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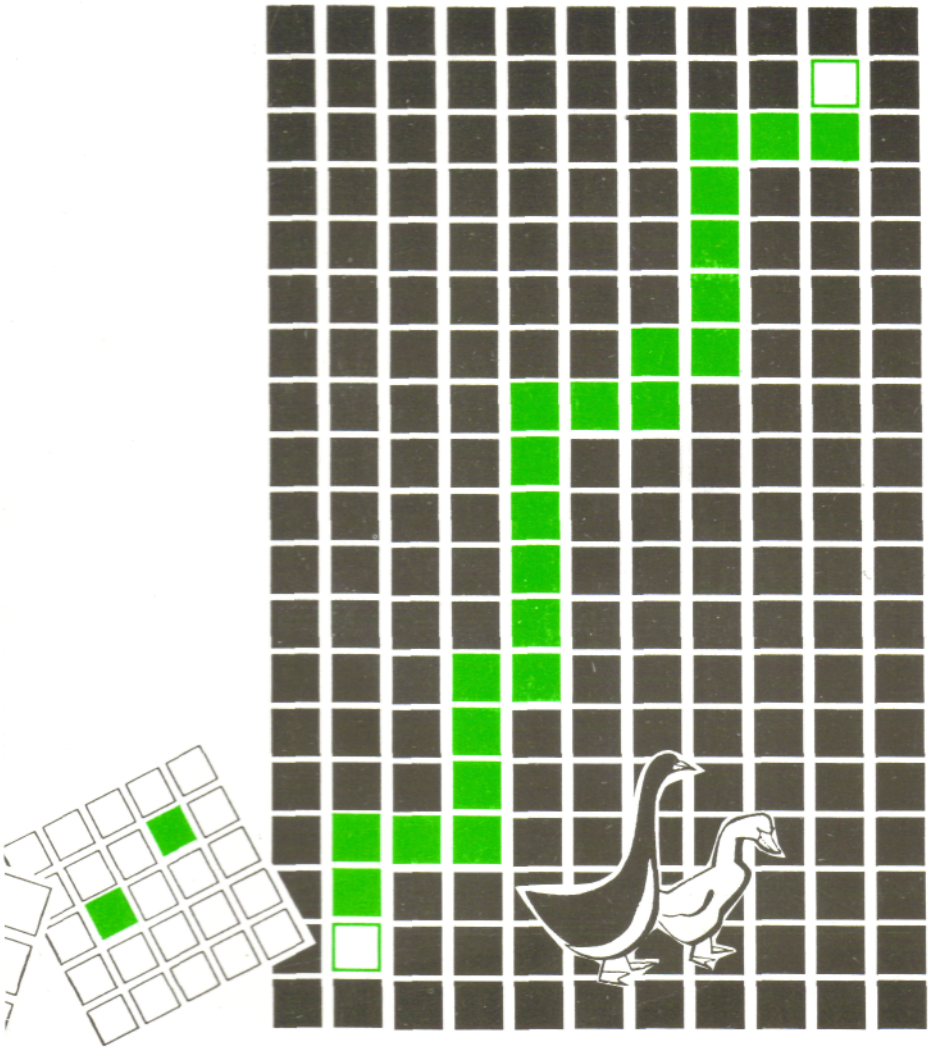
ISSN 1019 – 035 X

Farm & Business



Vol.3, No.1, March 1996

The Journal of the Caribbean Agro-Economic Society

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AGRICULTURAL EXTENSION IN THE EASTERN CARIBBEAN: SOME LESSONS LEARNT

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ABSTRACT

Over the years agricultural extension in the Eastern Caribbean has moved from being functionally geared to support the activities of the Botanic Gardens to being directly involved in, and in some States being regarded as having direct responsibility for, national agricultural development. During this historic development several extension approaches have been tried and tested, and the Faculty of Agriculture of The University of the West Indies and its predecessors have played dominant roles in this development. This paper examines some of the attempts at transforming agricultural extension in the Eastern Caribbean countries, reviews some of the lessons learnt and proposes some options for enhancing the developmental impact of extension in these countries.

EARLY BEGINNINGS

More than 200 years ago botanic gardens began being established in the British Colonies in the West Indies. In fact the St. Vincent Botanic Gardens, which were founded in 1765, are the oldest in the western hemisphere. By the end of the 19th century there were botanic gardens in all of the Windward islands of Grenada, St. Vincent, St. Lucia and Dominica. The main functions of these botanic gardens were to make local collections of plants, introduce exotic and commercially valuable plants, and act as the centres for the propagation and distribution of economic plants. A rudimentary system of distribution and support services was put in place to facilitate the establishment of economic agricultural crops, but the main beneficiaries of this embryonic extension service were the large estate owners who had direct access to the curators and technical staff of the Gardens.

As export crop production expanded and became more diverse the demands made on the botanic gardens surpassed their capabilities to deliver. It was also realised that greater efforts needed to be made to reach the large numbers of small farmers who, because of their

isolated positions, were out of touch with the work carried out at the botanic gardens. An Imperial Department of Agriculture for the West Indies was established in 1898, with headquarters in Barbados and responsibility for servicing the agricultural development needs of the Leeward and Windward Islands. This regional Department of Agriculture was commissioned to

1. Supervise and extend the work of the Botanic Stations.
2. Start industrial schools for agricultural training.
3. Encourage teaching of agriculture in elementary schools.
4. Promote teaching of scientific agriculture in colleges and schools.
5. Organise shows of agricultural engineering and horticultural interest.
6. Prepare agricultural bulletins, leaflets and other literature for the West Indies.

In 1901 agricultural instructors (i.e. the first extension officers in the Eastern Caribbean) were appointed to travel around the various territories to instruct farmers in methods of plant propagation and improved cultural practices. The larger estates received the bulk of the services of these extension officers who were perceived and treated not as educators but as glorified labourers provided free of cost by the government. Much of the time of extensionists was therefore spent in lining for drains and tree crop planting, budding and grafting, pruning, spraying and performing such other farm chores.

Up until the mid-1960s there was no clearly defined philosophy to guide the functions of extension workers. They provided both regulatory and support service functions, and might one day be providing assistance to one farmer and on the following day instituting punitive sanctions against the same farmer. To cope with this conflict in functional interests each extension worker established his own set of guiding principles. Generally this meant diligently performing tasks on the larger estates, endeavouring through these actions to demonstrate their own individual expertise and technical superiority over the employed farm staff, and thus gain the approval and esteem of the owners.

With the small farmers, who generally provided their own farm labour and whose limited land resources and cropping systems provided fess opportunities for the extension worker to demonstrate his superior agricultural skills, recognition and acceptance came not through technical expertise but through social fraternising. The strategy adopted by many extension workers of that period was to join the small farmers in their village games of dominoes and draughts and drinking rum. The general approach used by extension in that period can be described as one of *"Show how, and tell."* With both large and small farmers this meant showing how to perform a recommended practice, not merely by demonstration but by actually performing the task in its entirety. Additionally, with the small farmer it meant showing that he could *'hold'* his drink as well as any man. This made alcoholism an occupational hazard for the agricultural extension officers of those days, and many of them ended up being alcoholics.

There were some positive aspects to

this pragmatic extension approach. Because the estate owners accepted the relative expertise of the extension workers they permitted their farm and related resources to be used for the testing and validating of new technologies. Successful on-farm trials were used as field demonstrations for the small farmers who, because of their social acceptance of the respect for the extension officer, were inclined to accept and to adopt his technical recommendations. The result was the relatively easy acceptance and practise of many new technologies in those days (e.g. soil conservation practices such as contour draining, grass barriers and stone barriers; the use of leguminous cover crops; mulching; tree pruning and proper harvesting techniques).

THE ADOLESCENT YEARS

From the mid-1960s concerted efforts were made to change the image, philosophy and practice of extension in the Eastern Caribbean. Most of these efforts originated from UWI Faculty of Agriculture, Department of Agricultural Extension, as exemplified in the UWI Agricultural Extension Annual In-service Training Courses which celebrated their 25th anniversary in 1992. These annual joint-island courses as well as special summer courses geared to the specific needs of individual island territories and distinct target groups, focused on developing among extension practitioners and administrators new attitudes and understanding of the role of extension, and new skills in extension programme development, programme execution and extension communication techniques.

The 1960s and 70s also saw the demise and fragmentation of a large number of estates. This and the expansion of the banana industry in the Windward Islands resulted in a rapid rise in the number of small farmers. The Islands were however experiencing a stagnation in their agricultural development, particularly in the development of the banana industry of the Windward Islands despite increasing expenditure on extension, research and infrastructure. One inference was that the extension strategy then being used 0-e. largely the show how and tell approach), did not adequately address the situation and needs of the changed extension clientele.

In 1974 the UWI Department of Agricultural Extension with funding from the British Overseas Development Administration, embarked on the Windward Islands Extension Communication Research Project which set out to identify the factors constraining the development of the banana industry, and to design communication strategies for enhancing the effectiveness of extension efforts. The study results showed, among other things, that the research on which technical recommendations were based was carried out under conditions which could not be duplicated on most small farms. The results of such research were therefore not relevant to the majority of the target farmers, hence the reason why extension's recommendations were largely ignored.

The study results further underscored the changed situation of extension's clientele: lower resource base and consequent aversion to risk taking, lower level of education, dependence on a farming system which maximizes security

rather than output, and in the case of St. Lucia and Dominica, use of a folk language (Creole) rather than the *'official'* extension language of communication, which is English. The study made several recommendations which resulted in changes in the manner of conducting both extension and research, changes which are still relevant to this day. Among those recommended changes were the need for (i) on-farm research and technology validation in the banana industry, (ii) greater use of mass communication methods in extension, (iii) use of the folk language in radio communication.

IN PURSUIT OF A SUITABLE SYSTEM

During the 1970s and 80s there were several attempts made at developing extension approach which would aptly address the situation and needs of extension's clientele in the Eastern Caribbean, and which would result in enhanced agricultural development and optimisation of the use of the sub-region's scarce resources. The Food and Agriculture Organisation of the United Nations, with significant technical input from the UWI Faculty of Agriculture during the conceptualisation and planning, undertook the Caribbean Rural Development, Advisory and Training Service project (CARDATS) in the Leeward and Windward Islands. CARDATS was an attempt at a saturation approach to rural development, with extension and other relevant organisations all focusing their resources on a specific geographic community in order to speed up its development in the short to medium term, before transferring the focus to another community. The CARDATS experiment resulted in some positive benefits in several island communities, but it never really realised its anticipated potential.

The French Technical Mission (FTC) was also testing a Farming Systems approach during this period. Like CARDATS, the scope was limited to a specific region or district in each territory. The approach consisted of an initial analysis of typologies of farms, the identification of problems among the various typologies and the development of an action plan to address these problems. Like CARDATS this approach provided benefits to those areas in which it was tested. However it was not replicated outside the test areas because of the high financial and human resource inputs required for its successful implementation.

The World Bank made a brief intervention in Grenada to test a modified training and visit methodology. According to the final report submitted by the consulting group responsible for the project, implementation of the modified T&V approach was not successful because of the simultaneous implementation of another project, viz. the Caribbean Agricultural Extension Project (CAEP).

The CAEP was the major intervention in agricultural extension development in the 80s. The project was instituted at a time when extension organisations in the Eastern Caribbean were all exhibiting low staff motivation, high staff turnover and other signs of low morale and inefficiency. With funding from USAID and the collaboration of the Midwest

Universities Consortium for International Activities (MUCIA), the UWI Department of Agricultural Extension developed and executed what the end of project external evaluators termed *"the most successful agricultural extension project'.*

CAEP employed a systems approach in analysing the components of the extension process, in identifying the relevant associated elements, and in establishing the necessary linkages between elements to facilitate efficient and effective extension functioning. CAEP assisted each of the participating Eastern Caribbean States, for the first time in their history to:

(a) Conduct an in-depth institutional analysis of their agricultural extension and related systems.

(b) Develop an National Agricultural Extension Plan, complete with philosophy, objectives and strategy to guide the formulation and functioning of extension projects. These national plans recognised the over-riding educational function of extension of explicitly removed from extension all responsibility for regulatory functions.

(c) Establish extension planning and monitoring committees at the national and community levels. These committees provided opportunities for extension linkages with research, marketing and specialist agricultural and related services, all of which were represented.

(d) Establish an annual award scheme for recognising excellence among extension workers.

(e) Establish an organised system of extension programme planning and execution, monitoring and evaluation. These programmes specifically included provision for the training of staff as well as farmers.

At the regional level CAEP assisted the countries in establishing a Regional Agricultural Extension Coordinating Committee (RAECC), with agricultural extension, agricultural administration and farmer representation from each state. CAEP met every eighteen (18) months. Regional agricultural institutions and organisations, including research organisations like CARDI, participated in RAECC meetings. To further facilitate the research/extension linkage and the coordination of research in the region, a Technical Joint Action Committee (TJAC) was established with representation from all recognised research organisations and institutions (including the UWI Faculty of Agriculture) and key extension organisations. TJAC held its meetings at the same venue as, and immediately following, the RAECC meeting.

CAEP's strength lay in its emphasis on human resource development, its holistic approach to agricultural extension programme planning and execution, and its approach to agricultural extension programme planning and execution, and its attention to the provision of both methods and materials for improving the efficiency of extension. In addition to the provision of training in all aspects of extension methodology and process, the project provided a range of tools, equipment and vehicles which facilitated the work of extension. Several methodologies were tested and successfully adapted for use in the local environment. The sondeo or rapid

reconnaissance survey used mainly in farming systems research was modified and used as an extension needs assessment technique. A Farm and Home Management extension approach was used to help improve the quality of farm decision-making among farm families. A Demonstration District approach was used to test the overall effectiveness of the CAEP package of extension methodologies. A Regional Extension Coordinating Unit (RECU) was established to provide support for the newly created communication units in the various country Ministries of Agriculture. CAEP impacted significantly on the organisation, process and practice of extension in the islands. In commenting on the overall impact of CAEP, the external evaluation team stated that *"The island extension services have been largely transformed from their previous unfocused, ineffective state into well organised, potentially highly effective systems."*

CONSOLIDATION

During the late 1980s most of the projects/interventions came to an end. The activities of CARDATS were continued in a reduced manner under CARDI. The French Technical Mission changed direction to provide technical assistance to island Ministries of Agriculture. CAEP was phased into a new collaborative project with CARDI, viz. the Agricultural Research and Extension Project (AREP).

For the Department of Agricultural Extension,, the UWI Faculty of Agriculture's component in this collaborative project, AREP provided an opportunity for consolidating the CAEP methodologies and strengthening the organisation and management of extension in the islands. Focus was therefore placed on five areas:

1. Farm and Home Management Extension Approach
2. Task Force Approach
3. Joint Focused Programming
4. Modular Training
5. Development of Professional Extension Organisations.

FARM AND HOME MANAGEMENT EXTENSION APPROACH

The *raison d'etre* of this approach is that in most farm families decisions taken about the home affect the farm, and vice versa. The approach allows for a careful examination of the farm family's overall situation and, together with the extension officers and other social partners, for the development of an action plan by the particular family, or farm family cluster where necessary. Record keeping and home business planning are important elements in this approach.

This approach makes it possible to better understand the decision making process of farmers, why they adopt certain parts of technological packages and reject other parts. The need for accurate record keeping poses a problem, however. As a rule farmers do not keep records, and the low levels of literacy found among many farming communities further aggravates the problem.

Other problems encountered with this approach during the years of consolidation are low interest by some extension workers and supervisory personnel and the lack of an available mechanism for data analysis and the

provision of feedback to farmers. A computer package for the analysis of farm records was developed under AREP but the use of the package was thwarted by the lack of suitable hardware to process the data. In spite of all these difficulties, the Farm and Home Management approach surpassed its objectives as set out under AREP The foundation has been laid for the continued application and use of this approach.

THE TASK FORCE APPROACH

The Task Force approach had its roots int he activities of CARDATS in Montserrat. It was developed out of the necessity for greater coordination int he organisation of agricultural production and marketing in that island. Today the Task Force approach has been strengthened by the use of the CAEP-modified sondeo which is used primarily to develop and test the suitability of commodities for introduction into the farming production system of a community.

Individuals on a Task Force come from various organisation and/or unit, and it is not uncommon to encounter problems of leadership and project ownership among Task Force teams.

JOINT FOCUSED PROGRAMMING

Joint Focused Programming was introduced to address a dilemma associated with the use of the sondeo. Although it was proven to be a very effective needs assessment technique the sondeo has been severely criticised because of the frequent lack of follow-up action Joint Focused Programming provides a mechanism for follow-up action. Briefly, it requires that Ministries of Agriculture undergo an organisation shift to allow for them work during all stages of programming. It also employs the strategy of projectizing the commodities to be focused.

Joint Focused Programming and the Task Force Approach use similar processes. The difference is in scope. Whereas the Task Force is limited to one or a small group of commodities, Joint Focused Programming covers a broader range of commodities and requires organisation and management shifts within Ministries. The Task Force can be used as a strategy within Joint Focused Programming to accelerate the organised production of a commodity or a group of commodities which are included int he overall programme of a Ministry of Agriculture.

In the territories where Joint Focused Programming has been tested and used it is claimed that the impact of extension is more easily measured. Even with its teething problems Joint Focused Programming shows signs of tremendous potential for addressing the problems of poor research/extension linkage, overlapping of the functions of technicians in the field, and generally in the conservation and more efficient utilisation of both human and financial resources.

MODULAR TRAINING

The need for sending clear, unambiguous messages to the farming communities became evident as far back as in the days of the WIECRP. In examining the dissemination of a pawpaw teckpak in Grenada, Campbell

(1990) found that the comprehension of the contents of the package and the level of importance placed on the components of the package varied significantly among researchers and extension officers involved in the transfer of the technological package. To address this problem of incongruent perception modular training was introduced.

Modular training consists of the development and use of educational materials designed to minimise *'noise'* in message transfer. A module generally consists of a production guide developed jointly by researchers, extensionists and lead farmers, a video, a slide-tape set, transparencies, and a flip chart set. Both researchers and extensionists are trained in how to use the modules for farmer education. The extent to which the total package is developed depends on available resources, both human and equipment. The FAO supported Rural Communication Centre in Dominica and RECU in Trinidad both provide great support in the development of modular packages. Modular training has the advantage of making use of the available agricultural knowledge system and, because of the different components of the package, it is very versatile in use. One disadvantage experienced is the tendency to over-emphasis the use of video as an educational tool.

DEVELOPMENT OF PROFESSIONAL EXTENSION ORGANISATIONS

The problem of *'image'* is of major concern to extensionists in the region. CAEP addressed this area of concern by developing the Excellence in Extension programme at both national and regional levels. An offshoot of this programme was the development of professional extension associations. These associations have made great strides in improving the image of extension in the region. Today they are consulted by administrators and Government Ministers on matters concerning agricultural development generally, and agricultural extension development in particular. The survival of these associations is however threatened by problems of ineffective leadership and lack lustre programmes which do not challenge or attract the interest or members.

THE FUTURE

Extension in the Eastern Caribbean has come a long way and has made significant progress, particularly during the past three decades. However, it is still faced with several adjustment programmes. A major concern of virtually all parties is the need to increase very significantly the impact of extension on national agricultural development. The following options are offered with this concern in mind.

PRIVATISATION OF EXTENSION

The very mention of the word privatisation raises fear among extensionists because they view this option as leading to a loss of jobs. Privatisation as proposed here may mean a loss of jobs but, more importantly. It means the putting into place of mechanisms for improving accountability, providing for rewards based on performance, and generally providing for increased efficiency in the management and functioning of extension.

It must be emphasized that privatisation will not solve all the problems of rural development. What it will do is to provide a mechanism for improving the efficiency of resource utilisation and increasing the overall impact of extension. A privatised extension system will not be. people oriented. It will of necessity be commodity oriented. For this reason there will be a need for setting up rural development agencies, or for making fuller use of such existing agencies in addressing human development problems. Non-Government Organisations (NGOs) can play a very useful role in this area.

UNIFICATION OF EXTENSION SERVICES

In the Eastern Caribbean, particularly in the Windward Islands, several extension services exist in parallel. Given the limited and dwindling resources available to extension in the Islands, the frequent overlapping and duplicate of functions and the confusion created among the client formers, it is recommended that unification of the extension services in individual countries be looked upon favourably as an adoptable option. It is further suggested that in order for unified extension systems to be viable and effective they should be organised and administered outside of the control of Public Service Ministries of Agriculture

A REGIONAL EXTENSION ORGANISATION

The Secretariat of the Organisation of Eastern Caribbean States (OECS) has established an Agricultural Desk to coordinate agricultural activities in the sub-region. It is suggested that in order to synchronise the national agricultural programmes within the sub-region a management system be put in place for the development and implementation of sub-regional agricultural programmes. A sub-regional extension organisation should form part of that system. The UWI Department of Agricultural Extension could play a key role in the organisation and implementation of such a system.

CONCLUSION

In conclusion, agricultural extension in the sub-region has come a long way from what existed in the early years of this century. It is now time for consolidating the progress and achievements made and preparing for future developments. There is a clear need to greatly increase the impact of extension in order to meet the increasingly complex demands of this decade and the years beyond 2000. A careful choice of one of, or a combination from, the options proposed above, will provide the means for meeting the challenges ahead.

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