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GRENADA COUNTRY PAPER

Submission by the Planning Unit - Ministry of
 Agriculture, Rural Development and Co-operatives,
 Grenada.

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GRENADA COUNTRY PAPER

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AGRICULTURE, RURAL DEVELOPMENT AND CO-OPERATIVES,
GRENADA

AGRICULTURAL RESEARCH POLICY AND MANAGEMENT - GRENADA

1 - INTRODUCTION

- 1.1 Grenada is a three island State, comprising Grenada, Carriacou and Petit Martinique. It has a land area of some 133 square miles, and an estimated population of about 110,000. It is located approximately 90 miles north of Trinidad in the Caribbean Sea and 12° North of the Equator and 62° West of Greenwich.
- 1.2 Grenada's topography is rugged with the only relatively flat lands along the coastal strips. Mean annual rainfall ranges from 160 inches in the highlands to 50 inches in the coastal flats in the Northwest and Southwest. The climate can be classified as humid tropical.
- 1.3 Grenada's G.D.P. in 1981 amounted to US\$97 million. Agriculture is the most important sector of its economy and contributed in 1981 26% of the G.D.P, employed 31% of the labour force and supplied 75% of total merchandise export. The contribution of Agriculture to G.D.P. has declined since 1975 when it was 38.7% and 1978 - 30%.
- 1.4 Grenada's agriculture revolves around three traditional crops - Cocoa, Bananas and Nutmegs, which have showed continued declines in earnings since 1977 from US\$12.2 million to US\$10.4 million in 1981.

1.5 The decline in export earnings can be blamed on exporting difficulties caused by reduced world demand and declining prices, and to increasing production cost and declining productivity.

1.6 The Government of Grenada in office since 1979, inherited a declining economy and has initiated programmes to reverse these declining trends initiating the following concrete actions:-

(a) Established in the Ministry of Agriculture, Rural Development and Co-operatives in 1982.

(i) A Research and Development Division

(ii) A Planning Division

(iii) A Documentation and Information Centre

(b) Reorganised the state farm sector through the creation in 1980 of the State Farms Corporation in order to rehabilitate the 23 run down estates which occupy approximately 3,600 acres of land which it received from the former Government.

(c) Made certain broad policies to rehabilitate the declining agricultural performance through a series of specific measures such as the evaluation of land capabilities, bring idle land into production through specific legislation, improve the quality of planting material by upgrading its propagation facilities and its technicians, initiated selective soil and water conservation measures, encouraged the establishment of production and service co-operatives, and promote a more diversified base of the sector by encouraging the expansion of "non-traditional" fruit trees and food crops geared to improve the nutritional needs of the population for import

substitution, supplying the primary products for its newly created Agro-Industry, and geared to export markets to boost foreign exchange earnings.

- (d) Enhancing and upgrading of supporting services in order to have a stronger impact on the declining cocoa and banana sectors.
- (e) Expanding the scope and promoting a stronger involvement of the Marketing and National Importing Board in directly agricultural productive activities, by making it the main supplier of fertilizer (and to be added later other production inputs) and by directly involved in the marketing of fruits and vegetables for export.
- (f) Improving general rural infrastructure, emphasising the upgrading and expansion of rural roads and providing pipeborne water to farming communities.
- (g) Established in 1980 Agro-Industries Limited to utilise the abundance of fruit which could either not be readily sold or which were being lost through spoilage.

2 - AGRICULTURE RESEARCH POLICY

2.1 Agricultural Research is a felt need in Grenada. Research within recent times has been limited to adaptive research sponsored by CARDI which emphasises variety and cultural trials on a number of vegetable crops and by the FAO executed Agricultural Development Project which includes, soil and water conservation, teaching and training, and plant propagation, and which has demonstrated at Madigras that hilly degraded marginal land can be put into production, and by other agencies now operating in Grenada including the IICA, the French Technical Mission, Windward Island Banana Association, and the National Science and Technology Council.

2.2 In 1982 the Ministry of Agriculture was reorganised to include a Research and Development Division. The Rationale for setting up the Division was mainly as follows:-

THE RESEARCH AND DEVELOPMENT DIVISION

The role of the Ministry of Agriculture is to facilitate the achievement of the objectives set out by Government for the Agricultural Sector. In this regard, the Ministry is currently being re-organised to ensure that its activities are geared towards making Agriculture assume, in a more positive manner, its roles of major foreign exchange earner, supplier of food and provider of the basis for industrialisation.

Efforts have been made to strengthen the Extension Division, the staff of which is in direct contact with the farmers, who in turn are dependent on them for advice and solutions to their problems. The Extension Officers are however, unable to adequately perform their duty in the absence of the research aimed at providing solutions to farmers' problems. These problems will, it is anticipated, increase greatly with current efforts at diversification and expansion of agricultural production.

At present, when a major problem arises, - e.g. pest and disease infestation and external research agency has to be approached for assistance. The process can be time-consuming, and sometimes tardy, with the problem escalating in the interim.

In addition, under the existing situation in the agricultural sector of: Low productivity, scarcity and high cost of labour, declining markets and prices for traditional export crops, a high and rising food import bill, significant post-harvest loss of crops, and a developing agro-industry, research is needed to provide solutions to the number of problems which have arisen or are likely to arise.

The Grenadian farmer, in general, does not at present benefit adequately from the vast amount of agricultural research conducted by regional and international institutions. This is because there is no organised channel for getting the information to them. There is need for a system to collect this information, test it under local conditions, and make it available where appropriate, through the Extension Service.

In further effort, therefore, to facilitate the achievement of the objectives of the agricultural sector, a Research and Development Division is being set up within the Ministry of Agriculture.

OBJECTIVE

The objective of the Research and Development Division is to maximise agricultural production and productivity, both in terms of per acre and per man, by:-

- (i) providing, through the conduct of applied research, solutions to problems of direct practical importance to farmers in the area of crop and livestock production;
- (ii) developing the available human and natural resources;
- (iii) providing the staff of the Extension Service with a pool of subject matter specialists under the Director, upon which to draw; and
- (iv) providing a centre for collection, classification, collation and dissemination of agricultural research findings from local, regional and international institutions.

SCOPE

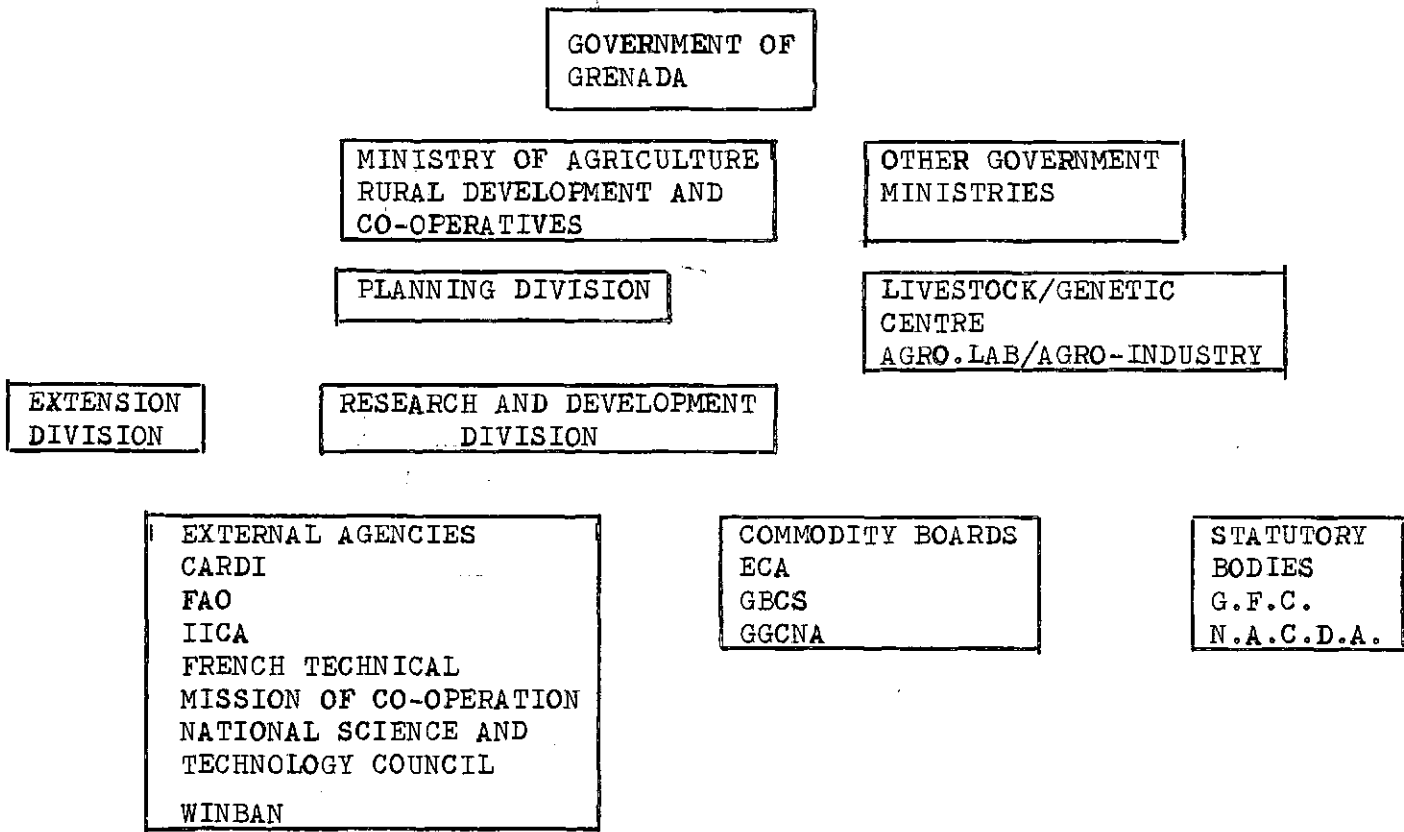
Research and development work is to be conducted for the entire State - Grenada, Carriacou and Petit Martinique. These areas to be considered include:-

- | | |
|------------------------------|------------------------------------|
| Vegetative Plant Propagation | Agricultural Mechanisation |
| Seedling Production | Soil, Pest and Disease Diagnosis |
| Field Experimentation | Training (Agricultural School) |
| Pest and Disease Management | Land and Water Resource Management |

The research will be of an applied nature with emphasis on crops for export, and crops and livestock products for domestic consumption, and the agro-industry.

2.3 Agricultural Research will at least for the foreseeable future be constrained by the unavailability of both financial and scientific manpower resources. The country would have to lean very heavily on external sources for their supply. The Government of Grenada is however cognisant of the need for highly skilled and trained manpower and has initiated as part of its policy some necessary steps to procure these, by the provision of scholarships and the procurement of expatriates possessing the necessary expertise to train local counterparts.

(3) STRUCTURAL ORGANISATION OF THE NATIONAL
AGRICULTURAL RESEARCH SYSTEM



The above chart depicts the governance of the Research System.

3.2 The planning unit has been charged with the responsibility within the Ministry of Agriculture for planning, research and delegate the execution to the Research and Development Division.

3.3 The planning unit has an officer charged with the responsibility of monitoring the activities of all national and international organisations that are involved in Research and Development in the State.

The current Agricultural Research Projects and Institutions Responsible are as follows:-

<u>TITLE OF PROJECT</u>	<u>INSTITUTIONS RESPONSIBLE</u>
(1) Nutmeg "dying-out" investigations	UWI/CARDI
(2) Moko disease investigations	EDF/WINBAN
(3) Verietal Trials <u>Zea mays</u>	CARDI
(4) <u>Cajanus cajan/zea mays</u> density trials	CARDI
(5) <u>Manihot esculentum</u> - Multiplication + yield	CARDI
(6) Solar Drying/Biogas Research Evaluation	French Technical Mission
(7) Small farming systems	French Technical Mission
(8) Swine Breeding and Selection	Government of Grenada
(9) Swine Nutrition Studies	Government of Grenada
(10) Soil and Water Conservation/Irrigation	FAO/Government of Grenada
(11) Propagation/Selection - Non Traditional Fruit	FAO/Government of Grenada
(12) Sub Water Shed Management	FAO/Government of Grenada
(13) Fertilizer Trials/Slow Release	FAO/Government of Grenada

3.4 Research as organised in Grenada at present is financed by external agencies; which in general is controlled by the participating agencies.

(4) HUMAN RESOURCE DEVELOPMENT

4.1 The National Research System Division as mentioned earlier in this document is now being organised. In 1983 the present Research staff includes 2 Ph D one in plant pathology, one in animal science, 2 Msc - one in soil science and one in watershed management, 3 B Sc. 1 Agronomist, 1 Engineer, 1 General. There are six support staff with Diplomas. Several students are at present in training at various Universities.

(5) EXTERNAL RESEARCH

5.1 The main link with external organisations has been through the Director Planning, Training and Development.

(6) TRANSMISSION OF INFORMATION AND TECHNOLOGY

- 6.1 The Ministry of Agriculture has in its Extension Division an Information Unit with an Information Officer (funded by an External agency - C.F.T.C.) charged with the responsibility of collecting, collating and transmitting research findings.
- 6.2 It is estimated that approximately 35% of Grenada's total research is on farm trials. On farm research appears to be the most valuable method. Grenada's farming system is unique in that the majority of farmers can be classified as being small with small farm holdings. According to the 1981 agricultural census there are 8,202 farms, of which 49% were full time farmers on a total area of 23.4 thousand acres with an average farm size of 5.8 acres. Nevertheless 40% of the farms in this category were below one acre (total area : 10.9 thousand acres).
- 6.3 Because of the scattered and miniscule sizes of farms and the disorganised multiple cropping pattern it is not the easiest of tasks to superimpose research practices.

6.4 Information on the value of research implemented and needs for continued or different research is transmitted from the farmer to the researchers by the following agencies;

- (1) The Private Farmers Union, which is an organisation comprising of small and medium size farmers.
- (2) Direct contact by the research workers.
- (3) The extension Service.

(7) EVALUATION

7.1 It is the joint responsibility of the Planning Division and the Research Development Division to monitor progress and co-ordinate research activities.

The acceptance and implementation of these findings by the farming community is the task of the Extension Division of the Ministry of Agriculture, Rural Development and Co-operatives.

7.2 Research evaluation with respect to its impact is not yet systematically organised as the whole Research system in Grenada is as yet in the embryonic stage.



