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 Subregional Headquarters for the Caribbean

REPORT OF A MEETING ON SMALL-SCALE
 AGRO-PROCESSING ACTIVITIES IN THE ORGANI-
 ZATION OF EASTERN CARIBBEAN STATES
 (St. John's, Antigua and Barbuda,
 5 - 6 March 1985)



UNITED NATIONS
 ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN
 Subregional Headquarters for the Caribbean

Report of a Meeting on Small-Scale Agro-processing Activities in the Organization of Eastern Caribbean States, St. John's, Antigua and Barbuda, 5 - 6 March, 1985

INTRODUCTION

This report summarizes the discussions and presents the recommendations of the meeting which was convened in St. John's, Antigua and Barbuda, 5-6 March, 1985 to consider a consultant's report titled "Evaluation of Cottage-Type Agro-Processing Industries in the LDCs of the Caribbean".

The survey and evaluation were carried out by the Economic Commission for Latin America and the Caribbean (ECLAC) Subregional Headquarters for the Caribbean as part of a project funded by the Government of the Netherlands to identify and evaluate the potential for Development of Rural Agro-based Industries in the Caribbean LDCs. The project area includes the islands which comprise the Organization of Eastern Caribbean States (OECS).^{1/}

I. BACKGROUND

The Caribbean is faced with the urgent need to develop and diversify the agricultural sector, provide employment and increase incomes with particular reference to rural areas. These problems are acute in the smaller islands of the Eastern Caribbean where the agricultural sector is dominant and where agro-processing remains undeveloped except for a few commodities such as sugar, arrowroot and coconuts. At the same time, there are a number of small-scale agro-processing activities which utilize only a part of the raw materials available for processing.

Because of these factors and the indications of some potential to improve and expand the existing agro-processing activities in the OECS, the Caribbean Development and Co-operation Committee (CDCC) mandated the Secretariat to carry out the relevant studies^{2/} to determine the potential of these islands to develop and sustain small-scale agro-processing using mainly locally-produced raw material inputs and which island has a comparative advantage for early establishment of a pilot commercial unit.

^{1/} Antigua and Barbuda, Dominica, Grenada, Montserrat, Saint Christopher/Nevis, Saint Lucia and Saint Vincent and the Grenadines.

^{2/} E/CEPAL/CDCC/96.

Organization

The meeting was organized jointly by the Economic Commission for Latin America and the Caribbean (ECLAC) Subregional Headquarters for the Caribbean and the Economic Affairs Secretariat of the OECS.

Participation

Participants included Produce Chemists and Government officials with responsibility for food processing in six of the OECS countries - Antigua and Barbuda, Grenada, Montserrat, Saint Christopher/Nevis, Saint Lucia and Saint Vincent and the Grenadines were present. Institutional representation included the OECS and CARICOM Secretariats, the Caribbean Association of Industry and Commerce (CAIC), the Organization of American States (OAS), the United Nations Industrial Development Organization (UNIDO) and ECLAC. A list of the participants is given at Annex I.

Objectives

The objectives of the meeting were:

(i) To consider a technical evaluation of the existing small-scale agro-processing activities in the OECS giving attention to, inter alia, the technology in use; the level of manufacturing practice; the product range and marketing arrangements;

(ii) To examine the operational and logistic problems which affect the commercial operation of the small-scale agro-processing units which use mainly local materials for processing;

(iii) To consider and make recommendations on the future activities of the project with the objective of promoting commercially viable small-scale, rural agro-processing with strong links to the primary production sector in the OECS.

Agenda and Documentation

The Agenda of the meeting is given at Annex II.

The working documents consisted of a consultant's report entitled "An Evaluation of Cottage-Type Agro-Processing Industries in the LDC's of the Caribbean" and the results of a Survey of ongoing agro-processing activities in the OECS.^{3/}

^{3/} LC/CAR/G.153.

II. OPENING SESSION

The opening address was given by the Honourable Robin Yearwood, Minister of Agriculture, Lands and Fisheries, Government of Antigua and Barbuda. The Minister welcomed the participants and stressed the need for strong links between agro-processing and the local primary sector and also the need for a viable relationship between resource use, production, technological capability and demand. The full text of the Minister's speech is given at Annex III.

Mr. Swinburne Lestrade, Director of the Economic Affairs Secretariat of the OECS outlined the OECS Secretariat perspectives and its role and function with respect to agriculture and agro-industry. Mr. Lestrade stated that the OECS Secretariat was pleased to co-operate with ECLAC in organizing the meeting and stressed the potential of agro-industries to contribute to the economic development of the OECS. The text of Mr. Lestrade's address is given at Annex IV.

Mr. Carle Walter, Economic Affairs Officer responsible for Agriculture in the ECLAC Subregional Headquarters for the Caribbean welcomed the participants on behalf of the Director of the ECLAC Subregional Headquarters for the Caribbean, thanked the Government of Antigua and Barbuda for hosting the meeting and expressed appreciation to the Honourable Minister and Mr. Lestrade for the attendance. Mr. Walter outlined briefly the reasons for initiating the project and the specific objectives of the meeting (see Annex V).

III. RESULTS OF THE SURVEY AND EVALUATION OF EXISTING AGRO-PROCESSING OPERATIONS

The survey showed that in the OECS, except for arrowroot, coconut and sugar-cane based products, primary agricultural production has been utilized for processing in small-scale operations only.

In general, agro-processing relates mainly to the food sector. However, in addition to arrowroot, sugar-cane and coconut products, there is the production of Sea-Island Cotton fabric from locally produced cotton in Montserrat and a small number of leather and forestry-based products - furniture,

artifacts and straw goods. In view of its importance, this report places emphasis on the fruit and vegetable based food processing subsector.

The existing small-scale agro-processing activities may be sub-divided into the following categories:

(i) Home Industry: Usually one-person kitchen operations with occasional help using standard domestic kitchen utensils. Production, marketing and procurement of raw materials are all ad hoc; usually the producer markets from his/her home with occasional sales to supermarkets and shops;

(ii) Pilot Plant: The Produce Chemists' Laboratories (PCLs) set up by governments are representative of this category. They are departments or sections of the Ministries of Agriculture, financed directly from the public service budget and their primary function is research into product development. Due to the slow rate at which processes proven in the laboratories are being commercialized, some PCLs carry out pilot commercial activities selling the output on the local market. However, the accepted policy is to cease production whenever private firms enter into production of specific products. Although the PCLs do not operate as fully fledged commercial units they promote agro-processing by demonstrating proven processes. They also disseminate research results, provide technical advice and limited quality control services to processors, thereby addressing some of the constraints to further developments of the industry.

(iii) Cottage Industry: Small commercial operations using some patented equipment, with a maximum employment of 10-15 persons and operating usually on a year round basis. Procurement and marketing are fairly well organized and attention is given to specifications, quality control and packaging.

Home industries dominate the food processing subsector in the OECS, accounting for some 63 per cent of the units surveyed whereas cottage industries account for 30 per cent and pilot plants 7 per cent of the 60 units identified by the survey.

The range of processed products is similar both within and between islands reflecting the similarity in the available processable raw materials and the technology base. The usual product range includes jams, jellies,

marmalades, chutneys, hot pepper sauce, fruit juices and syrups, dehydrated fruit, deep fried chips, tomato ketchup and canned vegetable products.

There are four major constraints which the agro-processors recognize as impediments to the further developments and efficiency of their operations. The percentage of processors experiencing the various constraints are:

- (i) Inadequate facilities:
 - (a) Equipment 50%;
 - (b) Operating Space 47%.
- (ii) Packaging - cost and availability, 45%;
- (iii) Lack of finance 43%
- (iv) Marketing 29%.

Processing technology, standards and quality control and also raw material availability were also identified as constraints by some processors.

Inadequate Facilities

Equipment

The equipment in use ranges from standard domestic utensils and kitchen stoves to small-scale processing lines including bottling and canning equipment. In most cases, the pilot plant and cottage scale equipment is of the type existing 20-30 years ago.

The equipment currently in use by the various processors includes:

- (i) Home Industry: Kitchen stove, domestic pots and pans, kitchen spoons, hand slicer, home blender, shop scale, strainer, collander, home refrigerator;
- (ii) Pilot Scale: Boiler e.g. 5 h.p., autoclave, steam jacketed kettle, pulper/finisher, solar dryer, blender/emulsifier, comminuting mill;
- (iii) Cottage Industry: Can seamer, can reformer and flanger, retort, boiler, gravity feed filler, jacketed steam kettle, autoclave, pulper/juicer, mixing tank, cooling tank, piston filler, semi-automatic labeller, packing tables, hand-operated pallet truck.

Operating Space

There is a general lack of storage facilities and limited production space. In the home-type operations, kitchens and garages are often utilized as storage facilities. This places an additional constraint on production

and even if marketing opportunities increased in the short term, it would be impossible to grasp these opportunities as packaging and raw material stocks cannot be maintained with the present facilities, neither can production be expanded with the limited production space available.

Packaging Material

The unit cost of packaging is often high and availability erratic due to the lack of local supplies, the difficulties with procurement and importation of the small quantities required by individual processors and the inability of individuals to finance large orders. Consequently, with the exception of one cottage industry each in Dominica, Saint Lucia and Saint Vincent and the Grenadines, and the PCLs in Antigua and Barbuda, Grenada and Saint Vincent and the Grenadines, the agro-processors in the OECS generally use recycled glassware and recycled cartons. These units themselves sometimes use recycled glassware for some products for certain target groups.

Finance

Most of the small-scale processors have limited access to finance mainly because their production, inputs and marketing operations are not organized as expected of a commercial enterprise. Also, most are unable to provide the required collateral, balance sheets and projection analyses of prospective business.

Marketing

Marketing is not well organized. Small lots are produced to meet specific orders and to satisfy what is fundamentally a limited captive market. Some processors have been able to get space on local supermarket shelves but most market directly from their production site.

There is almost total dependence on local and subregional markets. However, at least three cottage scale processors have been able to penetrate the CARICOM market, and to a lesser extent, extraregional ethnic markets.

The lack of market penetration is due not only to the constraints mentioned above but also to the openness of the small local markets to competition from large extraregional suppliers, to the failure of the processors to improve the technology used and lack of a vibrant commercial approach.

Technology

The technology in use within the subregion is basically empirical with a high manual input. All or some of the following operations are performed manually: washing, peeling, slicing, coring, crushing, juicing, filling.

This type of empirical approach - handed down and kitchen developed formulations, some of which are quite good and has led to variations in product from producer to producer - hence a range of products with the same name but varying in colour, texture, consistency, etc., with every industry operator, convinced that his/her product is the correct and best one.

Whereas the high manual input may have some benefits, this often reduces overall efficiency and the scope of operations, and in some cases lead to problems of quality control.

The heat treatments in the home operations are done using kitchen stoves while the Produce Chemist Laboratories, Orange Hill Estates in Saint Vincent and the Grenadines, Agro-industries in Saint Lucia and Bellot in Dominica use steam-jacketed kettles and autoclaves. Fortunately, the range of products manufactured are high acid, e.g. pepper sauce, chutney, tomato ketchup or high osmotic pressure foods, e.g. jams, jellies, syrups, etc., which retard the growth of micro-organisms, and as such are very stable. In addition these products are generally packaged in glass, enabling the purchaser a commitment to buy based on a visual examination. It should be noted that in the canning operations, the same situation does not exist and therefore time/temperature controls are most important during the sterilization stage of the operation. Unfortunately, permanent records of temperature control are not made routinely.

Finally, it was noted that in many cases, plant facilities do not provide conditions which make it easy to meet the requirements for a quality assurance programme. Taking the processors as a group, the following were observed:

- (i) The buildings were not designed specifically for food processing; there are often open spaces - doors, doorways, windows - conditions which make it difficult to ensure quality control;
- (ii) Some concrete floors in some cases were badly pitted;

(iii) The inplant sanitation programmes were often inadequate and difficult to implement;

(iv) The plant layout typically does not allow for a smooth flow of raw material from input to finished product, hence a loss of production efficiency.

The PCLs which usually function as Government Chemist and Forensic Laboratories at the same time have developed technologies for processing quite a range of local agricultural produce. However, the private sector has not taken up the challenge and transferred these available technologies into commercial operations. As a result of this lack of zeal from the private sector, some PCLs have become involved in cottage-type processing to utilize available material and keep the image of the laboratory alive.

In an attempt to expand the range of technologies available to the processor, simple and inexpensive solar dryers have been designed, constructed and put in place in most of the LDCs. Unfortunately, the design and capability of most of these units result in low drying efficiency and low volume throughput. An example of this is a drying system which takes a week to produce 15-20 lbs. of dehydrated banana "raisins".

Raw Material Availability

Raw material supply for the range of products produced at the cottage industry level is a constraint largely, and in some cases only, because these industries are usually located in the capital cities and hence have no meaningful link with rural farming communities with the notable exceptions of Orange Hill Estates in Saint Vincent and the Grenadines and Agro-industries in Saint Lucia which produce some of their own raw material and Bellot and Company in Dominica where contractual arrangements with farmers have been initiated.

In the CARICOM region, of which the OECS is a part, the post-harvest loss of fruits and vegetables is generally estimated to be 30 per cent of production, some of which is left unharvested. This would indicate substantial quantities of processable material within the project area. In addition to quality, other constraints associated with raw material supply include seasonal and annual fluctuations in the volume of supplies, relatively high unit prices. However, logistic problems with consolidation,

transportation and organized delivery from producer to processor usually constitute major problems with the supply of raw materials.

Usually, the processor obtains the raw material from the public markets and/or the government marketing organizations. This has two negative aspects for the processor and eventually the consumer:

(i) The price of the raw material is often higher than that for a direct farmer to processor transaction, hence the finished product is more expensive;

(ii) With the bad handling and lack of adequate storage generally experienced, raw material of low quality is often processed, and as a consequence the finished product is not of the standard and quality anticipated.

Plant Capacity Utilization

This factor was difficult to estimate objectively for the home processors and even for some of the pilot plants, in particular the PCLs since the processing operations are usually carried out in response to market opportunities and ready access to raw materials. However, the home processors often estimated their capacity utilization at 20 to 60 per cent; the pilot plants operate at approximately 50 per cent and the cottage industries 25-60 per cent. (See Document LC/CAR/G.153).

Employment

Data on employment were not readily available. The total number of persons employed in the small-scale agro-processing units surveyed was estimated at approximately 100. However, it was clear that, in most cases, employment was part-time and seasonal.

IV. STATEMENTS BY REPRESENTATIVES OF PARTICIPATING COUNTRIES AND AGENCIES

The country representatives gave a brief overview of small-scale agro-processing in their respective islands. Emphasis was placed on food processing and development constraints and also on the PCLs and support services especially for standards and quality assurance.

The Ministry of Agriculture in Montserrat has taken a decision to upgrade the existing PCL to function as a quality assurance unit, establish a pilot commercial food-processing enterprise and expand the acreage of selected agricultural commodities to supply the processing unit.

Grenada is seeking assistance to re-equip a pilot commercial food processing unit, to improve another small scale unit which processes locally produced spices and also to upgrade the PCL to provide analytical and quality assurance services.

In Antigua and Barbuda the PCL was established as an analytical laboratory to carry out analyses of agriculture and food commodities and also some forensic-related samples. Food technology was introduced and eventually small scale food processing to utilize surplus commodities. The dual role of analytical laboratory and food processing, carried out in separate buildings is now well established. The analytical equipment is being upgraded to overcome existing constraints, however, the processing capability must be improved and expanded if the unit is to become financially viable.

The PCL in Saint Lucia is not operating at present. Steps are being taken to reactivate the laboratory. Assistance is being obtained from the OAS for training and equipment.

The PCL in Saint Vincent and the Grenadines is not operating at present but steps are being taken to reactivate this unit also. The development of this PCL followed a pattern similar to that in Antigua and Barbuda: from an analytical laboratory to the dual role of analyses cum quality assurance and small scale processing to utilize surplus produce. When operations were suspended in 1984, processing was the dominant activity. When reopened, this PCL will concentrate on standardization, quality assurance and research toward the development of products using mainly local processable materials. The private sector will be encouraged to carry out the commercial processing.

A PCL was never established in Saint Christopher/Nevis. Assistance is being sought to equip a laboratory and train staff to carry out analyses of food and agriculture products with particular reference to microbiological contamination and quality assurance.

Although Dominica was not represented at the Workshop, it is known that the PCL there is not involved in processing. Emphasis is placed on analytical and quality assurance services, and most importantly on investigations in support of programmes which aim to develop the commercial production of certain essential oils.

The CAIC representative informed the meeting of the establishment of the CAIC Agro-Industry Task Force to address problems affecting trade in processed products under the new CARICOM Rules of Origin. Recommendations emanating from the Task Force include protection of local and regional markets for some processed products with emphasis on those which use mainly locally produced raw materials.

The CARICOM representative informed the meeting of the efforts to promote co-operation on science and technology between CARICOM countries, on-going studies on certain issues related to the commercialization of agro-industrial products, the identification of large scale joint venture activities and a market study on intraregional and extraregional trade possibilities for a range of agro-industrial products from the CARICOM region.

The representative of the Economic Affairs Secretariat of the OECS presented the outline of a proposal to establish a Central Bureau of Standards under the auspices of the Economic Affairs Secretariat which would serve various economic sectors including agro-industries. The project outline is given at Annex VI.

The UNIDO Senior Industrial Development Field Adviser informed the meeting that UNIDO had set up a Caribbean Technical Research and Energy Unit which could provide advice and technical backstopping to the agro-processing sector in the OECS. He expressed the view that a policy for the protection of local processors based on the concept of pioneer status, market development, access to updated technology and finance and the co-ordination of donor support were all necessary for the optimum development of agro-processing in the OECS. He also advised the meeting that UNDP proposes to fund a project which UNIDO will implement to upgrade the Produce Chemists Laboratories in the OECS with one laboratory being equipped as a pilot standards assurance unit.

The Director of the OAS Office in Antigua and Barbuda expressed concern over the continuing high levels of post-harvest losses being experienced in the OECS, and indicated that there should be greater co-operation and co-ordination between the small agro-processors in the OECS with particular reference to standards, marketing and procurement. The OAS has three ongoing projects which give support to the agro-processing sector:

(i) Upgrading of the Produce Chemists Laboratories in all of the OECS states mainly through input of equipment and technical training;

(ii) Collaboration with other agencies and the OECS islands to acquire solar drying technology and to develop facilities within the framework of a science and technology programme;

(iii) A study of economic and tropical plants which should provide useful supporting information to promote the development and use of indigenous plant products.

V. DISCUSSIONS

The consultant's report and the country presentations were discussed jointly. The participants agreed that the report of the survey and evaluation reflects the present status of small-scale agro-processing in their respective countries and consequently, endorsed the report.

The discussions centred around the following:

(i) Processable Raw Materials

The governments of all OECS countries place high priority on the development of their food processing capability in order to reduce wastage of produce and to contribute to the economic and social development of the islands.

All islands have processable materials which are not being used. Some islands have ongoing programmes to increase the production of various commodities, some of which are to be available for processing. Although various estimates indicate that local production of processable raw materials is not a serious constraint to expansion of small-scale food processing in the OECS countries it was recognized that raw materials in the field is not necessarily an indication of availability to the processor.

Effective links between the primary and agro-processing subsectors have not been developed in terms of producing the desirable varieties, reducing seasonality of production, and establishing systems for the collection and consolidation of produce and subsequent availability to the processor.

(ii) Processing Technology

The failure to commercialize processes which have been tested and proven by the PCLs for the use of local raw materials may be due to a number of factors including:

(a) The absence of programmes for the transfer of technology to the production sector;

(b) The absence of processing units utilizing modern production line technology which could serve to demonstrate the financial viability of commercially-operated small-scale processing units; and

(c) Existing home scale processors must invest substantial funds to upgrade their operations in order to use the improved technology and process certain local raw materials.

(iii) The Social and Economic Environment

The economic and social environment influences the human resource and hence the entrepreneurship of the population. Any proposals for the development of small-scale rural based agro-processing must give careful attention to the social characteristics of the target group, the technical capability of the people who will participate in the activity and also the economic conditions which affect both production inputs and the ability to market the processed products;

(iv) Complementary Production and Joint Marketing of Processed Commodities

Partial processing of similar commodities by a number of small processors with finishing being done on a national or subregional basis and the complementary production of similar products by a number of producers using standard production processes were considered attractive options for the OECS;

(v) Standardization and Quality Control

These are important if the options at (iv) above are to be considered and also for the successful marketing of processed commodities. Both local and export markets require assured supplies of quality products;

(vi) Markets

The small size of each local market and unrestricted entry of products of multinational corporations place constraints on the development of small-scale food processing since the small processor cannot compete in the market place;

(vii) The need for specific government policies to promote agro-processing and give reasonable protection to local and sub-regional products on domestic markets

It was considered that small-scale commercial agro-processing could not be developed without some measure of market protection;

(viii) The role and function of the PCLs

There was general agreement that the PCLs should focus on research and development, standards and quality assurance programmes and services to the production sector leaving commercial processing activities to the private sector or to public commercial enterprises;

(ix) Other constraints to the development of agro-processing with specific reference to the small entrepreneur were discussed

Those of most concern were access to credit; difficulties in the procurement of packaging materials, lack of technical expertise and knowledge concerning the type and specifications of equipment to meet specific needs; problems with maintenance of equipment and the almost total lack of access to information on development and opportunities in agro-processing.

VI. RECOMMENDATIONS

The meeting arrived at the following conclusions and recommendations:

(i) The apparent availability of processable raw materials, the known importation of finished products which can be replaced by local/subregional production and the decreasing capability to finance extraregional imports indicate a solid basis for the development of small-scale commercial food-processing in the OECS;

(ii) Further studies are required to determine the type and scale of operations with respect to the capability of individual and collective capability of the islands;

(iii) Production of processed products should be directed to the local and subregional markets in the first instance; production for larger markets should be concentrated on specialty products and a system of complementary production with built-in quality assurance;

(iv) In order to promote agro-processing, the OECS and CARICOM governments must formulate and implement a policy to ensure the protection of local and subregional products on domestic markets; governments must also create incentives to promote primary production;

(v) In association with (iv) above, governments must take positive action to ensure that entrepreneurs with viable agro-processing proposals have access to development financing on concessionary terms;

(vi) Recognizing the importance of donor assistance in the OECS and the present lack of co-ordination between the donors, the meeting recommended that a Regional Agro-Industry Co-ordinating Committee be established to co-ordinate all activities associated with small-scale agro-industries. The full text of this proposal is given at Annex VII;

(vii) With respect to the future role and function of the PCLs, the meeting recommended:

(a) That the PCLs should concentrate on product development, serve as standard assurance and quality control units and provide technical backup services to local agro-processors;

(b) The PCLs should not be required to operate as agro-processors since they lack the equipment, staff, financing and operational framework to do so efficiently.

(viii) An agro-industry information system should be established to keep the PCLs and processors informed of relevant developments in that sector, particularly within the region, and mechanisms put in place to facilitate communications between the agro-processors;

(ix) Greater use should be made of the technical and professional capability within the region for the development and technical assistance services to the small-scale food processors;

(x) Further studies should be carried out to develop systems and procedures for complementary processing to standard specifications, including partial processing with finishing being done at some pre-determined location(s); joint marketing; joint purchasing of inputs and the common use of technical services.

List of Participants

ANTIGUA AND BARBUDA

Mr. Hayden Thomas
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Ministry of Agriculture

GRENADA

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ECONOMIC COMMISSION FOR LATIN
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AGENDA

Tuesday 5 March 1985

1. Opening Session:

Mr. Lawrence Wells, OECS, Chairman

(i) OECS Perspectives:

Mr. Swinburne Lestrade, Director
Economic Affairs Secretariat, OECS

(ii) Opening Address:

Hon. Minister of Agriculture, Lands
and Fisheries

(iii) Objectives of the Workshop:

Mr. Carle J. Walter, UNECLAC

2. Working Sessions:

Dr. Hayden Thomas, Chairman

(i) Agro-Industrial and related activities in the OECS
with emphasis on food processing - Statements by
representatives of participating countries and agencies;

(ii) Presentation and discussion of the survey results and
report on the evaluation of existing cottage-scale agro-
processing activities in the OECS.

Wednesday 6 March 1985

Item 2(ii) continued.

(iii) Recommendations;

(iv) Future activities of the project.

Opening Address
by
The Honourable Robin Yearwood
Minister of Agriculture, Lands and
Fisheries,
Government of Antigua and Barbuda

Mr. Chairman, Participants of this Meeting:

I am happy for the opportunity to give the Opening Address at this Subregional Meeting that has as its specific tasks, the formulation of a strategy through which Agro-industries can become a reality in our sub-region.

In my mind, this meeting is of paramount importance in terms of the role Agro-industries will have to play in the transformation and development of our economies. While we are gathered here to deal with the specific tasks of agro-industry strategy formulation, this task will only be relevant if its ultimate aim is to structurally transform our economies.

An examination of the primary approaches hitherto and presently being used in our attempts to develop will reveal a wide gap in the requirements for development, and the meeting of these requirements using our present strategic approaches.

In agriculture, we have tried specialization in the production of commodities for overseas markets. Experience has shown that primary export production in this historical era, does not contain enough dynamic demand potential to transform agriculture. The income and price elasticities of the products are low; in addition, substitutes for our primary products always exist and production is un-coordinated among Third World Countries.

In manufacturing, the LDCs have, by and large, specialized in light assembly-type industries. While this approach has significant carry-over effects on the economy of our region, the carry-over has been insufficient to facilitate successful economic transformation. This no doubt is due to the transferring of the bulk of the value added abroad.

In addition, our present strategic approach to agriculture and manufacturing have a fundamental weakness; in that, there is no link between our domestic production and demand structures. This has caused foreign decision-making to play a critical role in our domestic employment, output, and income generation. The effects of the devaluation of the British Pound on our primary agricultural exports, the cutback of our U.S.A. sugar quota and the short life span of some of our light industries are all painful reminders of this fact.

Certainly, we need to establish material relationships between our resource use, production, technology, demand and needs. We also need to ensure that our exports are in the main an extension of our domestic needs and demands. This will give our economic system more internal autonomy as well as being better able to determine our capacity for sustaining growth and development.

This is the reason why this meeting to develop a strategy for agro-industries in the LDCs is of utmost importance. Agro-industries can ensure the vital linkages between domestic resources, domestic use, production, demand, needs and export. By creating these linkages, our economic system would have greater internal autonomy. Agro-industries can also ensure greater impact on our domestic economies than hitherto experienced from our light manufacturing sector, by ensuring that the bulk of the value-added remains within our own countries.

The agricultural commodities that have displayed the highest income elasticities of demand, and the most widespread consistency in the way in which they are consumed, as per capita incomes rise to intermediate levels are: dairy products, milk, eggs, cheese, butter, meats of all types, fruits and vegetables. When related to needs, these foodstuffs are also the most essential on nutritional grounds. These foodstuffs should then be considered in determining target products when formulating the strategic approach.

We must also be careful when formulating our strategic approach to weigh the benefits of importing products at cheaper prices, against the systematic distortion of our own development and suppression of the benefits to be derived from producing the commodity within our subregion. Prices can

only be rational and therefore useful in guiding production decisions, in so far as they reflect domestic constraints and domestic demand priorities. At all times we must be mindful of the urgent need for positive imperative action to develop our economies. However, action programmes must be guided by expert advice at all phases.

In the formulation of our strategic approach we cannot overlook the essential task of sensitizing our local business sector, especially the large wholesalers and retailers, of the vital importance of their support and participation in the drive for investment in agro-industries. The reluctance of large-scale importers and retailers, of the vital importance of their support and participation in the drive for investment in agro-industries. The reluctance of large-scale importers and retailers, despite their many years experience in business and the accumulation of large profits, to get into production must be examined, and a plan developed to combat this.

This reluctance on the part of the importers to enter into production is especially well known to us in Antigua and Barbuda and the Ministry of Agriculture. My Government has developed an excellent, small pilot Food Processing Unit, producing tomato paste and ketchup, jams of all types, nectar, sweets and wines, as well as drying and blanching vegetables. It is unfortunate that so far we have been unable to find a local private investor willing to take over the pilot project and develop it into a fully commercial enterprise.

The development of rural agro-based industries would create employment opportunities and a source of income for persons who have limited options to obtain such benefits. In carrying out this task of formulating a strategy for rural agro-industrial development, be especially careful to do a good job; the rural poor have waited long, they have suffered long, hoping for some national economic plan to impact directly on their lives; they cannot bear another failure.

The important task is now in your hands and I shall not detain you any longer from rising to meet the challenge it offers. And so, on behalf of the Government and the people of Antigua and Barbuda, I welcome all the participants of this Meeting to Antigua, and express appreciation of the

entire LDCs to the Economic Affairs Secretariat of OECS and the Economic Commission for Latin America and the Caribbean, for jointly sponsoring such a vitally important meeting which I now take pleasure in declaring open.

Annex IV

OECS PERSPECTIVES

Address

by

Mr. S.A.S. Lestrade, Director
Economic Affairs Division
Organization of Eastern Caribbean States

On behalf of the Secretariat of the Organization of Eastern Caribbean States, I should like to welcome all persons present to this two-day workshop on agro-industry processing. This workshop will examine the potential for the development of cottage-type agro-processing industries in the OECS countries. All persons here present will attest to the potentially large degree of importance of agro-industrial development in our Member Countries, and indeed Dr. Carle Walter of the ECLAC Subregional Headquarters for the Caribbean will shortly be elaborating on the particular purposes and objectives of the workshop itself. Suffice it for me to emphasize that the Secretariat of the OECS is necessarily very concerned with assisting in the development of activities in this area and because of this we have given our full support and co-operation to the ECLAC Subregional Office for the Caribbean in its own work on agro-processing industries and have been very pleased to be associated with them in organizing this workshop for officials of the OECS countries.

Agricultural and industrial development are two important areas that fall within the mandate of the OECS Secretariat. Over the past two years we have given much consideration to defining our role and functions in these two areas. In the area of industry, our role and functions are rather more easily defined, and consist of:

(i) Monitoring the functioning of the regional scheme for the allocation of industry, including the continuing identification of new industries and of ways and means of enhancing the viability of existing industries;

(ii) Monitoring the operations of the CARICOM scheme for allocating and promoting industries among the CARICOM Member States, and ensuring that the interests of the OECS countries are preserved under this arrangement;

(iii) Maintaining functional relations with international agencies such as ECLAC, UNIDO, CFTC and others with a view to enhancing the industrial development of the OECS Member Countries; and

(iv) Carrying out a specific exercise in project preparation and appraisal on behalf of OECS countries and institutions, and the execution of other technical assistance functions.

In agriculture, the Secretariat has had a larger amount of difficulty in defining its role and functions. Attention has been given to the expressed wish of some of our Member States that the Secretariat should acquire the capability for a more direct involvement in agriculture. However, decisions must be made in relation to the existence of a rather large number of regional and international institutions attending to the needs of agriculture, and against the Secretariat's own pressing financial difficulties. Even if the Secretariat's financial situation did not itself make this unlikely, the Secretariat's management would in any event have been most reluctant to establish a capability within the Secretariat in a way which would duplicate or too greatly overlap the functions and activities of the institutions. These considerations have argued for a rather more limited role for the Secretariat in the area of agriculture. Except that there is a certain role that falls logically to the Secretariat to carry out. For example, there is an advisory role to be carried out in matters such as proposals relating to the CARICOM Common Protective Policy for agriculture; the question of the interests of the Windward Islands Banana Industry within the context of the Lomé Convention; and other areas where there may be particular OECS interests that require attention. The Secretariat's role and functions in agriculture therefore, appear to be the following:

(i) To continually review the activities of the regional institutions serving the agricultural sectors of the Member States, and to ensure the continuing relevance of their programmes to the agricultural problems and needs of the OECS countries;

(ii) To maintain functional work relations with these agricultural institutions with a view to ensuring the Secretariat's access to their resources as needed;

(iii) To advise the Member States of the OECS on matters of regional policy and programming, such as the Common Agricultural Policy and the Regional Food and Nutrition Strategy;

(iv) To assist the Member countries of the OECS in preparing project proposals for submission to international funding agencies;

(v) To provide specific assistance on an ad hoc basis to the agricultural sectors and institutions of the Member States;

(vi) The continuing identification of projects in the agricultural sectors of the Member States, in particular those that permit of joint or co-ordinated efforts;

(vii) Assisting in the co-ordination of the activities of donor agencies operating in the agricultural sectors of the Member States;

(viii) Assisting in the organizing of appropriate training and agricultural manpower development;

(ix) Representing the interests of the OECS States in regional and international fora and assisting in pursuing decisions emanating therefrom.

It is fair to observe, with regret, that agriculture is the one sectoral area where the Secretariat is currently understaffed. The position of Senior Agricultural Officer which fell vacant in the second half of last year is not expected to be filled before July. The Secretariat has however, by appropriate reallocation of staff duties been able, for example, to play a major role in advising the OECS Member States in regard to the Common Protective Policy for agriculture and in so doing to ensure a more informed approach to this issue on the part of the OECS countries.

The Secretariat has recently formalized its own relationship with the ECLAC Subregional Headquarters for the Caribbean, a Memorandum of Understanding between the OECS and ECLAC having been approved by the OECS Governments at their Meeting in Dominica in May 1983. The concrete manifestation of this formal relationship is the location at the Central Secretariat in Saint Lucia of Mr. Silbourne Clarke, whose terms of reference include, in addition to the carrying out of specific technical assignments on Customs Union and other issues, serving as the co-ordinator, and link person between the OECS

and the ECLAC system. This is a relationship which has so far been working very satisfactorily and which has proven to be very useful, and we view this workshop as a further intensification of this relationship.

Agro-industrial development is clearly an area that now needs to be given a considerable amount of emphasis. In this regard, we commend previous efforts of institutions such as the CDB and the CAIC. It is important that this work be allowed to continue, because by comparison with industrial sub-sectors such as garment manufacture or electronics assembly, agro-processing industry may be something of a poor relation. I have for a long time believed that the produce chemist laboratories in some of the OECS countries could constitute a useful base on which to construct a more full blown strategy for agro-industrial development. The ECLAC effort has commenced, logically, with a critical evaluation of what now exists. It is very much to be hoped that this workshop can assist in giving direction to further work in this area.

I wish finally to repeat my welcome to all participants in this workshop and to wish it success.

Statement by Mr. C.J. Walter
Economic Affairs Officer
(Agriculture)
ECLAC Subregional Headquarters for the Caribbean

Mr. Chairman, Honourable Minister, Mr. Lestrade, Participants.

On behalf of the Director of the ECLAC Subregional Headquarters for the Caribbean I would like to welcome you all to this meeting. I am particularly pleased Mr. Minister, for your presence and for your most informative address. Please also accept the appreciation of my Director to the Government of Antigua and Barbuda for hosting this meeting. I must also express appreciation for the support and co-operation of the Economic Affairs Secretariat of the OECS in co-sponsoring the meeting which comes at a time when the Caribbean is faced with the urgent need to develop and to diversify the agricultural sector, to provide employment opportunities and to increase incomes with particular reference to the rural areas.

The development of rural agro-based industries appear to offer opportunities for linkages between the primary and the agro-industrial sector, reduce the very high rate of post-harvest losses in fruits and vegetables, create employment opportunities and a source of income for persons who have limited options to obtain such benefits.

The trend of the last two decades for many developing countries to base their agro-industrial development on the use of imported semi-processed materials has created situations in which minimal economic benefits accrue to the local population. Quite often rural people and their primary products are excluded from the agro-processing sector. This means that potential linkages and incentives to promote primary production are not realized. Further, the development and use of indigenous technical expertise remain in the conceptual stage.

At the same time, the agricultural and agro-industrial sectors continue to show the following characteristics:

- (i) Significant wastage of primary agricultural products;
- (ii) A poorly developed agro-industrial sector - but a sector having a relatively large number of small inefficient operators;

(iii) Thirdly, a number of institutions in the Caribbean have developed or have adapted and proven technologies which are suitable for application by small-scale agro-processors.

It is against this background that the ECLAC Subregional Headquarters for the Caribbean has set out to examine, in detail, the potential to develop agro-industries in the smaller islands of the Caribbean, i.e. the islands which comprise the Organization of Eastern Caribbean States (OECS).

The long-term objective is to promote the development of agro-based industries with strong links to the primary sector and with the fullest possible participation of rural people.

In order to achieve this objective it is necessary to know what is actually taking place in the agro-processing sector, what we do in fact have to work with, and what we can objectively set out to achieve.

During this Workshop we will look closely at the existing agro-processing activities in the OECS. Our working document will be a technical report prepared by a Caribbean consultant who has wide experience in agro-industry in the subregion.

The output from this workshop will provide the framework for follow-up activities which will examine among other things the feasibility for successful agro-processing in the various islands of the OECS and identification of the island which has a comparative advantage for early establishment and operation of a pilot commercial plant. It is expected that the pilot plant will provide answers to the operational and logistic problems concerning the commercial operation of small-scale agro-processing using mainly local and/or subregional raw materials.

ORGANIZATION OF EASTERN CARIBBEAN STATES

Draft Project Outline
Prepared by the OECS

1. Project Title:	OECS Standards Bureau	
2. Project Carrier:	Organization of Eastern Caribbean States (OECS)	
3. Project Implementation:	Economic Affairs Secretariat (EAS) OECS	
4. Project Financing:		US\$
(i) Foreign Financial Assistance (Grant Agency)		?
(ii) Foreign Technical Assistance (Aid Agency)		?
(iii) National Counterpart Contributions (National Government)		<u>?</u>
	Total	<u>?</u>

5. Project Description

The project will consist of a Central Bureau of Standards under the auspices of the Economic Affairs Secretariat. This unit will undertake the centralized management of standardized activities within the OECS. This unit will consist of:

- (i) Fully trained professional and technical staff able to execute standardization and metrology programmes;
- (ii) Appropriate hardware to support implementation of the standardization and metrology programmes.

This will be a core unit which shall service cells set up in each OECS Member State. The National cells will be responsible for monitoring, promoting and implementing programmes at the national level. They will use the OECS Standard Bureau as a resource base for problem solving programme development and technical assistance.

The regional and national offices shall be mutually supportive and shall co-operate to achieve the stated objectives of the project.

6. Project Background

The requirement to adhere to certain agreed standards for traded commodities is becoming increasingly important as a factor in the export growth of developing countries. In respect of both intraregional and extraregional trade, failure to agree and adhere to industrial standards can do much damage to the efforts of OECS Member States to expand industrial activity geared towards export markets. Most OECS manufacturers are unable to obtain the necessary advisory services and technical assistance to conform to regional and international standards thus making it impossible to penetrate regional and international markets. While concessionary arrangements meant to benefit OECS Countries are in place.

Member States are unable to take advantage of these opportunities.

Imports into the OECS, particularly of food material, are almost always never subject to scrutiny. Testing facilities in the micro-biological field are weak and limited protection is offered to health of human beings, animals or plants.

Consultancy studies carried out in OECS Member States have indicated conclusively that the lack of technical standardization is inhibiting economic growth and adversely affecting the quality of goods and services available in the domestic and industrial sectors. It has also been shown that the lack of standards is inhibiting acceptance of manufactured and processed products in the domestic as well as the export markets. The arguments has also been advanced that while industry has a responsibility for the self-administered regulation of quality and the performance of goods, the OECS Manufacturing/Processing Sectors are not yet sufficiently strong to stand on their own.

7. Project Objectives

The major objectives of the project are as follows:

- (i) To develop a regional capability for the development, execution, and monitoring of standardized activities in the OECS;
- (ii) To assist in the development of national capabilities for the development, execution, promotion and monitoring of standardized activities.

While the above constitute the global objectives of the project a number of related detailed objectives must be manifested within the project. By necessity the work of standards in the OECS must be emphasized in the areas of verification and testing. Other areas which must also receive emphasis are quality control, certification marking and metrology.

Among the more immediate objectives are:

- (i) The creation of the relevant facilities to support standardization and metrological activities at the Regional and National Levels;
- (ii) The development and/or acquisition of capabilities related to standards writing, measurement and calibration systems, legal standards, industrial metrology, training;
- (iii) The provision of assistance to manufacturing enterprises to improve production standards and quality control;
- (iv) The provision of advisory services with respect to standards requirements in regional and international trade;
- (v) The adaptation of already established CARICOM Standards and the development of harmonized standards for use in the OECS;
- (vi) The development of awareness about and the dissemination of information with regards to standards.

8. Project Requirements

For its successful implementation the project requires:

- (i) Physical Infrastructure;
- (ii) Equipment;
- (iii) Manpower;
- (iv) Other

Physical Infrastructure

The requirement of physical infrastructure exists at two levels, the regional level and the national level. At the regional level it is necessary that proper laboratory and office buildings are available to house the project. Housing for the project can be made the responsibility of the host country since that country will benefit from the physical location of the project.

At the national level Agro-laboratories or such other public facilities already exists. These can serve as National Headquarters for the national cells to be established. In both cases the imputed cost of rent

can be calculated as counterpart contributions to the project:

Equipment

Equipment is of vital importance to the project. The regional and national offices must be adequately equipped. The need for equipment is both at the regional and at the national level.

A detailed needs assessment must be carried out to determine the equipment requirement for the Central Bureau. That equipment must include information storage and retrieval systems to ensure that appropriate advice on established standards is given. A complete and comprehensive list and costing must be made.

A detailed needs assessment must also be made in each Member State to determine the equipment requirements. The equipment must be related to the functions to be performed.

Manpower requirements

Manpower requirements exist both at the regional and at the national levels.

At the level of the Central Bureau a fully trained professional and technical staff is required to execute the standardization and metrology programmes. At that level a core permanent staff is required while allowance must be made for short term consultants to perform specific functions areas such as legal standards and other important areas. It appears that the Central Bureau will require the following:

- (i) Project co-ordinator;
- (ii) Industrial Engineer;
- (iii) Food Technologist;
- (iv) Accounts/Executive Officer;
- (v) Secretary/Typist;
- (vi) Librarian/Secretary;
- (vii) Short Term Consultants

At the national level it may not be necessary to recruit any additional staff. In most cases there already exists individuals in the public sector who already possess the requisite skills and who can be redeployed. What is necessary is that a focal point be established in each OECS Member State. That focal point can take the form of national standards council with the redeployed public sector official serving in a full-time or part-time executive capacity. Other public sector officials possessing the requisite skills can form part of that council and should be available to perform specific assignments on a call basis. This will eliminate the need for bureaucracy building and the salaries and allowances already paid to the redeployed individuals as well as salaries and allowances for already existing staff can be imputed as counterpart contributions to the project. Where such skills are not locally available the project must provide for employment of at least the major focal point.

Other Requirements

There are numerous other requirements which must be met under the project. A detailed operating cost estimate and a further development of a project document can bring these requirements to light. Among the requirements would be:

- (i) Software;
- (ii) Library material;
- (iii) Travel;
- (iv) Utilities;
- (v) Supplies;
- (vi) Office supplies;
- (vii) Communication materials

9. Project Costs

A detailed development of the project will yield the probable project cost. It is recommended that the cost structure be divided as follows:

- (1) Infrastructure:
 - (a) Grant;
 - (b) Counterpart contributions

- (ii) Other Costs:
 - (a) Grant;
 - (b) Technical Assistance;
 - (c) Counterpart Contributions.

Given the financial limitations of OECS Governments the project must contain a 100% grant element on certain items for a minimum of three years. The local counterpart contributions should be phased in from the commencement of year 4 of the life of the project and should assume 100% responsibility for the financing of the project on commencement of year 7 of the life of the project.

10. Project Output and Benefits

Apart from some of the more measurable benefits which shall accrue as a result of the implementation of the project there are a large number of other benefits. Benefits related to the achievement of the objectives of the project, as already stated, shall be immeasurable. Along with these project outputs and benefits the following shall also be realized:

- (i) A fully functional information capability with support services;
- (ii) A fully functional standards writing capability to service national, regional and international needs;
- (iii) A fully established Laboratory Accreditation Scheme;
- (iv) A fully established Calibration Service;
- (v) A fully established Certification Service;
- (vi) A permanent capability for ongoing servicing;
- (vii) A reporting system for evaluating the effectiveness of the total standardization and metrology programmes in Member States;
- (viii) A fully trained professional and technical staff;
- (ix) Appropriate hardware and software to support an ongoing programme;
- (x) A detailed standardization and metrology programme for the OECS.

11. Summary of Project

A qualitative approach to the project supports the further development and implementation of the project. When the project is further detailed work activity, logistics, costs and quantifiable benefits will emerge. The project must be developed and implemented as a matter of urgency so that OECS Member States may be placed in a position where they can maximize advantages under already existing potential benefits.

Annex VII

Proposal for More Effective Application of Donor
Assistance to Regional Agro-Industrial Develop-
ment

The need for development assistance is acknowledged. This acknowledgement is reflected in the assistance which has been offered by International Organizations, Government Agencies, Donor Agencies and NGOs from the more developed societies. Unfortunately, the goodwill of these sources of assistance is not reflected by a level of development commensurate with the intentions.

One of, if not the major, reason for this lack of return on "investment" is duplication in some areas and total neglect in others.

It is suggested that some structure be put in place to avoid these difficulties in the future, in relation to small scale Agro-Industries and their corollaries, i.e. standards, quality control, marketing potential and backward linkages to the rural farming community.

It is recommended that a regional Industry Agro-Coordinating Committee be established to co-ordinate all activities associated with small scale Agro-Industries in the first instance. The composition will be:

- (i) The Caribbean Association of Industry and Commerce (CAIC) - Chairman;
- (ii) The Caribbean Community Secretariat (CARICOM);
- (iii) The Organization of Eastern Caribbean States (OECS).

The function of this group will be to monitor activities with a view to reducing duplication of effort by donor agencies.

This Co-ordinating Committee will also be in a position to keep under review Regional Agro-Business opportunities, advise the donor agencies as to the most effective manner in which resources can be utilized, and work in co-operation with such organizations in the application of available resources to maximize benefits and ensure development in keeping with regional aspirations.

In order to give effect to this proposal it is recommended that CAIC convene a meeting of the Co-ordinating Committee as a matter of urgency.