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APPENDIX I

PROPOSALS ON A STRATEGY FOR THE DEVELOPMENT OF THE AGRICULTURAL SECTOR IN THE STATE OF ST. KITTS/NEVIS/ANGUILLA

submitted to the

Government of St. Kitts/Nevis/Anguilla

by the

Caribbean Agro-Economic Society

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PROPOSALS

Introduction

This document is a revised version of the presentation and discussion at the final plenary session of the Conference. The final plenary presentation condensed the essence of four Workshop deliberations. The Workshops themselves were informed by background and specialist area papers and field tours which had been presented, discussed and conducted over a three-day period.

Workshop Groups were required to deal respectively with the following main topics:-

Group I: Policy and Institutional Arrangements

(i) A review and evaluation of Government's policy statements;
(ii) National and regional agricultural organisational structures; and
(iii) The integration of national and regional institutional inputs.

Group II: The Sugar Sub-Sector

(i) The optimum use of resources in the sugar sector;
(ii) Worker participation;
(iii) Current and future farm structures;
(iv) Alternative uses of sugar cane; and
(v) The future of sugar.

Group III: Production of Non-Sugar Agricultural Products

(i) Production constraints;
(ii) Available resources; and
(iii) Farm organization and structure.

Group IV: Marketing of Non-Sugar Agricultural Products

(i) Local and overseas markets;
(ii) A review and evaluation of present marketing arrangements;
(iii) Marketing intelligence; and
(iv) Agro-industries.

All deliberations were confined to the islands of St. Kitts and Nevis.

Policy and Institutional Arrangements

*Inferred Policy**

(i) Sugar cane should be maintained as the mainstay of the State's economy within the foreseeable future, because it is the only known single economic agricultural enterprise that could occupy over 10,000 acres of St. Kitts' prime arable land.

(ii) Food production, including livestock and fishing, provides the greatest scope for import substitution, and should, therefore, be encouraged.

(iii) Scarce agricultural resources should be used in other directions for economic diversification to satisfy the State's internal market, for example, the resuscitation of cocoa and coffee and the firm establishment of the Crafts Industry.

Recommended Policy

(i) Alternative uses of the sugar cane plant should be considered. This is urged because of the present uncertainties in the world sugar market, due partly to sugar expansion by low cost producing countries, and partly by the new technologies for the production of fructose from corn. The use of cane for feeding livestock (both in Nevis and St. Kitts) would seem to merit high priority in view of rising imports of livestock products, and the increased costs of imported livestock feeds which make local production uncompetitive.

(ii) An alternative organisational structure should be explored for estate and sugar factory production, including the greater involvement of workers in the management process and in land ownership. However, the danger of fragmentation should be borne in mind. "Economic" farm sizes ought to be considered for long term leases, especially to prospective young farmers.

(iii) A food and nutrition policy should be developed for the State. The preparation of a draft policy would be the first task of the recently formed Food and Nutrition Committee.

(iv) A farm incomes policy should be enunciated to stimulate greater interest in the agricultural sector. This may encourage youth to consider farming as a living.

National Agricultural Organizational Structure

(i) The State's agricultural services, such as internal and external marketing, the provision of agricultural inputs, the easy provision of credit, mechanisation services, extension services, improved breeding services for livestock and fishing facilities, should be strengthened considerably.

*In the absence of a clearly defined and enunciated policy on Agriculture for the State, agricultural policy was inferred from statements made from the Budget Speech of the Honourable Premier and Minister of Finance.

(ii) The Department of Agriculture in the State should be reorganised and strengthened to provide the following:

(a) A viable extension service in St. Kitts and Nevis;
(b) A land preparation and farm equipment service;
(c) An improved service for the availability and distribution of plant protection chemicals for cotton and green vegetables;
(d) A remodelled livestock station at Bayfords in St. Kitts; and
(e) Improved credit facilities for small farmers.

(iii) The activities of the various agencies involved in agriculture (Supplies Department, Planning Department, Nutrition Department, CMC, NACO, ALDA) need to be coordinated. In particular, NACO and CMC must closely collaborate on an integrated production and marketing system if diversification is to succeed.

(iv) Government should implement an intensified recruitment and training programme for staff in order to give effect to the recommendations above.

(v) Clear national goals should be established, with intermediate objectives which will be designed to achieve these goals, according to some stated time frame. It is only when clearly defined attainable goals and objectives are enunciated, that Regional and International Agencies can effectively offer meaningful aid.

(vi) Every effort should be made to avail the State of the various services offered by Funding Agencies and other Agricultural Development Agencies.

(vii) The Caribbean Agro-Economic Society, because of its wide membership has contacts in all Regional and International agencies and, therefore, should be used as a coordinating agency to mobilise manpower for project design and development.

The Sugar Sub-Sector

Optimum Utilization of Resources

(i) In order for the growing of sugar cane to be most profitable, it should be concentrated on the most suitable lands, from the point of view of good rainfall/irrigation, gentle slopes, good fertility. The less suitable lands should go to alternative enterprises. This is supported by:-

(a) The inferred policy regarding sugar;
(b) The importance of making the agricultural side of the sugar industry more profitable since so much in the State depends upon it;
(c) The necessity to ensure that the manufacturing component of the industry remains profitable. (In order to achieve this, maximum sugar production must be obtained, since a large proportion of factory costs is fixed, irrespective of the size of the sugar cane crop produced in any one

year. At current prices, bearing in mind repairs and new capitalisation of factory plant, a minimum of 30,000 tons of sugar per year must be produced to break-even and 35 - 40,000 tons is required for financial viability.

(ii) The following field management and planning activities should be observed:-

(a) Soil fertility should be maintained -and if possible increased - by continuing the operations of the Research Agronomy Unit (new cane variations, fertiliser trials, anti-erosion practices, etc.);
(b) Pest and disease control must be enforced;
(c) The number of ratoons may have to be reduced in some areas to maintain yields;
(d) Marginal sugar land should be retired from cultivation only after increased yields on other lands make it possible to do so;
(e) The feasibility of irrigating certain areas should be investigated. (It may be feasible to recycle water from Basseterre or capture run-off during rains in storage tanks e.g. from the airport runway.);
(f) Fields not cultivated for sugar cane should be intensively or extensively used for alternative enterprises like pineapples, cashews, cotton, livestock (low rainfall lands), orchard and tree crops (hills); some of these lands would probably be leased (after development), as family farms to help absorb out-of-crop sugar labour, and for young farmers;
(g) All machinery on sugar estates ought to be scrupulously maintained and replaced when necessary; machinery downtime adversely affects the economy of factory and field operations alike; and
(h) Intercropping of food crops with plant cane should be restricted to wetter areas to avoid competition for moisture with cane, the main crop.

Worker Participation - Farm Structures

(i) Alternative methods to achieve worker participation in the sugar industry should be considered. A centrally managed agricultural (cane lands) unit is to be preferred to individually operated holdings, which latter might prove inefficient and difficult to coordinate.

(ii) The following methods for achieving worker participation should be considered:-

(a) Profit-sharing in the industry; in this system, the bonus paid to staff and to workers would be related to the profits of the enterprise;
(b) Staff workers should have shares in NACO, possibly purchased with bonus money, or sold on a hire-purchase arrangement;
(c) Bonus paid on "target basis". The target for an estate or area would be agreed upon by the Corporation in consultation with the Union each year. (In Guyana, for example, reaching the target earns a bonus of eight days' pay. If production falls below the target the bonus is less; if the target is exceeded the bonus is increased.);

(d) Workers should have some say in how much of the profits goes to them and how much to the Company reserve and/or general revenue of Government;

(e) There should be regular meetings between top management, intermediate management and workers to discuss problems and general policy in the sugar industry. In this way workers will know the various goals or targets and will help in formulating policy and the ways and means by which they should be carried out.

(iii) An important component in any worker participation programme is the training and education of the worker.

(iv) Social integration is likely to motivate the worker and assist in the development of a worker participation programme.

(v) Specialists in worker participation in the Caribbean should be invited to explain how various programmes in worker participation may be developed.

(vi) NACO has made an excellent contribution to the economy of the State. Great care should be exercised to ensure that the implementation of a worker participation programme does not destabilize the present system thus resulting in a reduction in the level of production of output.

Alternative Uses of Sugar Cane and the Future of Sugar

(i) The St. Kitts Sugar Manufacturing Corporation should mount technical and economic feasibility studies on the following projects:-

(a) The generation of electricity using surplus bagasse for supplying the National Grid during crop;

(b) The production of anhydrous ethanol for fuel with neutral spirit for rum as a by-product;

(c) The production of structural board and strandboard panels, utilizing the existing separation plant, modified for the new technology.
(A survey of the sugar factory should be carried out to identify the modifications necessary to make the plant more efficient so that the maximum amount of surplus fibre will be available for by-product development.)

(d) Vertically integrated complexes in the Bayfords/Fountain/Milliken Area will have to be established for producing milk and beef, with the long term view of making the territory self-sufficient in these products. Aid agencies should be approached for technical and financial assistance.

(e) More use should be made of filter press mud in field manuring.

(f) For Nevis, sugar cane should be grown for animal feed in the dry season, when there would be little pasture grass. This also has an advantage affecting soil conservation practices.

Production of Non-Sugar Agricultural Commodities

Production Constraints

(i) Arable land is a scarce commodity in the State and should be regarded as a resource to be husbanded and improved, and for which careful planning commends itself.

(ii) The problems affecting land include:

(a) The urgency for a clearer land tenure policy with Government-owned land. The reported temporary annual leases need to be regularised to a more permanent system (5 - 50 years), with distinct and binding (on both sides) terms and conditions between the landlord and tenant. Proper leases will facilitate borrowing for development.

(b) Decisions on "economic" holding sizes, relating to the socio-politico-economic policies of the Government;

(c) Greater ease in obtaining land, especially for the young, careful selection and training of tenants, and pilot demonstration farms. The installation of infrastructure and the provision of services and inputs are all necessary ingredients to successful agrarian policies;

(d) Poor land quality. Much land is marginal for farming either because it is too dry, stony, steep, eroded, rocky, or inaccessible. Since this resource is scarce and there will be a growing demand for it, plans ought to be developed for ameliorating the defects.

(iii) The existing deployment of NACO farm workers during the out-of-crop season would seem to clamour for an alternative strategy. The quality neither of management nor of labour is enhanced by "little work and many hands" or by underproductivity. The creation of tree crop "family" type farms may offer a possible solution.

(iv) The State requires more trained personnel at professional and technical levels, to replace the expatriate top and middle management staff to service the farmers and to enter farming itself. Staff is also required to up-grade the technical level of farmers.

(v) The services rendered by the Development and Finance Corporation need to be improved to service adequately the farming community.

(vi) Farm inputs such as agricultural chemicals, spraying equipment, breeding stock, planting materials and farm machinery services are inadequate or are delayed when imported, leading to frustration and crop loss.

(vii) Political factors appear to influence the functions of certain credit organizations and land tenure proceedings.

(viii) Legislation should be upgraded to deal effectively with praedial larcenists.

Available Resources

The resources identified include the following:-

(a) A supply of manpower, mostly unskilled;

(b) Government incentives;

(c) The gradual provision of a reservoir of youngsters trained in school gardens;

(d) The availability of much Government land in both islands, which can be used for agrarian reform;

(e) The availability of expertise from a large number of regional organisations, e.g. CARDI, which has a field station in St. Kitts;
(f) Trained nationals residing outside the State who could be attracted home;
(g) A cane separating plant at the Sugar Factory which would be used for diversifying the use of sugar cane;
(h) An irrigation potential not yet fully exploited;
(i) A reasonably good road system which encircles each island;
(j) Daily inter-island communication by air and sea; and
(k) Radio, television and a newspaper which could be used for mass education and agricultural promotion.

Farm Organization and Structure

(i) The successful expansion of non-sugar agriculture may demand a closer look at the present structure and organization of farming in the State.

(ii) The following should be considered:-

(a) The promotion in the private sector of small-scale farming, bearing in mind "economic" farm size. The size should be worked out according to the requirements of the State and of the farming enterprise;
(b) The expansion of the fishing policy;
(c) The introduction and implementation of revised livestock production systems;
(d) The specification and expansion of the goals and intermediate objectives of NACO.

Marketing of Non-Sugar Agricultural Commodities

A Review and Evaluation of Present Marketing Arrangements - Local and Overseas Markets

(i) The success of agricultural diversification, especially for food crops, fishing and livestock, will depend directly upon several functions in the marketing system, including:-

(a) Planning production;
(b) Storage and processing;
(c) Finance and pricing;
(d) Transport;
(e) Outlets;
(f) Local, regional and international markets; and
(g) Coordination with the marketing activities of other Caricom States.

(ii) The activities, internal structure and facilities of CMC should be developed to focus on the export marketing of carefully selected commodities. CMC should deal with NACO as a single agency, on a planned production basis, in order to develop its export marketing programme.

(iii) CMC should continue to handle the wide range of products for its present retail operation.

(iv) The structure of the flow of the commodity should be investigated. This evaluation would include transportation studies and the volume of a commodity moved from one point to another within the distribution system. This investigation should take place with a view to improving the facilities in the interest of the nutritional status and the general economic well-being of the people of the State.

(v) A clearly delineated marketing system should be developed and fully integrated with the overall system of the agricultural economy of the State. It is suggested that regional institutions should be approached for assistance with the establishment of these integrated systems.

(vi) Consideration should be given to the appointment of Directors to the Board of the CMC. It is essential to avoid conflict of interest, particularly in the case of private businessmen on the Board.

(vii) A study should be made of the scheduling of the ship which journeys between Nevis and St. Kitts with a view to minimizing its idle time and increasing the flow of traffic and cargo capacity between St. Kitts/Nevis and neighbouring islands, where there might be a market for commodities produced in the State.

Marketing Intelligence

(i) As a priority, a Marketing Intelligence Information System should be established in the Ministry of Agriculture. The functions of the system will include:-

(a) The gathering and analysis of comprehensive information on crop forecasting in St. Kitts and Nevis, on a continuing basis;

(b) The development of a pricing system for crops and livestock, which must be fair to producers and consumers alike. Low farm gate prices at Government Corporations may stifle farm production in the private sector. However, excessively high farm gate or retail prices may evoke adverse consumer reaction;

(c) The employment of suitable and adequate staff to ensure that the system works effectively, for example, to eliminate large gluts and deficits and to help secure and keep markets by accurate forecasting.

(ii) There should be greater contact, collaboration and communication, between territories in the areas of marketing intelligence and general marketing operation. Initiative should be taken by the marketing corporations in the region to promote this greater collaboration, especially in view of the fact that the Agricultural Marketing Protocol is not performing the desired functions.

Agro-Industry

(i) A study should be designed and conducted to determine the feasibility of the establishment of Agro-industries, particularly in peanut roasting and packaging, dehydration of vegetables and production of goat milk and cheese. Spin-offs from the processing industries, may be used as an input to a livestock industry.