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Extension implications of agricultural diversification in the OECS States

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The unstable economic situation of monoculture due to markets and weather conditions has pushed and is pushing the policy makers of the OECS States to adopt a new strategy of agricultural development - crop diversification. The programme of crop diversification varies from island to island and at times crop diversification and import substitution are viewed in the same light. As a result of this new thrust, extension programmes are being oriented to meet this need. However, the implementation of these programmes is hindered by: (a) the high price currently received for bananas; (b) the unavailability of a technological package with a strong economic component; (c) the unsuitability of the programme to meet family goals of a continuous cash flow; (d) the unwillingness of farmers, especially the young farmers, to invest in crops with long gestation periods; (e) the inability of extension workers to fully internalize the economics of crops with long gestation periods, i.e., discounting techniques, and thus to deliver an effective programme; (f) the goals of most crop diversification programmes - e.g. to have a certain number of trees planted within a certain time - conflict at times with land capability and land use policy. There is need for a re-examination of crop diversification programmes given their importance to the economy of the islands.

Keywords: Diversification; Extension services; Farmer goals.

Introduction

The economies of the Organization of Eastern Caribbean States (OECS) are based on agriculture which not only provides the greatest share of GDP but also employs the highest percentage of the labour force. In these states, agriculture must also be seen as an important contributor to the socio-cultural life, because the majority of people engaged in agriculture regard it not only as a business, but also as a way of life.

All OECS states are now developing and implementing agricultural diversification projects because they see a threat to their economies which for the most part are based on a few commodities that have unpredictable markets. This new project direction is especially true in states that practice a monoculture which is susceptible not only to market fluctuations but also to the vagaries of the weather. If the threats to these economies were to materialize, the consequences would be economic as well as social - destroying the very social fabric of the societies. Hence, the importance of agricultural diversification cannot be over-emphasized.

Participation of two groups of people is critical for successful implementation of any diversification project. This paper presents a sampling of such projects, highlighting the participation of the two groups in terms of their abilities to understand project goals, to be convinced, to deliver and to implement the recommendations.

Agricultural diversification projects

There is a clear difference between diversification projects in the Windward and Leeward islands. The Windward islands are mainly tree crop oriented (for example, coconut, coffee, and non-traditional fruits such as soursop, pawpaw, mangoes, avocado, and passion fruit) whereas the Leeward islands are livestock oriented. One reason for this difference is climate. The climate in the Leewards is much drier than that in the Windwards and readily supports a livestock production system.

Agricultural diversification programmes are also either export oriented or import substitution oriented. In the Windwards for instance, vegetable and livestock production are primarily import substitution projects, while tree crops are for the export market. In the Leewards however, vegetable and livestock production are both for export and home consumption (import substitution). The projects with export orientation as their major goal are funded mainly by foreign sources (Table 1). The main funding agencies are the British Development Division (BDD), European Development Fund (EDF), United States Agency for International Development (USAID), Organization of American States (OAS), Canadian International Development Agency (CIDA), International Bank for Reconstruction and Development (IDBRD) and Caribbean Development Bank (CDB).

Each of the above funding agencies has its own agenda and vision of development and as this paper will point out later, the agenda and/or vision does not always fit into farmers' goals and visions. This is often a dilemma for these well intentioned programmes. Following are some examples of diversification projects in the Windwards and the Leewards.

Grenada

Agricultural rehabilitation and crop diversification project: This project is aimed at revitalizing the agricultural sector through: (a) rehabilitation of the existing major export crops - nutmeg, bananas, sugar cane and; (b) introduction of new crops for export - mainly non-traditional fruits such as mango, avocado, soursop.

The project was developed without consultation with the farming community and as a result, the implementation is proving to be more difficult than expected. Although there is island wide increase in activity in the production of the crops targeted for rehabilitation and revitalization under this project, this increase cannot be said to be as a result of the project. The price of nutmeg went up, making it more profitable to harvest and maintain nutmeg trees. Also the price of bananas is now regarded by farmers as attractive, thus farmers are going into banana production, regardless of the threat of moko disease on the island.

Sugar cane, however, has been experiencing problems. The farmers are being asked to grow sugar cane but the infra-structure for production is not in place. For example, roads, land and tractor service. The extension officer is placed in the predicament of convincing the farmer to go (once again) into the production of a crop although the necessary support is lacking. In some cases, the extension officer is asked to explain the land tenure situation - answering the question, "why is the Government encouraging us to go into sugar cane production when it is not willing to regularize our land situation?" In most cases the extension officer is unable to provide answers because these decisions are not taken at his level or, as is so often the case, the decisions are not communicated to him.

Table 1 List of some agricultural diversification projects in the OECS (CIDA 1987)

Country	Project	Funding (Executing) Agency
Antigua/Barbuda	Livestock Improvement 1984 - 1987	USAID
	Income Generation (Production of sheep, goats and rabbits)	OAS
	Bethesda Vegetable Production	BDD
	Vegetable Production	Taiwan Govt.
St.Kitts/Nevis	Yam Multiplication	BDD (CARDI)
	Livestock Improvement	BDD
Montserrat	Separate Irrigation projects at various locations (i.e.):	
	Lees	CIDA
	Trans Farms	EDF
	Rodericks' Small Farms Irrigation Scheme	USAID
Dominica	Tree Crop Diversification Programme Phases I, II & III	BDD
	Coffee Development - Phase I	BDD
	Coconut Rehabilitation and Expansion	CIDA
	Lime Rehabilitation	EC
St. Lucia	Tree Crop Diversification Programme Phases I & II	BDD
	Cocoa Rehabilitation Programme	USAID
	Black Bay Vegetable Project	UNDP (CARDATS)
St. Vincent	Mango Top Working, Phases I & II	BDD
	Livestock Development (Diamond Estate)	EC
Grenada	Agricultural Rehabilitation and Crop Diversification	IBRD/CDB
	Cocoa Rehabilitation	CIDA

On the other hand, the introduction of the non-traditional fruits for export - mango, avocado, soursop - is being implemented without much setback. This is so, because of the lucrative Trinidad market (although this market is now dwindling). In fact, without any campaign from the Ministry of Agriculture the hucksters generated such a thriving trade that in 1985 the export of these fruits was the largest contributor to agricultural export earnings of EC$17 million. This was a dramatic increase over the EC$3.8 million earned in 1982.

The extension worker's task was made easy because of the available market for fruit crops. There is however, the problem of farmers planting these fruit trees on lands which are better suited for another crop. This problem goes beyond the extension worker's control because he has no jurisdiction over the farmer's private property. The situation is more controllable when a subsidy is involved. (This was not the case in Grenada.) For instance, if the farmer does not follow the recommendation, then the subsidy would not be given. It is important to stress here that subsidy is not a panacea. It is known that farmers on receiving subsidy either neglect the plants or remove them to other areas.

The cocoa rehabilitation project: Grenada's cocoa rehabilitation is aimed at reintroducing new vigour into the cocoa industry. The project is island wide and is run separately from activities of the other cocoa organization - the Cocoa Growers Association.

To qualify as a participant in this project, the farmer has to destroy all his cocoa plants in the specified area to be rehabilitated. Clonal plants along with fertilizer and other inputs are then supplied to him. The rehabilitation project has its own extension officers. These officers perform both regulatory and educational functions.

So far, the project has had its setbacks. Farmers are resisting the total destruction of all plants in the project area. These farmers do not get their supply of plants. In fact, the situation got out of control because while the farmers were asking for plants and were finding them difficult to obtain, the project propagation station was dumping overgrown plants because extension workers claimed that farmers were not ready to receive them. This can clearly be seen as a conflict between goals and agenda of project administrators and farmers. The situation also created conflict between farmer and extension worker.

Dominica

Tree crop diversification programme: This programme, like Grenada's Agricultural Rehabilitation and Crop Diversification project has national implications. The programme is aimed at the introduction of non-traditional fruit trees to farmers' holdings. The project has a target acreage and as such, the number of plants in the ground or distributed becomes an important consideration for project success. Although other factors like proper site selection, correct spacing and maintenance are part of the project staff responsibility, these factors become difficult to control once the plants are issued to the farmers. In fact, preliminary results from this project indicate that farmers are doing the minimum to obtain whatever subsidy is provided. At the end of the subsidy, most of the recommended practices are discontinued. The project extension staff is finding it difficult to convince farmers to continue maintaining their orchards. The problem here is a question of conviction on the part of the farmers. Apparently, farmers entered the programme for the subsidy provided, especially the cash subsidy. This cash subsidy provides an important source of working capital for the farm.

Antigua

Bethesda Vegetable Production Project: This project is aimed at using irrigation techniques in the production of vegetables for the export and local markets. The project has important diversification implications for Antigua because of the strong dependence on the livestock sector. The success of this project, like any other diversification project, depends heavily on the market. Extension workers' involvement as a catalyst to the production of these crops is therefore critical because of the uncertainties of markets.

The above examples describe diversification initiatives that were developed outside of the farming community and the farmers' system. Diversification also occurs within the farming community without outside intervention. An example of this can be seen in Grenada, where there is a definite shift in cropping systems among farmers.

Young farmers are more prone to accepting short term crops - for example, vegetables and bananas. As farmers grow older they shift their cropping system to more permanent crops such as cocoa and nutmeg; the reason being greater security in their old age.

Implications for Extension

Because of the different types of diversification in the OECS states, the implications are obviously different. In general though, initiatives from within are more easily handled by extension agents when the farmers have themselves already taken the decision to diversify. The task then is one of guiding the farmers to make the best possible use of the land and return to capital investment.

Diversification initiatives from the outside are fraught with problems. In the Windwards, selling diversification today is extremely difficult if the crop involved is not bananas. In St. Lucia, where banana is the main crop, tree crop diversification programmes are proceeding at snail's pace, even though subsidies are given out. Farmers are more interested in the immediate benefit that can be derived for an enterprise. Many, if not all, of the crops introduced do not satisfy the farmer's objective of a steady cash flow. From the farmer's point of view, the substituted crop must provide that steady cash flow. The longer the gestation period of the substituted crop, the more difficult it will be for farmers' acceptance.

Further, extension officers are not adept in discounting techniques, a tool necessary for analysing crops with long gestation periods. The Caribbean Agricultural Extension Project (CAEP) has been emphasizing these techniques during its annual in-service training programme in the Windwards and more recently during its Farm and Home Management Training. However, to date, one can say that only the surface has been touched. The problem therefore is that extension agents have not fully internalized the economics of crops with long gestation periods. In fact, the economic component is seldom, if at all, highlighted for extension workers.

A review of most diversification initiatives in the OECS states would indicate that the economic benefits to the farmer are left out. None of the project promoters are giving extension workers clear indications of cost and benefits. The projects are being sold as "something good for the nation". Such a project marketing pitch is not enough and is creating serious implementing problems. In some instances, not even the markets for the introduced crops are clearly worked out for example:

- where would the Windward islands sell their mangoes and avocados? or, the Leeward islands their vegetables?
- who will be responsible for the organization of the market?

These are some questions that farmers are asking in response to tree crop diversification initiatives.

Finally, one observes that most tree crop diversification projects are creating land use problems which go beyond extension. The fact is, that numbers of plants and acres are the main objectives of the project. Extension officers are therefore motivated to distribute as many plants as possible, thus giving an indication of acreage planted. It is not uncommon to find that these plants either end up in a storage place or are planted at incorrect spacing and

incorrect location. At the same time, the project can be seen as successful in terms of desired project output - acreage to be planted was attained. Yet, serious long term effects on national development are likely as most of the more arable flat land will be taken up by tree crops and the slopes will be left to be farmed.

Conclusions

Agricultural diversification initiatives should continue to be an important agenda item in agricultural development in the OECS states. The aim of these initiatives is to establish economic stability within the region. However, development and implementation of projects should take into consideration the local socio-economic and cultural dynamics within the various states. The differences are sufficient to justify separate considerations.

There should be dialogue among farmers, extension workers and policy makers before and during project development and implementation. A training programme should be mounted to allow for sensitization and internalization of the technical and economic ramifications of these programmes. Finally, diversification projects should be designed so as not to create a burden for the existing extension organization at the completion of the project. Project staff should be easily absorbed into existing extension organizations.

Reference

CIDA, (1987) Review of Agricultural Diversification in the OECS, Vol. 2. Published by Canadian International Development Agency, Ottawa