, Lands Department, Co-op. Department, Agricultural Credit Board, Land Authorities, 4H-Clubs, Jamaica Agricultural Society, Jamaica Social Welfare Commission and Sugar Industry Labour Welfare Board. During this period programme planning was introduced, starting in the Western Division.

Period 4. 1964 - 1969

A limited "re-organization" took place in which the only agency affected was the Extension Service of Ministry of Agriculture and Lands. Under this system the divisional structure was abolished with the officers being deployed as Extension Specialists. The officers in the parishes were divided into two (2) streams, namely Advisory and Development.

Period 5. 1969 - 1972

During this period the Ministry of Agriculture and Lands was divided into two (2) Ministries, namely Ministry of Agriculture and Fisheries and Ministry of Rural Lands Development. The Extension Services fell under the latter, whilst the technical services remained under the former. To facilitate this the entire island was divided into Land Authorities, increasing the number from 2 to 13.

Period 6. 1972 - 1977

The two (2) Ministries of Agriculture were again merged to form Ministry of Agriculture. Recommendations were made in the Agricultural Sector Study 1973/74 for a complete re-organization of the agricultural services, including the Extension Services. In particular all Extension Services should come under one umbrella of responsibility.

Period 7.

Since 1st April 1977, when the island was decentralized into three (3) regions as follows:

- a. Northern, comprising St. Ann, St. Mary and Portland.

- b. Southern, comprising St. Andrew, St. Catherine, Clarendon, Manchester and St. Thomas.
  - c. Western: St. Elizabeth, Hanover, Westmoreland, St. James and Trelawny.
- A. The major social institutions which play an important role in Extension work are: the Farmers, the Church, the Schools, the Jamaica Agricultural Society inclusive of 4H-Clubs, Home Economics Groups and informal groups consisting of voluntary workers, grass-roots groups and the Higglers.
  - B. There has always been a scarcity of qualified staff for Extension work. Most of the recruits are from the Jamaica School of Agriculture, whose annual out-turn of graduates is not sufficient to meet the needs of Government and private enterprise. Graduates over the last fifteen (15) years are not oriented practically for Extension work, so repeated recommendations have been made for changes in the curriculum. Many have eschewed agriculture as a profession once they graduated.
  - C. Prior to 1965 little consideration was given to the nutritional needs of the farmers, and so a Chief Home Economics Officer was appointed. This section of the Extension Service is being given special attention in this direction, but unfortunately it is only one officer to each parish, and this is totally inadequate.
  - D. In 1972 the Extension Service was equipped to offer training to over 4,000 farmers per annum in one-week residential courses. Women account for 25% of those participating. This is to supplement the on-the-farm training, the content of which should be in direct relationship to the programme planned for the community.

The Service has a potential of half a million farm visits, the carrying out of 150,000 demonstrations and 5,000 field days annually. Over the years, however, the staff spends too much time on loan and subsidy applications as compared to advisory work.

- E. Depending on the needs, the staff is always exposed to pre-service induction, in-service or graduate training to equip them for better efficiency on the job. In addition, candidates are recruited occasionally for short courses abroad at reputable institutions.
- F. Little or no research has been done in Extension. A project that comes to mind is "the degree of effectiveness of each of our past systems in Extension, and the development of techniques for determining a ratio between Government's output to run the services and Agriculture's contribution to the gross national product". Another is the effect of subsidies as an Extension tool for increasing production. A third could be "the effect of farmer training as an Extension tool to increase production, with a comparison between men and women farmers".
- G. Programme Planning, Farm Plans and Plan of Work are basic ingredients for an efficient and effective Extension Service. This has been a major weakness of our system as programme planning is missing, except for the period 1958 - 1969.

In order to correct this situation there is need for a policy decision to state clearly that programme planning is the hub of Extension teaching. Officers should then bear in mind that in formulating any programme it should be greatly influenced by the views of the farmers. In other words the farmers should be involved in the programme building process.



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