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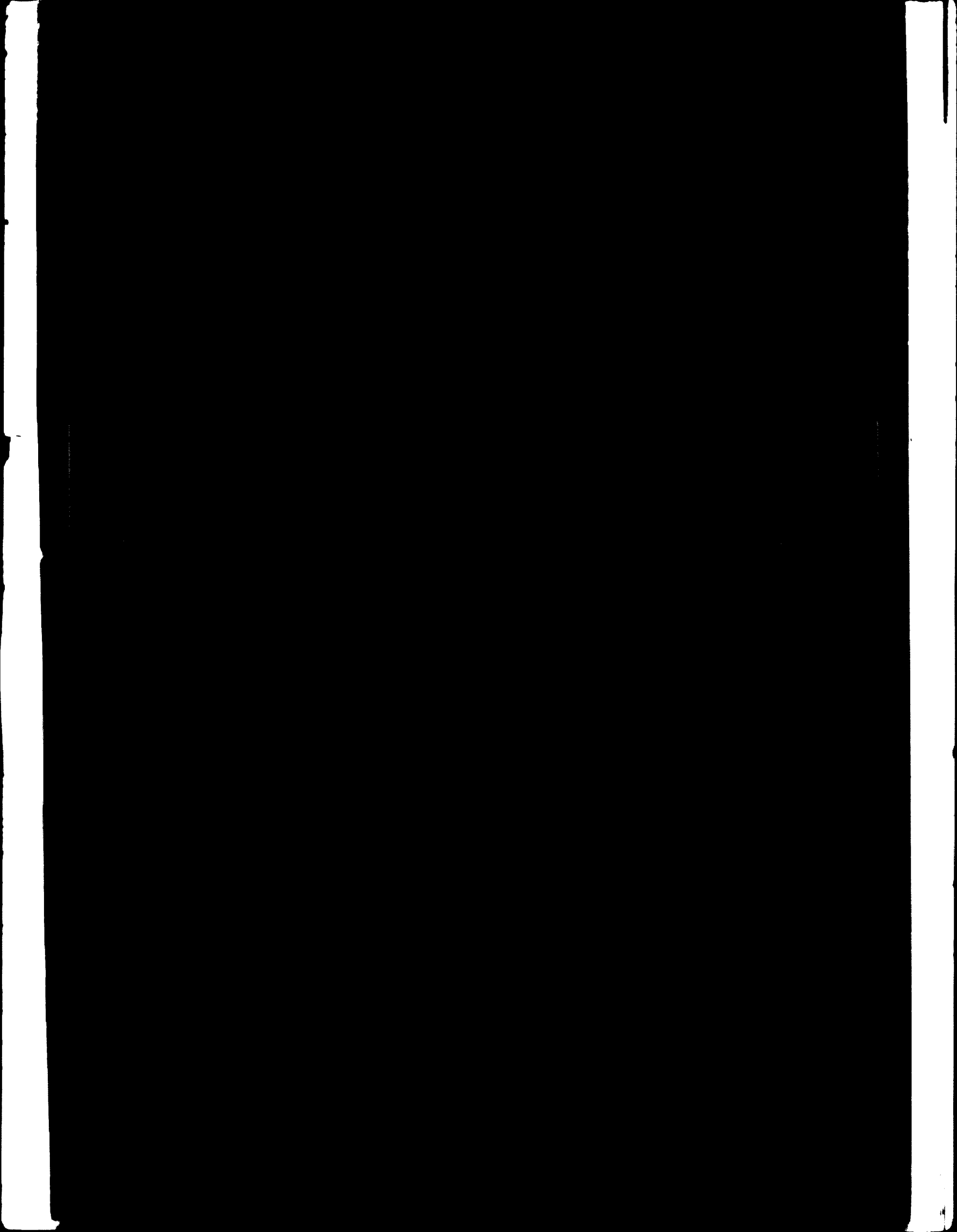
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INDUSTRIAL PROMOTION ASSISTANCE PROJECT  
TO THE ECCM - SECRETARIAT \*

G R E N A D A .

Final Report on Assignment

by

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(TF/CAR/75/001)

Of the United Nations Industrial Development Organization

Acting as Executing Agency for

The United Nations Development Programme

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## SUMMARY

The industrialization process in the ECCM countries is still in its beginnings, established industries show the traits common to most of the countries of the developing world: low technology based semi-mass production goods, final goods oriented industries, agro-derived industries, some light industry and building materials production.

The four main constraints for industrial development in the area are small market size, difficult transportation situation, limited range of natural resources and low level of business management development. There seems to be a lack of consensus on the precise role of the various existing regional organizations involved in the industrial development process, and the communications network between them leaves lot to be desired leading to the recurrence of duplication and/or unco-ordinated activities.

The international assistance provided to the area is manifold, but two underlying trends have to be considered to comprehend the dynamics of the region, and the approach by the international assistance bodies has to be tailored accordingly: the first trend indicates the slowly awakening recognition in the area of the need for regional co-operation and integration, the second, however, shows the surge of "national" feelings in the various members states through the course of the independence process. Policy decisions favouring national rather than regional goals will be seen, thus leading more to a fragmentation on the regional scene.

Although trend one will prevail in the long range, the short and mid-range prospects will see trend two dominate. This will certainly have crucial implications for international assistance projects represented by UNDP. Regional project designs will have to take these prospects into consideration, emphasizing the national components as a base out of which the regional component will evolve, but it has to be emphasizing that the main initiatives towards overcoming the fragmentation tendencies, towards regional co-operation have to come from within the region.

The manufacturing sector in Grenada contributes only marginally to the GDP, its performance has been stagnant over the past half of the 1970's at a level between 4 - 5%, and the number of persons employed in this sector is an estimated 1,500 - 1,600. The internal problems in 1973/74, accompanying the start towards independence and the effect of the worldwide oil crisis have caused a major setback, but the recovery is visibly felt, pulled by a revitalised tourism sector and a large influx of expatriates with the establishment of a Medical School. In 1978 the Government launched a project "Boot-string" to accelerate industrialization.

The main constraints for industrial development in Grenada are probably seen in the other East Caribbean islands as well, and result primarily out of the fact that it is a tiny island economy: physical constraints relate to the tiny domestic market, the regional market difficult accessibility and transportation problems, the oftens unstable supply of raw materials, infrastructure, technology and management related problems concern aspects of the

choice of technology and scale, which have lead to installment of excess capacity and resulting under-utilization, pushing up production costs. Management and skilled labour problems are present as well as problems related to the institutional framework for industrial development on the Government level.

Resources for some industrial development do exist in the field of manpower, agriculture, forestry, fishing, minerals, energy and finance, but still have to be explored in most of the cases.

Activities during the assignment of the Associate Expert in Grenada covered areas of:

- data collection, survey and research
- assistance to the Planning Department (Planning and Programming)
- project preparation

Mainly in the field of project preparation substantial follow-up is required, the continuity of which has - preliminarily - been secured through the offer by the resident OAS agricultural expert Mr. J. Young, to take over from the Associate Expert where required.

Quite serious project management problems were experienced through the course of its duration, which had to be adjusted to, and which were reflected in the low level of co-ordination of activities of the project members, their little internal communication, and communication problems also with project headquarters.

Recommendations are made with respect to the reconfirmation of objectives of industrial development within the overall economic development plans of Grenada, some basic policy guidelines are on structural reinforcement

of the institutional aspects where these should be carried out by the Government itself. It is further recommended that requests for technical assistance are made to carry out "infrastructural work in the preparation of an industrial development programme within the overall macro-framework, research and evaluation of possibilities to establish "Export Processing Zones", preparation of a foreign investment promotional brochure, establishment of a "Data Bank", and business management seminars and workshops.

As earlier mentioned the underlying dynamics of the region do affect the set-up also of the UNIDO project. It is recommended that more emphasis is given to the support of national institutions and capability to promote industrial development.

At the same time, the follow-up of project activities carried out by the members of the Stage I project might require some shifts in the recruitment policy of experts. The consideration of a new approach utilising pilot-plant schemes is also recommended.



## 2. INTRODUCTION

The Caribbean region, represented through the members of the Caribbean Community (CARICOM) has in recent years had to cope increasingly with an internal dilemma threatening to delay the regional integration process: Socio-economic polarization trends between the "big" members, the so called MDC's (Guyana, Barbados, Trinidad and Tobago, Jamaica) and the "smaller" islands, the LDC's (the seven Windward and Leeward Islands: Antigua, St. Kitts/ Nevis, Montserrat, Dominica, S. Lucia, St. Vincent, Grenada). The apparent polarization between the relatively affluent "haves" and relatively poor "have-nots" has even led to accusation of the type that the CARIFTA, and later CARICOM has only served the MDC's but neglected the LDC's, thus contributing another headache for Regionalist thinkers in the region, besides the well-known "struggle" for leadership amongst the member states.

The role to serve as a "gap-filling" institution between the LDC's and the MDC's (as well as to promote increased co-operation between the LDC's themselves) in the economic sector was then assigned to the Eastern Caribbean Common Market as a sub-regional organization (ECCM, Secretariat in Antigua), which was formed in June 1968 and comprises the seven Leeward and Windward Islands. In 1974 a complementary financial institution was found, the Caribbean Investment Corporation (CIC, Secretariat in St. Lucia), largely sponsored by the Caribbean Development Bank (CDB) to assist in serving the investment needs within the ECCM area (and also Belize/British Honduras).

One vehicle in particular considered to have a catalyst effect on accelerated economic (growth) development in the ECCM area has been Industrialization.

In their June meeting 1974 the ECCM Heads of Delegation decided to promote the development of industry by supporting the introduction of an Industrial Allocation Scheme (IAS) - allocating and promoting the establishment of five industries in each of the 7 member states with each industry geared towards supplying the whole ECCM area.

The United Nations Development Programme (UNDP) has been active in assisting the ECCM Secretariat in the field of industry since October 1973. In incorporating the decision on the IAS, UNDP's assistance was revised and strengthened, which led to the Project with the title:

Industrial Promotion Assistance Project to the  
ECCM Secretariat (CAR/73/001)

with the United Nations Industrial Development Organization (UNIDO) as the Executing Agency.

The objectives of this Project, as outlined in the Project Document have been:

A. Long Range Objectives:

- (i) To diversify and expand the economy of the ECCM member states through increased contribution to the GNP of the industrial sector, due consideration being given to the need to create new employment opportunities.
- (ii) To reduce disparities in the levels of industrial development between the ECCM countries (LDC's) and the MDC's of the Caribbean Community, thus contributing to the successful evolution of the Caribbean Common Market.

B. Immediate Objectives:

(i) Institutional Objectives:

- (a) To provide advice to the appropriate Government Departments and the ECCM Secretariat in respect of systems and procedures as related to industrial development;
- (b) To provide policy advice in respect of incentives to industry and with regard to the location of industries;
- (c) To assist in the formulation of a Long Range Industrial Development Plan for the ECCM member states;
- (d) To strengthen the capability of the ECCM Secretariat in the field of industrial project preparation and to develop collateral and co-ordinated capabilities in the appropriate departments of each Member Government, through on-the-job training of counterpart personnel.

(ii) Promotion Objectives:

To assist in the identification of new industries suitable for establishment in the ECCM member states by local entrepreneur and foreign investors and to assist in the preparation of such industrial projects.

The job description for the Associate Experts reads:

The Associated Expert will work as part of a UNIDO team comprising three experts (including Project Manager) based in Antigua, and four associate experts based in various member countries of the ECCM. The UNIDO team will

work with the Industrial Evaluation and Promotion Unit of the ECCM Secretariat with Government entities of the ECCM member states. The associated expert will assist the senior advisors and counterparts required and strive to maintain continuity of contact between investors and island government entities on the one hand and the ECCM Secretariat's Industrial Evaluation and Promotion Unit on the other. The associate expert will be accredited to an island National Development Corporation. The associate expert will be expected to:

1. assist in data collection, analysis and presentation;
2. assist in the preparation of pre-feasibility studies and project profiles;
3. assist investors in the preparation of documentation in support of applications for loan finance.

The contract of the Associate Expert started on March 21, 1977, for an initial period of one year, and was assigned as his duty station the island of Grenada, where he arrived on April 2. In March 1978 his contract was extended for a second year. He left the duty station on January 29, 1979.

In Grenada the Associate Expert was attached to the Ministry of Planning, Development and Training (PD & T) of the Prime Minister's Office. He was responsible to the Permanent Secretary of PD & T. Due to the lack of personnel in the Ministry, no counterpart relation (for training purposes) was established and the Associate Expert was partly active as if on an OPAS basis.

This final report tries to summarize the findings and conclusions arrived at during the assignment and gives recommendations on follow-up activities to warrant continuity of efforts.

### 3. FINDINGS

#### 4. INDUSTRIALIZATION PROCESS IN THE ECCM AREA - GENERAL COMMENTS

Any evaluation of the industrialization process in the ECCM leads to the question of whether or not the Industrial Allocation Scheme has been successful or not.

This report in no way intends to evaluate the success of the IAS, as this will be included in the final report of the Project itself.

Nevertheless, some general observations<sup>1/</sup> are expressed, which will hopefully contribute to the understanding of the difficulties and constraints of the industrialization process in the ECCM area, and in Grenada as a member of the ECCM.

The Project (CAR/73/001) document relates that "the ECCM Council of Ministers, at its Meeting in mid-February 1973, was in a position to give its endorsement for the allocation of 27 of the industries identified". Since then, all 35 industries have been identified and endorsed, and a number of them, like the Paint Factory in Antigua, the Flour Mill in St. Vincent have been established and commenced operations.

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<sup>1/</sup> No "hard" data were available in Grenada on the contribution of the Industrial/Manufacturing Sector in the combined Economies of the ECCM area, and neither for that of the Allocated Industries within the industrial sector.

But on the other hand, these above mentioned newly established industries (according to the IAS) have been rather the exception than the rule. In Grenada, for instance, for a variety of reasons none of the allocated industries has been implemented yet.

The types of industries established in the ECCM area are typical for most of the developing countries: relatively low technology, semi-mass production: light industrial manufacturing activities (garments, paint); assembling (motor car); production of consumer goods for domestic consumption (breweries, rum, sugar, cigarettes, batteries, furniture, printing, mattresses); for sub-regional export (flour, shoes, edible oil, soap, furniture); agro-derived industries (some food processing, coconut products, citrus products, jams, jellies, etc.) and some building/construction material producing activities.

Three outstanding features of the ECCM which affect industrial development are:

- (a) the small market size (combined population approximately 500,000) which is again fragmented into tiny local markets due to the political land map as well as the difficult transportation/communication situation (Island States);
- (b) limited range of natural resources;
- (c) low level of management development.

## 5. PROBLEMS AND CONSTRAINTS

### Institutional Problems

A brief survey of the institutionalized industrial promotion machinery in the ECCM reveals that, besides the national Governments, three sub-regional organizations are the main catalysts: the Caribbean Development Bank (CDB), the Caribbean Investment Corporation (CIC) and the ECCM Secretariat<sup>1/</sup>.

The ECCM Secretariat has been entrusted with the identification of industries and the preparation of pre-feasibility studies, while the CIC was founded to provide equity and long-term loan financing for industrial undertakings in the ECCM area and Belize.

Since its establishment in 1970 the CDB has been involved in pre-financing activities related to industrial projects through its Industry Unit. These activities have now been - officially, at least - to a large extent taken over by the ECCM Secretariat. The Bank has naturally been also involved in the financing of industrial projects.

Above would be an approximate description of their "terms of reference" as defined by the Project Document. Unfortunately this "division of labour" approach has not always been successful as there apparently exists a serious communication problem between these various organizations themselves on one hand and the member States on the other, to the extent that throughout the area not little confusion seems to prevail about the respective roles of these organizations in the field of industrial development.

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<sup>1/</sup> Others involved in the industrial development process of the region are the Caribbean Community (CARICOM), Caribbean Regional Integration and Advisory Team (CRIAT), Caribbean Industrial Research Institute (CARIRI), Caribbean Rural Development Advisory and Training Service (CARDATS).

In particular the working relationship between the ECCM Secretariat and the CIC has in the past been influenced by what can be described as "petty jealousy" based on an instinct to safeguard one's "territory", and very far indeed from a complementary co-existence.

It must be noted, in addition, that in comparison with the CDB, both the ECCM Secretariat and the CIC have experienced difficulties in recruiting suitably qualified staff members, which in turn has inevitably affected their performance.

The improvement of the existing communication network, especially between the above mentioned organizations themselves and with all the national institutions involved in the industrial development process is of urgent need together with better co-ordination of activities and increased mutual understanding for each other's *raison d'être*.

It is of utmost importance that initiatives to these ends come from within the region/area, and are not of a superimposed nature from outside.

#### International Assistance

International assistance provided in the area is manifold, both in terms of agencies involved and field of activities.

In the field of industrial development the UNDP has provided the bulk of technical assistance with some other financing institutions e.g. CDB, and bilateral agencies e.g. British Development Division (BDD) etc. financing industrial infrastructure projects (factory shells), or partly contributing capital input for the establishment of industries. Technical assistance by UNDP is provided to the CDB through the IBRD executed project, RLA/70/111, and to the ECCM Secretariat and the CIC through two UNIDO-executed projects.



Unfortunately the communication, co-ordination and co-operation of the two UNIDO projects has left a lot to be desired, a fact which might have aggravated the lack of communication between and co-ordination of activities of the ECCM Secretariat and the CIC itself, and has in some aspect proved to be a costly duplication of efforts for UNDP.

Improved co-ordination and monitoring of the two UNIDO projects at UNDP/UNIDO level is of highest priority.

#### Future Trends

In planning for industrial development in the ECCM area, following two contradictory trends have to be considered:

1. The need and pressure for sub-regional and regional co-operation and integration will increase in order to guarantee not only sheer survival, but also a competitive position in the international community.
2. In the immediate future one member of ECCM after another will - following Grenada, and recently Dominica - become independent (St. Lucia and St. Vincent are scheduled for early 1979), and thus a full member of the international community.

**Trend 1:** clearly points to a more rational solution, where the roles of the regional and sub-regional institutions will be strengthened, and member Governments' attitude towards them will turn much more positive than now.

Trend 2: independence for the Governments of the new State brings along the challenge and need to consolidate the population, to create positive self-identification. The terms "national", "sovereign" will be emphasized, thus leading to policy decisions favouring national goals over regional ones.

Although Trend 1 (towards regional integration) will prevail in the long range, the short and mid-range prospects for the ECCM area will see Trend 2) (stressing of national individuality) dominate. In this context, the time period involved will be 5 to 7 years or even beyond to over 10 years.

This will certainly have crucial implications on future UNDP assisted regional projects, particularly in the field of industry, which is for many young countries a synonym for modernization, and felt as the passport for rapid economic development.

Clearly the present approach of the UNDP to strengthen regional organizations will pay off in due course (although thought has to be given to the question of which regional institution to support and strengthen); but in the meantime, emphasis should be given to the national component (of the project) as a base out of which the regional component will evolve. Incidentally, this approach has already been - maybe unintentionally - tested in the course of the assignments of the 4 Associate Experts of this Project.

Under these given conditions (dynamics) the regional integration process is inevitably a very slow and painful one, but, again, it has to be emphasized that the main initiatives towards overcoming the fragmentation tendencies, towards regional co-operation have to come from within the region.

It is in this light that the situation of the industrial development process and project activities during the assignment have to be viewed.

## 6. INDUSTRIALIZATION IN GRENADA

### 6.1 Economic contribution of the Industrial Sector to the GDP:

The manufacturing industry sector in Grenada is still small, its contribution in terms of employment and income generation is limited. The sector contribution to the GDP over the first half of the 1970's (1970 - 1975) has been stagnant at a level between 4 and 5%.

As to mining and quarrying, the combination remained at a level of 0.1 - 0.2%. Construction output saw a significant decline due to the end of the resort development boom in the early 1970's.

Table I at Factor Cost (Current prices)  
1970 - 1975 (EC\$1,000)

Sector	1970		1971		1972		1973		1974		1975	
	EC\$	% of GDP	EC\$	%	EC\$	%	EC\$	%	EC\$	%	EC\$	%
1. Manufacturing Industries	2,676	4.3	2,473	4.1	2,622	4.1	3,165	4.8	2,987	4.6	3,614	4.5
2. Mining and Quarrying	124	0.2	120	0.2	110	0.2	82	0.1	182	0.3	89	0.1
3. Construction	8,506	14.2	5,817	9.7	6,019	9.4	5,478	8.3	2,871	4.4	5,713	7.1
GDP	60,013	100	59,730	100	64,164	100	65,815	100	65,365	100	80,464	100

Source: From National Income Estimates of Grenada -  
Sources and Methods  
Ministry of Finance - 1977

The manufacturing sector employed approximately 2,000 persons in 1970 (equivalent to about 8% of the labour force). In 1977 an estimated 1,500/1,600 persons were employed in the sector (estimated at 6% of the working population). The estimated average value added per worker in the industrial sector is roughly US\$870 - 900.

The manufacturing sector suffered a major setback in 1973/1974 as a result of a combination of two factors (internal and political problem accompanying the independence period and the world economic crisis after the oil price hike). But it is recovering steadily in the final goods (consumer goods) oriented fields (particularly beverages) due to increased demand pull coming from a revitalised tourism sector and large inflows of foreigners with the establishment of a Medical School.

The Government of Grenada has expressed its desire to accelerate industrial development, and in this connection has launched a project called "Industrialisation and Employment Bootstring."

Although the direction of this Bootstring Project is not quite clear, the fact, that the first initiative has been made to reconcile and encourage the private sector (the split came during the independence crisis) merits a positive note.

#### 6.2 Established Manufacturing Units:

At present the Manufacturing Sector consists of approximately 130 - 140 units. The breakdown according to the ISIC-code is:

<u>Industry Code</u>	<u>Description</u>	<u>Type</u>	<u>No. of Units</u>
3111-3121	Food & Confectionery	meat, poultry, dairy food & fruit preservation, edible oil, bakery, sugar, chocolate, candy	approx. 35
3122	Prepared Animal Feed		2
3131-3133	Alcoholic Beverages	brewery, rum, liqueur	approx. 8
3134	Non-alcoholic beverages		5
3140	Tobacco Manufacturing	cigarettes	1
3220	Garment	outer garment, intimate apparel	approx. 18
3231-3240	Tanneries, Leather products, Footwear, Leather substitute	tanning, bags, leathercraft, shoes	9
3311-3320	Sawmills & Woodwork, Furniture, wooden containers		approx. 27
3420	Printing		approx. 4
3523	Manufacture of Soap		1
3540	Manufacture of Miscellaneous Products of Petroleum & Coal	flexible foam	1
3551	Tyre and Tube Industries	retradding, (tyre repair not included)	3
3691	Manufacture of Structural Clay Products	cement blocks	4
3812	Metal Furniture & Fixture primarily of metal	metal furniture upholstery	approx. 8
3841	Ship Building & Repair	(wooden vessels, fisher boats, yacht repair)	approx. 12
3843	Manufacture of Motor Vehicles & parts of it	car radiator	1
3909	Manufacturing Industries n.e.s.	handicraft	

About 70% of all units (excluding Handicraft) are cottage type industries employing less than 5 persons, while the biggest operations employ about 80 to 90 persons.

The Table II below gives an estimated breakdown of manufacturing units according to employment size:

Table II - Employment characteristics of the Manufacturing Unit

Production unit Employing	No. of units (Estimate)
Above 50 persons	3
30 - 50 persons	4
15 - 29 persons	8
6 - 15 persons	25
1 - 5 persons	residual

Other characteristics of the manufacturing sector will be dealt with below under Problem and Constraints.

### 6.3 Problem and Constraints:

#### 6.3.1 Physical Constraints:

##### Domestic Market Size

Grenada has a population of about 105,000 to 110,000 with a per capita GNP of approximately US\$400 (in 1976). In addition, a Lorenz-curve of income distribution would probably show that only a small percentage of the overall income in Grenada is in the hands of the majority. Thus, it is clear that one deals with a very small market with very restricted purchasing power.

But at the same time the average Grenadian has historically been exposed to a wide array of imported consumer goods with the effect that the Grenadian consumer is almost unproportionately sophisticated, and most critical especially with regards to own local products than with imported items.

The small market size as well as the bias of the Grenadian consumer towards imported goods have, in the past repeatedly posed constraints for the successful operation of a local manufacturing unit. It is suggested to approach the local market with "every day" goods (e.g. coir fibre products - brooms, mats, etc.) where the bias is easier to overcome, and where most of the input is of local origin.

#### Regional Markets:

The ECCM member states have a combined population of about 500,000 people, and the total CARICOM area over 5,000,000 thus providing a potential export market for the local products and possibly making otherwise unfeasible industrial project economically viable.

The ECCM was formed inter alia for the purpose of promoting industrial development in the member states through a carefully balanced system of allocated industries and mutual interdependence.

Although the ECCM states will mutually receive and extend favourable treatment as against the bigger MDC's, the Industrial Allocation Scheme so far has had only limited success. One of the main constraints has been the jealous rivalry among the member states leading to the diffusion of the same industries in various islands where one plant alone could serve the whole region.

Unfortunately even the enlarged market size of the ECCM area as well as its island-state-conditioned transportation problems do narrow the range of feasible projects in most cases down to final-use-oriented goods, the regional market of which is already successfully seized by the MDC's. Restrictive trade policies adopted by members of the CARICOM have added to the problem of developing an export market.

Furthermore, in case of Grenada, the geographical and maritime situation has traditionally fostered close trade ties with Trinidad, rather than with the other ECCM States up in the north. Some local manufacturers have, through personal contacts, set up export business with Trinidad (medium price furniture, garments) specialized on a certain range of products which are characterized through the fact that they are well within the locally available level of skill and technological experiences, and by chance complementary to the products produced and sold in the Trinidad market. This approach provides the hint to examine other regional markets for their acceptance of some selected Grenadian products. Given the quite similar level of development in the other ECCM islands, probably similar rather than complementary manufacturing is undertaken, thus creating barriers for mutual trade flows.

Transportation: (Accessibility)

With regards to the regional market or even international trade, one cannot neglect the problem of the lack of reliable efficient - and at the same time low-cost regional/interisland transportation system serving the ECCM member states. A multitude of studies prepared by various institutions have already been devoted to this subject, but a concrete action programme is still awaited.



Supply of Raw Materials:

The development of the agro-based industries has been allocated some priority by the Government. Nevertheless, the supply of some raw materials, i.e. agro-input has been a constant constraint.

Granada has little experience in programming agriculture plantings with the goal to process the product due to the fact that most of its tree crops (the prominent ones are Nutmeg, cocoa and banana) have been exported for fresh consumption (bananas, and regionally, to a small amount other tropical fruits like sour sop) or in the basic cured stage as known in the commodity trade (nutmeg, mace, cocoa beans) fetching a premium price for its good quality.

Vegetable and root crop production has been only gradually and slowly developed from a substantial level in the rural area towards commercial vegetable production.

Basically there has never been a glut of (vegetable) farm production justifying the establishment of a food processing industry, not to mention that in many cases species for processing do vary from those produced for fresh consumption (e.g. tomatoes), and that no research has been carried out in Grenada so far on this subject.

To make sure, semi-private home-canning type cottage industries have always existed, but the switch from cottage industries towards larger scale food processing industries, has to step over a number of preconceived stages, not the least of which is the agricultural production component.

Concerning the processing of fruits, limitations are set through scale problems based on geographical and topographical conditions, as well as through the fact that there are no orchards in the true sense of the word. It is true,

that one can observe considerable quantities of limes, mangoes and other fruit during the season, but the cost of harvesting and internal transportation, as well as difficulty of grading has proved to be the bottle necks.

This holds true for an export-oriented operation like lime-processing where the internationally incompetent high cost structure has been one of the major reasons forcing the privately owned operation to close down. It also is valid for a partly import substitution oriented operation like canning, where there either simply was not enough local raw material available (vegetables) or the farm gate price too high (fruits like mangoes) to be competitive so that the company relied on preparing and bottling/canning of imported fruit (juice, pulp) and vegetables (tomato paste, etc.)

#### Industrial Infrastructure:

As, part of the post-independence gift, the British Development Division sponsored the construction of a first factory shell for an industrial estate 6 miles south of the capital of St. George's. This construction measures 12,500 sq. ft. Only recently the first tenant has moved in, after it had been standing idle for 2 or 3 years. There is definite need for further construction of factory shells provided that a firm management policy is set up by the Government. For the time being it is not very clear which Government Ministry or Agency is responsible for the established factory shell.

A request for assistance in construction of further Factory Shells for an industrial Estate has been made, at a recent meeting with BDD representatives. It has been indicated that the CDB has a credit line providing for the construction of factory shells, and that the BDD would assist in the otherwise locally born (counterpart) cost for the infrastructural work.

The road network is one of the most extensive of the member states in the ECCM area a 610 km. However the road conditions have deteriorated. Prime victim of this situation is the agricultural sector, where rejects of bananas at the port of export (St. George's) reach an alleged 40%. Foreign assistance has been secured to rehabilitate some of the main routes. However it is estimated that it will reach well into the 1980 until substantial improvement will be seen.

There is a deep water port in St. George's, capable of accommodating up to 20,000 (gross tonnage) ton vessels. Handling of containerized cargo is not yet possible but a port development project including container handling facilities is envisaged and hopefully implemented in the coming years.

Airport: The absence of an international airport with direct communication to major points in North America and Europe is for the time being a greater constraint for the Tourism Sector, but will be certainly more felt in the context of industrial promotion in some point of the future, when more enterprises are established which would rely on air transportation of either their in or their output. It is felt that the present priority is to improve the quality of the existing facilities and connections to ease the accessibility of Grenada.

### 6.3.2 Technology, Production and Management Problems/Constraints

#### Choice of Technology and scale

The range of research into an available literature devoted to small scale industries has been a respectable increase over the recent years echoing a world-wide awakening that transfer of technology does not just mean the selling of advanced equipment from the Northern to the Southern countries.

It has been recognized that a new conception of technology had to be developed taking into account local features like:

- Limited market size
- Limited sources of capital
- Limited industrial experience and know-how
- Relatively easily available low-cost labour
- Limited sources of management know-how
- Little technical education
- Limited and sometimes unsecure supply of raw material.

Internationally the research into appropriate technology is still on its initial stages, and unfortunately for Grenada and other Caribbean islands as well - readily available technologies on small scale industries is in most cases still on too large a scale than appropriate for Grenada. This puts extreme constraints on the identification and preparation of industrial projects - besides the difficulty in obtaining relevant information on these technologies. Due to these reasons it has been revealed that a number of industries had machinery installed geared towards excessive levels of output, resulting in extreme underutilisation and little employment generation. The industrial average of the level of operation for the surveyed year 1976/77 has been estimated at approximately 50%.

In other cases the absence of adequate technology information has deterred entrepreneurs from replacing their outdated uneconomic machinery.

Further in the case of cottage-type industries, it has often prevented them from acquiring any industrial machinery at all, resulting in low productivity levels.

### Choice of Technology and scale

Research into this subject of Appropriate Technology for Grenada to be carried out at site as well as the establishment of a Data Bank collecting information on appropriate technology is urgently needed. Such an institution could be incorporated into the United Development Corporation, the GAIDC, as the private sector would financially be hardly in a position to carry out research activities on its own.

Other problems of scale relate to the comparatively high cost of raw material, be it local (mainly agro-inputs) or imported. The scale problem is self evident in the agricultural sector. In case of imported materials (virtually no industry linkages exist), due to the small scale of operations, little is realised out of the potential benefit of purchasing large quantities at discounted prices. Furthermore long lead-times in the purchase of materials/goods to be imported as well as very slow inventory turnover together sometimes with debt servicing bear the problem of tying up excessive amounts of working capital.

### Skilled Labour and Management

The shortage of skilled technicians and experienced industrial managers has been the bottleneck for the implementation of most of the projects. Limited training facilities do exist in form of the Technical and Vocational Institute (established 1972) but further financial training support by the Government through subsidies seems unlikely to be realised.

An increasing number of industrial training fellowships are organised and sponsored by donor agencies, bringing the suggestion near to attempt at organization of in-plant-workshops at a local or regional level to be sponsored by international agencies e.g. UNDP.

However, one has to give thought to the serious problem of "brain drain" i.e. the migration of particularly those people who in one way or another had access to advanced academic and/or technical education. Although this trend has been observed in most of the developing countries, it is particularly strong in the Eastern Caribbean, where there has been a traditional linkage to UK, USA or Canada. More recently seemingly booming countries have emerged right in front of the door, e.g. Trinidad and Tobago, Barbados, which - at a period of tight immigration control in the traditional migration destinations - provide enough attraction to lure away the anyway scarce resources of qualified and trained manpower. A solution to this situation should be discussed not only at a national level, but rather on a regional level involving all ECCM member states.

#### Small Enterprises and cottage industries

The problem of effective management skills is particularly evident in the field of small businesses, enterprises and cottage type industries. The development of this sector is important especially from a social point of view, in as employment generation at low investment costs, development of integrated communities though self help schemes could be the resulting benefits.

In the case of Grenada, the small enterprises face the problem, that they have to compete with relatively powerful established entrepreneurs in the wholesale and retail business who have been quite efficient as well as "final - goods" oriented.

A potential small-scale manufacturer would face the problem of both strong competition from imports as well as only passive co-operation for the importation of new materials, etc.

In addition, as already mentioned earlier, through historical close contacts with consumers of the developed regions, the local population has developed into quite a sophisticated customer and considerable bias exists against locally produced goods.

Further, the lack of even rudimentary management concepts including account keeping, inventory control, production plan, marketing plans as observed from interviews, paralyses the further development of a competitive small-scale entrepreneur.

With respect to cottage industries, these above-mentioned problems are further aggravated through two facts, that a) they are often isolated from each other, missing a representative for their sector, and hence, do have enormous constraints in obtaining adequate market information as well as recognition and b) they have for a long time had virtually no access to financing institutions (local as well as foreign) for development of their enterprises.

There is no official registration of cottage industries, an issue which could be politically very sensitive, but which will be one of the first steps to a successful evaluation of the cottage industry existing in Grenada. (For further recommendations see below).

### 6.3.3 Institutional Problems

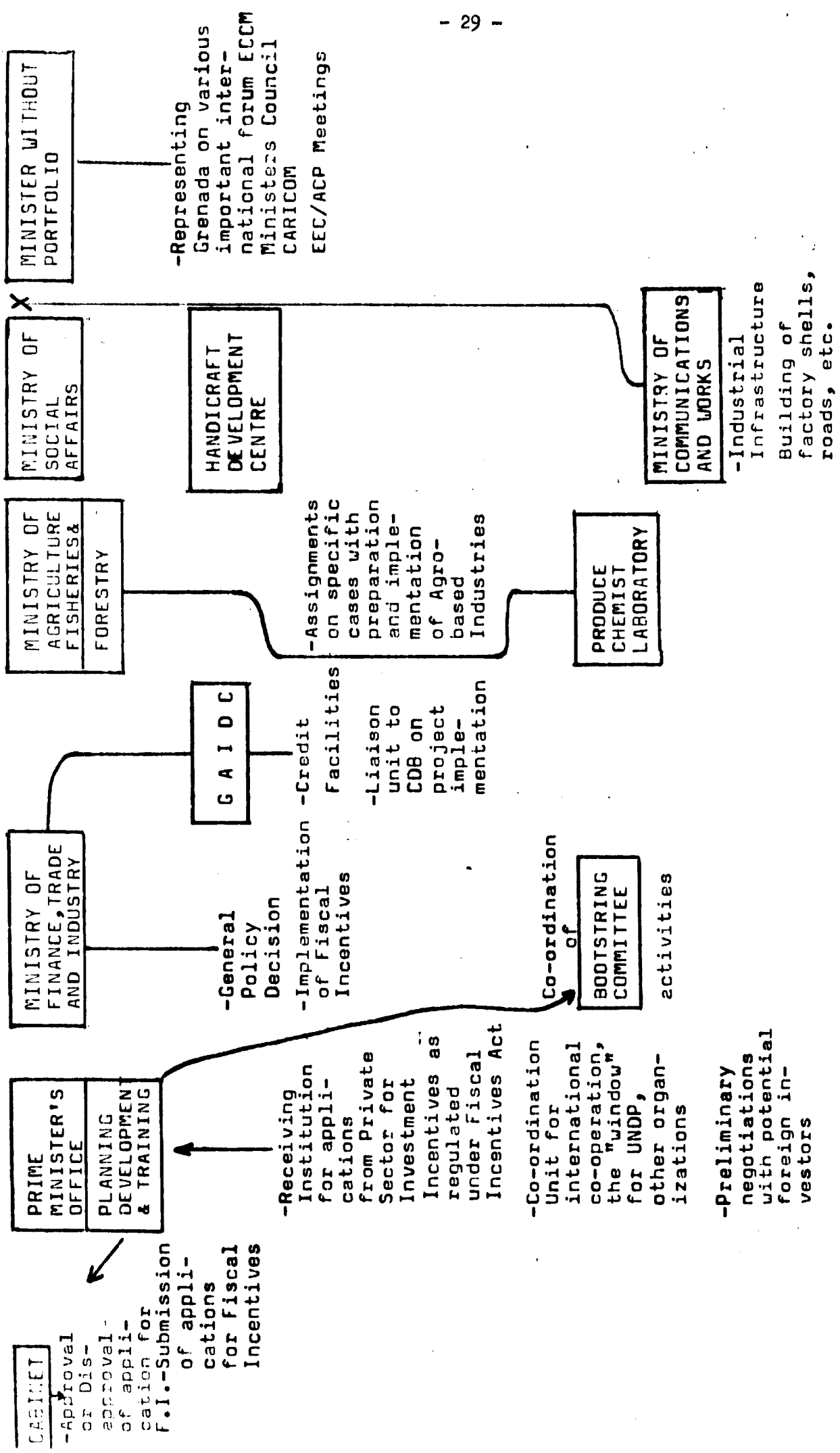
#### Institutional Framework

The institutional framework in Grenada is built up as follows: Industry nominally falls under the portfolio of the Ministry of Finance, Trade and Industry, but up-to-now there has not been an industrial officer nominated. Industrial development matters are dealt with in the Ministry of Planning, Development and Training, but again, due to the understaffing

no officer can deal with these subjects full-time. The Grenada Agricultural and Industrial Development Corporation is only marginally operative due to understaffing and lack of professional qualification.

The Ministry of Agriculture is assigned to deal with industry related to fields (agro-industry) on a case-by-case basis, and a handicraft development centre has been operating under the aegis of the Ministry of Social Affairs. Following is a chart illustration of the various institutions and their activities.





CABINET

-Approval or Dis-approval of application for F.I.-Submission of applications for Fiscal Incentives

PRIME MINISTER'S OFFICE  
PLANNING DEVELOPMENT & TRAINING

-Receiving Institution for applications from Private Sector for Investment Incentives as regulated under Fiscal Incentives Act

-Co-ordination Unit for international co-operation, the "window" for UNDP, other organizations

-Preliminary negotiations with potential foreign investors

MINISTRY OF FINANCE, TRADE AND INDUSTRY

-General Policy Decision  
-Implementation of Fiscal Incentives

G A I D C

-Credit Facilities  
-Liaison unit to CDB on project implementation

MINISTRY OF AGRICULTURE FISHERIES & FORESTRY

-Assignments on specific cases with preparation and implementation of Agro-based Industries

PRODUCE CHEMIST LABORATORY

MINISTRY OF SOCIAL AFFAIRS

HANDICRAFT DEVELOPMENT CENTRE

MINISTER WITHOUT PORTFOLIO

-Representing Grenada on various important international forums ECCM Ministers Council CARICOM EEC/ACP Meetings

MINISTRY OF COMMUNICATIONS AND WORKS

-Industrial Infrastructure Building of factory shells, roads, etc.

Communication network and co-ordination, delegation of authority

Earlier on it was mentioned that the lack of an effective communication network on a regional level had been one of the constraints for individual development in the ECCM Area. At its early stage of industrial development, Grenada has already got to face this communication problem internally.

The communication network is quite complicated involving these different institutions. The absence of a full-time industrial officer puts serious strains on this network as there is no central co-ordination, and it is not quite clear as to the routes of horizontal communications between institutions.

Furthermore, the absence of an industrial officer to whom the decision-making power and co-ordinating authority should be delegated to a large extent creates obstacles in the implementation of public sector industrial projects, in as there exists no implementing agency as such. As there is no officer in charge working full time on industry-related matters, there is no opportunity for government officers to become thoroughly acquainted with the complicated problems and often tedious developmental work necessary to acquire industrial planning and management skills.

In this context, reference to the "Bootstring" committee is deemed necessary.

This Committee has been entrusted with the promotion of the Project "Operation Industrialization and Employment (Generation) Bootstring" (declared in August 1978), it is composed of three representatives from the private sector

and 3 Government-appointed officials, but none of them serves full-time for the Committee. In addition, the terms of reference for it seem to be very vague, and no budgetary provision has been made to cover any operational expenses. In fact, despite the announcement by the Government that it would also financially support local initiatives to invest and start manufacturing activities, no further classified public statement has been made as to the amount of Government participation and underlying conditions.

Ideas to set up a "Bootstring" Agency for industrial promotion were also voiced, however, such a promotional institution already exists in the form of the Grenada Agricultural and Industrial Development Corporation (GAIDC), which unfortunately lacks at present the proper staffing to perform the expected functions. Rather than establishing an additional institution and risking the danger of an even enlarged and complicated network, which easily could result in only more bureaucratic obstacles, it is recommended that the role and function of the GAIDC are supported and strengthened.

#### The State as Entrepreneur, Finance and Investment Climate

As it was mentioned above, the Government has announced its willingness to participate in the establishment of new industries as a partner ("Bootstring" Project). It is not clear, though, where the financial resources would come from with respect to the public sector, as no budget provision has been made, and the almost perpetually critical financial situation of the Government of Grenada has been a well known fact.

In other words, the Government announcement of "Bootstring" seems to carry more the nature of a public-relations campaign rather than the declaration of a policy accompanied by tangible

proof. Nonetheless, the fact that this Project constitutes the first real initiative to reconcile and encourage co-operation of the private sectors since the disturbances during the independence struggle certainly deserves some positive comments.

At the same time, it cannot be stressed too much that the ups and downs of an investment climate largely depend on the psychological perception of potential investors of the prevailing social, political and economic situation. Only a continuous effort and display of goodwill by the Government will eventually lead to a more positive reaction of the Private Sector, a growing confidence to invest, and later attract also foreign investment.

#### 7. RESOURCES

#### 8. MANPOWER<sup>1/</sup>

The population of Grenada is estimated to be between 105,000 and 110,000. A World Bank Projection indicates a population of 108,000 by 1980 at an annual growth rate of 1.5% on the basis of 92,800 in 1970. This is to be seen against an actual annual growth rate of 0.5% during the 1960's.

At the same time, the labour force is projected to grow at a rate of 3.1%, resulting in a labour force of 38,600 by 1980 (in 1970 = 28,400). The respective actual growth rate for the 1960's was 0.4%.

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<sup>1/</sup> This section is based on "The Employment Situation in the Leeward and Windward Islands". Ernesto H. Kritz, ILO Consultant ILO-Caribbean Office. Port-of-Spain, Trinidad and Tobago. November 1977.



At the same time it is interesting to note that more than 65% of all the job-seekers falls into the age group of 14 - 19, while the "prime" age group for the working population (25 - 59 years) carries only 13% of the total number of job-seekers.

The differences between the unemployment rates and job-seeking rates of each age group reflect to a large extent the different urgency that people have as regards accepting a job.

Heads of households (mainly in the age bracket of 25 - 59 years) as primary labour force are forced to accept almost any job in order to maintain their family and household, whereas the secondary labour force (mainly the youth) has a lesser responsibility on the household income and therefore are in a better position to be selective as regards the desired job.

This indicates that probably a problem as serious as unemployment lies in the case of underemployment, as underutilization of the potential productive capacity of especially the primary work force is closely related to poverty and unfavourable economic conditions.

With respect to industrialization, this situation indicates quite a large potential of readily available labour force for this sector, although caution has to be given that one has to deal with a largely inexperienced and unskilled labour force. It is estimated that about 1,500 to 2,000 potential workers are readily available, without having to be drawn from other productive sectors.

## 9. NATURAL RESOURCES

With regard to its agricultural resources, Grenada has been fortunate in not being dependent on a single crop, but having three traditional major export crops: nutmeg and mace, cocoa and banana. In addition, other crops like coconut, lime (citrus) sugarcane, cotton (in Carriacou) have been long established. As will be realized, Grenada has mostly been a

"tree-crop economy" and field crop/vegetable farming has, besides traditional subsistence level farming of tropical vegetables and root crops, only been introduced quite recently. The shift from "tree" to "field" with its higher demand - quantitatively and qualitatively - of labour input seems to have constituted not a small problem. Present expansion plans are aimed towards other tropical tree crops, like sour-sop, mangos, avocado, among others, with the view to develop new export markets, selected vegetable production (i.e. pigeon peas, onions, among others) for import substitution purposes, and new varieties of spices to broaden the base for the spice industry.

With respect to agro-based industries, these agricultural resources will serve as input for 2 types of industries:

- a) industries which further process local agricultural produce (heighten the value added), or improve present performance (in case already established);
- b) industries utilizing material which hitherto went to waste or were under-utilized (generation of new raw material, by-product);
  - a) would be i.e. processing of nutmeg - either at the pre-grinding stage or up to distillation of nutmeg oil, of spices, tropical fruits; improved performance of the sugar industry, copra processing, lime processing among others.

- b) would be the utilization of nutmeg and coconut shells, (maybe activated carbon, briquettes), coir products, nutmeg pod (for jelly), maybe banana fibre, and other vegetable fibre.

From the viewpoint of linkage to industrial development, the livestock sector does not play a significant role yet.

Grenada inevitably faces problems of scale, its own geographical limitations, logistical problems relating to the supply of animal feed and to veterinarian as well as management supervision. A project with external assistance has been launched to introduce sheep-raising in Carriacou, but on the main island Grenada more possibilities seem to prevail for pig raising and poultry production than cattle raising.

On the forestry resources, an inventory is currently undertaken, the results of it will shed some light on the situation since the last survey was carried out in the early 1950's. The Forestry Division of the Ministry of Agriculture has to operate under an extremely light budget, which affects the anyhow small reforestation programme. Next to further extension of the feeder roads network, introduction of proper forest management and supervision and acceleration of the replanting programmes are of high priority. Simultaneously, introduction of a forest-related legislation appears to be of urgent matter, as more and more high quality timber is extracted from private grounds without being compensated for by a replanting programme. Continuation of ongoing wood-cutting practices could jeopardize the future supply of valued timber like mahogany, teak, cedar and others, as the Government reforestation programme is not at all keeping pace with the extraction.



A Government operated Timber Development Centre for preserving and treatment of timber has been partly destroyed by fire, a renovation or even reconstruction of the treatment facilities appears to be an attractive step, especially in the light of emerging potentials through thinning and sapling of earlier planted trees for use as electricity/telephone poles, building materials, etc.

Of the fishery resources, an industrial utilization of these seems to be viable for the species of flying fish, which has a long (approximately 8 months) season and is the only type really to occur in abundance. Initial operations could commence solely with freezing, and later add preparation of fish meal (utilizing flying fish and other white meat) as a source of cheap protein for the local market, as well as the sub-regional market.

Depending on the development of tourism catering institutions, a small-scale filetting operation might become viable.

#### 10. MINERAL RESOURCES

Being an island of volcanic origin, volcanic ash, pumice, laterite clay and some mineral springs are the most prominent mineral resources in Grenada. Little limestone is found, making it unattractive for industrial use, but the possibility of its existence in a larger volume in the island of Carriacou is there, and needs further investigation. A number of geological surveys have been carried out, but little in-depth survey on the quality and extent, including actual probe-drillings, has been implemented.

Concentration of follow-up activities on possible utilization of the laterite clay for building materials employing new technologies (e.g. LATOREX), testing of the volcanic sedimentary material on its puzzolana effects for subsequent employing of an almost identical technology as LATOREX for building material, in-depth studying of the mineral springs for their suitability for human consumption (in view of the growing tourism industry), is recommended.

#### 11. ENERGY RESOURCES

One of the major constraints (disadvantages) for Grenada has been the dependency on imported fuel/energy sources. Presently electricity is provided by a company operating a joint ownership basis with the Government, the diesel fuel is imported from Trinidad and Tobago, the installed capacity is considered sufficient to accommodate for any major industrial establishment in the coming years.

However, the search for alternative sources of energy merits high priority, with areas of solar energy, bio-mass, and wind seeming to provide the most attractive options.

Especially establishment of small bio-gas power plants in the rural areas, recycling agricultural waste sewage seems to be most promising.

#### 12. FINANCE

As is probably the case with all other Governments in the ECCM area, the Government of Grenada has constantly been facing serious budgetary problems, thus limiting its capacities to contribute to the financing of industrial projects. Recently, with the introduction of the Bootstring Project, which aims at accelerated industrialization and employment generation, the Government has expressed its willingness to more actively

assume a role as entrepreneur through joint ventures with the private sector. A participation-guideline of up to 33 1/3% was indicated. It has not been made clear, though, which resources would be tapped for these purposes.

The principal role of the Government will continue to act as the pipeline, or the initiator of contacts and negotiations between external/foreign financing institutions, or entrepreneurs, and local investors; and through granting of fiscal incentives as well as clearing presently still existing psychological barriers (as discussed earlier) to stimulate and create a sound investment climate.

The bulk of financing, and initiatives for investment would therefore have to come from the private sector. Unfortunately, no statistics are available on the level of retained net profits of manufacturing units, or the internal reinvestment rate.

The commercial banks can be judged to have provided the main part of local capital invested in the 70's in establishing manufacturing units. However, industrial loans have remained at a stagnant level, not at all keeping up with the increase in money supply. The principal reasons for it have been:

- a) general feeling of insecurity as to the political environment, leading the banks to adopt an extremely cautious attitude towards embarking on industrial loans;
- b) inability of local applicants in general to supply adequate preinvestment information and documentation as required by the banks; and
- c) the absence of an active section within the banks to identify and promote industrial projects.

Presently the commercial banks do carry quite an amount in liquid assets, which according to them, they cannot invest, due to the absence of "good" projects.

The Grenada Agricultural and Industrial Development Corporation (GAIDC) which is a successor institution to the former Grenada Agricultural Bank (GAB) and the Grenada Development Corporation (GDC), provides credit schemes for the development of smaller industries:

- a) the small industry credit (SIC) which provides for loans ranging from EC\$6,000 - 100,000 for applicants whose net worth does not exceed EC\$150,000.
- b) the recently introduced Agricultural and Industrial Credit (AIC) scheme, which complements the SIC line and has a loan ceiling of EC\$270,000 to borrowers whose net worth exceeds EC\$150,000.

Both schemes, which are on medium or long-term basis (up to 20 years repayment period), have been established through the Caribbean Development Bank (CDB) as the lender to the GAIDC, which in return sub-loans under these credit lines. But in case of the SIC, which was approved by CDB in 1973 to the former GDC, no commitments or disbursement were ever made, and the AIC, having been introduced in 1978 has not seen a disbursement either. The reason for this poor performance is to be sought in the weakness of the professional staffing structure of the GAIDC, where no industrial officer is appointed to assist applicants in the preparation of their documents, or is able to do some appraisal activity. A loan officer from the CDB has to be called once in a while to work on the applications, but it is evident that precious time is lost, and personal relations with the applicant are suffering from this situation.

As regional institutions, the CDB and the Caribbean Investment Corporation (CIC), - see also under Introduction - do provide for financing of industries. The relationship of Grenadian entrepreneurs and the CIC seems to be very cool, however, and complaints about the long waiting period for CIC to appraise and make final decisions has deterred not few businessmen to search for other financial sources.

The Centre for Industrial Development (CID) of the EEC/ACP "Lomé Convention" Secretariat has established an "International Business Opportunities" noticing system, which tries to "marry" entrepreneurs from the European Community with those in the ACP countries. This experiment might become a useful instrument for Grenadian businessmen, who have identified an industrial opportunity but lack the technological know-how or finance, to implement.

The Industrial Development Fund of UNIDO is another alternative source for financing, as will be a number of bilateral donor agencies. Of the non-Governmental organizations, the Inter American Foundation CADEC, OXFAM, among others, have indicated their willingness to sponsor small-scale projects.

As can be seen from the wide range of financing alternatives, finance is not the real constraint for the immediate future. It is more the expertise, experience and diligent follow-up activities to transform a project idea into the implementation/operation stage, which is not readily available in Grenada.

### 13. MAIN PROJECT ACTIVITIES

#### 13.1 Institutional Setting:

In Grenada the Associate Expert was attached to the Department of Planning, Development and Training of the Prime Minister's Office. The Associate Expert was directly responsible to the Permanent Secretary of that Department, but on day-to-day work related more to the Assistant Secretary, as the Permanent Secretary also had to fill in the post of Cabinet Secretary and therefore burdened with other workload. The decision to attach the Associate Expert to the PD & T Department came as a result of discussions between the Government Secretary and the then Project Manager.

Other possible alternatives would have been the Ministry of Finance, Trade and Industry, and the Grenada Agricultural and Industrial Development Corporation (GAIDC). The former suffers from a serious shortage of staffing to the extent that the Permanent Secretary for Trade and Industry is the only officer normally dealing with industrial matters. The latter still has to establish itself, that is, it has not yet overcome the initial management problems, as well as constraints of professional nature.

The decision to attach the Associate Expert was probably carried by the wish to familiarize and involve him to a higher degree with/in the central decision making process than would have been possible if he had been seconded to another Government Agency.

On the other hand, due to the shortage of staffing at the Planning Department, and also to the nature of that department as the central co-ordinating agency of the development process, the Associate Expert got involved in substantial activities

other than in the industrial field and also at times acted quasi on an OPAS basis in assisting the Planning Department. Fortunately this situation - and the fact that during the period when no Project Manager was present on the Project the Associate Expert had to get involved on his own initiative into activities to make himself useful - allowed the A.E. to be flexible in his work programme as well as with working relationships, so that contacts were established to other Ministries (Finance, Trade and Industry, Agriculture, Forestry and Fisheries, Social Affairs) the GAIDC, the Marketing Board, the Community Boards (Cocoa, Banana, Nutmeg) the Private Sector, other UNDP Sponsored Projects and to other international and bilateral agencies (OAS, CIDA, etc.)

Activities during the assignment can be classified broadly into:

- Data collection, survey and research
- Assistance to the Planning Department  
(Planning/Programming - others)
- Projects preparation

### 13.2 Data collection, Survey and Research:

Given the lack of established data on the performance of the industrial sector, this activity was the pre-requisite for any further substantial work in the industrial field. Immediately after arrival at the duty station, a methodological survey of the manufacturing sector was carried out. The output of the survey has found entry into studies and reports prepared by various international organization (World Bank, COB) referring to the industrial sector in Grenada.

A number of local (market) surveys were carried out, through combinations of interviews with importers, trade statistics and own industrial survey results. The areas covered were: fertilizer, textiles, cement, fishing boats, etc.

The fertilizer survey was carried to feed input for regional study sponsored by CIDA to look into the possibility of setting up a fertilizer bagging plant. Other results were sent to the ECCM Secretariat. Unfortunately the data flow with the ECCM Secretariat has always been a one-way one, no information could be obtained on several requests for regional statistics, data.

The absence of regional data severely hampered market identification and targeting in cases of projects of which it was thought that they would be too large for a local (national) market, but could be attractive on a regional scale (e.g. galvanized nails, PVC-pipes).

Shortly after arrival at duty station, upon request of the UNDP Multi-Sector Regional Planning Project for the Caribbean Community (Trinidad), data in the agricultural sector were collected and forwarded, an assignment which familiarized the Associate Expert with the bottle necks of data/statistics collection.

Unfortunately the Building of the Ministry of Agriculture had caught fire in 1975, destroying the agricultural records and documents.

The UNIDO Project made available the services of an Economic Geologist, who visited Grenada for a brief survey tour. The survey indicated that there is no hope in Grenada for a lime deposit of a size suitable for industrial use. However, there is a possibility to exploit the clay deposits for the manufacturing of building bricks utilizing a new technology. (See under Recommendations).

Contacts were established with the Japan Consulting Institute and CECOCO, as well as with the small Industries Loan Officer of the CDB to obtain information about what could be described as "Appropriate Technology". (See also under Recommendations)

Research was done into available literature on bamboo and rattan cultivation and processing. The obtained information was passed over to the Forestry Division of the Ministry of Agriculture.



13.3 Assistance to the Planning Department (Planning/  
Programming)

Soon after taking up duty in Grenada it became evident that most of the project activities had to be carried out parallel with whatever request there was in the Planning Department to be met.

Activities of this kind covered areas of:

- a) planning, preparation and co-ordination of visits of missions from international agencies;
- b) counterpart functions and/or assistance to the missions;
- c) functions as liaison between the Government and the private sector;
- d) assistance in the processing of applications for fiscal incentives;
- e) assistance in the preparation of the "Bootstring" project;
- f) assistance in the review of a new application form for fiscal incentives.

These activities in themselves are self-explanatory, only a short comment on the functions a) and b) is given:

Missions covered included: The U.S. AID - Missions in Autumn 1977; especially for the Agricultural mission a first programme of ongoing and planned project was prepared indicating priority areas and ranking, which subsequently has been repeatedly revised and presented to the interagency mission of the Steering Committee for Technical Assistance under the Programme of Economic Development in the Caribbean (under the co-ordination of the World Bank).

The World Bank mission in February 1978, (under the above mentioned programme) when a public sector investment programme and project profiles for the period of up to 1981 was prepared.

The CID (Centre for Industrial Development of the EEC/ACP Secretariat, Brussels) in June 1978.

The FAO mission from the Latin American Office (Santiago, Chile) in Autumn 1978.

The Interagency mission of the further above mentioned Steering Committee for Technical Assistance in October 1978.

And further missions from the CDCC (ECLA - Trinidad), BDD, etc.

The output of these activities is hopefully reflected in increased flows of technical as well as financial assistance to Grenada by the international community.

However, it is regrettable that these functions were not carried out by a local officer, as these constitute in themselves a welcome training opportunity and the chance to get acquainted with the procedures of international and bilateral donor agencies.

Even more, the fact that the Associate Expert often had to serve as the bridging element between the Governmental and the private Sector, illustrates one of the big problems existing in Grenada, i.e. the state of non-communication and non-confidence between the two sectors, which is detrimental on creating a healthy investment climate.

#### 13.4 Projects:

Project identification and preparation related activities had their origin in three different criterias<sup>1/</sup>.

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<sup>1/</sup> Not seldom the origins overlapped and combined.

1. Priority projects requested by the Planning Department to be covered.
2. Project ideas being brought forward by local businessmen.
3. Project ideas identified as a result of surveys and/or studies of readily available information.

Naturally the approach of the Associate Expert had to vary accordingly.

A request by the Planning Department to assist on a specific project preparation meant that the Associate Expert got thoroughly involved in the formulation and preparation of the project (document). A request by a local businessman (as a result of an "open door policy", fortunately a lot of businessmen made use of this service) was considered to offer the chance of bringing about some training opportunities. Assistance was given in identifying the data required, suggesting methods to obtain them and attempting to elevate the exercise to a stage where the concept of a financial analysis could be introduced<sup>2/</sup>. The rationale behind the approach was that "as the private businessman has to invest his own money into his own project, this would provide enough incentive to interest him in the preparation stage and familiarize him also with rudimentary management concepts").

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<sup>2/</sup> Normally this type of assistance should be dealt with at the National Development Corporation, in case of Grenada GAIDC. Unfortunately the GAIDC so far lacks any professional expertise (i.e. staffing) in the industrial sector, thus most of the applicants for GAIDC assistance were referred to the Associate Expert.

Unfortunately this approach was not often successful in as most of the "clients" usually did not return after the first initial sessions: "it was too much work" (authentic statement of one "Client").

This is an area which definitely should be given attention to in the future. The development of the small enterprises will not only economically, but also socially play a crucial role for a successful economic development in Grenada, as well as throughout the region.

In the case of projects identified by the Associate Expert himself, the major constraint was that he somehow had to work in a sort of "vacuum" i.e. the Government of Grenada lacked and still lacks an officer who would deal full-time with the industrial sector. This not only resulted in a foregone chance for counterpart training, and proper co-ordination of industrial activities in the Government machinery but also the concern is there that recommended follow-up activities might be substantially slowed down.

One of the Government of Grenada's priority project has been the accelerated propagation (of planting material) and replanting of Cocoa. Tentative agreement had been reached that CIDA would finance a cocoa project. (The idea existed since late 1976). But it was revealed that the Ministry of Agriculture had no Agricultural Economist. The Associate Expert was then requested by the Planning Department to prepare the project and financial cost benefit and analysis. (A first paper with technical/agronomy explanation had been prepared). The project proposal was prepared, and later, an Addendum Project (Direct Assistance to the Cocoa growers) was added to it. Both proposals are now being reviewed by CIDA.

The successful implementation of these cocoa projects would increase Grenada cocoa production up to a level where further processing of cocoa beans in Grenada (into cocoa paste/liquor and/or cocoa butter) could become an attractive alternative.

The next priority project at that time (late 1977) was a Nutmeg Disease Research Project; ground work was laid for the first preparation of the Project Document and handed over to the Caribbean Agricultural Research and Development Institute (CARDI)<sup>1/</sup> CIDA has approved it and the Project is about to be implemented.

The priority in early 1978 shifted to the rehabilitation of sugar cane. A first project proposal, which was prepared by the Sugarcane Farmers Association, was revised under the supervision of the Associate Expert. This project envisages to deal with all aspects of sugarcane farming, credit scheme, and processing. It is also being reviewed by CIDA.

Together with the FAO National Agricultural Development Project, the Associate Expert investigated and identified the constraints and limitations the local processing of limes has to face. A survey report was prepared with recommendations. As a resulting first step, the Commonwealth Secretariat through the Commonwealth Fund for Technical Co-operation (CFFC) has been requested to make a lime expert available as a consultant.

The Forestry Division of the Ministry requested assistance in the formulation of a Project for the renovation and expansion of the Government Timber Development Centre (saw mill and treatment facilities) in conjunction with production of telephone and electricity poles. This project is in the preparation stages.

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<sup>1/</sup> Executing Agency for the Government of Grenada.

With the announcement of the "Bootstring" Project by the Government of Grenada, the Associate Expert was requested to assist persons who submitted project proposals, with the review of the proposals and preparation of a project profile. Concrete proposals being forwarded to him were: jams and jellies production, pottery, handicraft, agricultural (vegetable) production and storage facilities. All proposals were submitted by Government Officers of the respective Ministries. The co-operation with them was constrained as they could not work along on these reviews on a full time basis. Progress was slowed down considerably.

The Pottery and the Agricultural Project never overcame the initial review stage, as the respective officers, probably due to above mentioned reasons - "abandoned" the project. Experiments/trials were conducted with jelly production, but no conclusive results were arrived at (on the technical side). A preliminary project profile was prepared but still lacks a number of vital data. The completion should be fairly easy, as all that is required is filling the required data and computing. A revised project proposal was prepared by the Handicraft Department. It is in the stage of financial assessment.

With regards to project proposals brought forward by private businessmen, these covered areas like: Coir product, soft drink bottling, handicraft production, galvanized nails, yoghurt production. Most requests were for assistance in preparing loan applications to the GAIDC, CIC and other financial institutions, others related to preparation of cash-flow tables, financial analysis or again simply to comment on their project ideas.

The UNIDO Project under the present team-leader has focused on Spice-processing as the most promising project for Grenada.

As mentioned above, the OAS study findings will provide an important input into the UNIDO-sponsored activity. In the meantime contacts with an American spice company were established and a first shipment of Grenada spices was shipped to them for laboratory testing.

During the visit of the UNIDO Geologist a mineral spring was visited and samples taken for consumption. It is agreed that samples of the same water will be forwarded to a balneological institute as soon as UNIDO has signed an agreement with one such institute. A mineral water bottling project geared towards the tourist market might evolve.

An attempt was made to introduce a new type of handicraft based on spices. Samples were brought in from Salzburg, Austria and forwarded to a local handicraft shop. The first encouraging Grenadian spice handicraft products have now been put for sale.

It is recognized that most of the projects do require a concentrated follow-up effort. Again here it is regrettable that there is no Government officer dealing with industry full time, and also that replacement, for the Associate Expert, if any, will, given the normal recruitment procedures of international organization, be provided after a considerable time-gap.

The Associate Expert has arranged with the resident OAS Agricultural Economist, Mr. Jack Young, (also attached to the Planning Department), to hand over the various project data to be followed up by him as long as his own project activities do allow. It is also proposed for the UNIDO Project to contact this Expert on project activities in the interim period before replacement arrives.

13.5 Main problems encountered during assignment:

The job description was sufficiently broadly termed (i.e. on the other hand, not very specific) to encompass every activity taken up by the Associate Expert. However, there was no clear directioning in the first period.

As the job description provided for a regional assignment/duty station Grenada/. assignments and requests first came from the ECCM Secretariat for regional projects. The Government of Grenada regarded the Associate Expert more as a single "national project", with activities to be concentrated on local/national projects. Given the lack of available local expertise and staffing, and the amount of work to be done (in the industrial field) on a national level, the Government did not warm up to the idea of the expert being taken away by regional (ECCM) assignment. This led to some collisions of interest in some cases, but in time it was established that the Associate Expert would work primarily on national projects.

Little information was readily available about the industrial sector of Grenada, so that work had to start from scratch.

The vacuum at the Project Management level created through the absence of a Project Manager for about 8 months was unfortunate as no technical guidance was available, and the ECCM Secretariat did little in order to at least co-ordinate Project activities in the mean time.

Communication proved to be a major problem especially during the period of absence of senior experts/project manager. Little flow of information existed between the Project Headquarters (ECCM) and the "field". The Associate Expert in Grenada and most probably his colleagues assigned to other



islands were all "abandoned" and isolated. Very little guidance was received from UNIDO Headquarters and UNDP either. This lack of technical guidance and project co-ordination was felt inconvenient especially in the beginning, but the situation was quite easily adapted and taken as a fact of life. It even allowed the Associate Expert to become more involved in broader areas and work independently. Nonetheless the absence of a "working team" was strongly felt and project preparation would have been much more accelerated if a team preferably comprising of experts of different disciplines (Economist, Engineer, Food Technologist) worked in allocated areas of responsibilities.

Requests repeatedly sent for data (regional, trade/production statistics) to the ECCM Secretariat were given no feedback thus making the preparation of project data very difficult.

Assignment with the Planning Department implied simultaneous involvement in a number of different activities. He was at times both the Industrial Advisor as well as "his own" local counterpart and Secretary, which slowed down the progress on some project work. No training of counterpart officers could be undertaken, hence, the follow-up of the activities is to be given due consideration to secure continuity. It is most unfortunate that the Government failed, in spite of repeated suggestions, to appoint a full time Industrial Officer who would co-ordinate industrial policy matters and activities.

The lack of "petty cash" provision was noticed (e.g. funding of some trial operations-jellies/shipping of samples, etc.) but no response was given by the Project.

The one problem encountered in Grenada is that passing missions from international (Donor) agencies do often, out of carelessness, come up with some "weird" project ideas (not seldom just out of their heads) - without having studied the local conditions - which are then enthusiastically accepted by the Grenadian side. Naturally nothing evolves out of these ideas but the damage is there, in as coming out of the mouth of a foreign expert it will be now believed that "this Project" should be feasible. This produces an illusion that glamorous potential exists, where in fact there is only little. It also prevents the local side to concentrate on a number of selected projects, with the result that project ideas float around but none is seriously intensively studied, and serious preparation of projects never takes place. These "incidents" are quite embarrassing for the resident experts, who are trying to work on rest projects, and trying to bring the expectations of the local people to a realistic level.

#### 14. UNIDO PROJECT - OBSERVED PROBLEMS

##### On the Objectives

The UNIDO Project has been introduced to assist the ECCM Secretariat in the promotion of industries/industrialization in the region as a whole, as well as in the institution-building process of the Secretariat.

However, in the past and at present, a clear consensus in the region on the role of the ECCM Secretariat could and can not be observed. Particularly with respect to the development of the industrial sector, "National" feelings as against "regional" are running high, and the ECCM Secretariat has not been able to establish itself as a commonly accepted and respected authority. In all fairness it should be mentioned that the Secretariat was probably not given the necessary administrative means and political decision making power to achieve this status.

The consequences for the UNIDO project have been that, in as far as project members have been stationed in the "field" (a member country) and worked on national projects, their presence was in general accepted and appreciated, but on a regional level, the project did not have the desired impact as the results were not absorbed by the ECCM - Secretariat, or if absorbed, then not diffused from their side as a "regional thinking" to the member countries.

On the set-up and project management

Through the course of the project duration of three years and nine months, the course of it was illfated, as during this period the project has seen three different project managers/team leaders with a period of 8 to 9 months of vacancy between the second and the third team leader. This frequent change inevitably affected the continuity of guidance and direction for the project and its members and also did not contribute to establish confidence/trust on the side of the Governments of the area in this Project.

The Project has constituted of a team of 2 or 3 senior experts based in Antigua (ECCM Secretariat) and 4 associate experts in different member states. Due to the above mentioned reason, as well as physical (transportation, communication) and financial constraints, co-ordination of Project activities has been found to be one of the biggest bottlenecks. The isolation of the associate experts led to more emphasis being put on local/national assignments.

An evaluation of the Project was carried out by a mission in December 1978, at the end of the scheduled project duration. By that time, only two senior experts (team leader and economic geologist) and one associate expert were still in the region. This implies that at the beginning of Stage II Project (what probably will be the case) serious personnel problems will again occur, considering the fact that recruitment of

international staff will require at least 10 months. This gap of about a year could endanger continuity of and follow-up on (on-going) project activities, especially because in probably most of the duty stations of project members training of counterpart officers was not realized.

Scheduling for an evaluation mission to visit the project area in spring/summer 1978 might have proven to be of better timing to ensure a smooth evolution/button-touch of the Stage I Project to Stage II.

## 15. RECOMMENDATIONS

### 15.1 General Objectives of Industrial Development

Being a young country still and having experienced considerable difficulties at her birth as an independent nation, Grenada has encountered (and still does) numerous constraints (organizational, administrative, technical and financial) on the formulation of government policies. Agriculture being the main economic pillar, an agricultural development plan was the first to be worked on.

An industrial development plan has yet to be formulated but it can be said that in the context of the overall socio-economic development of Grenada, the industrial development will have to comply with the following objectives:

- diversification: to add to the traditional pillars of the economy (the three main export crops and other agricultural activities) a healthily growing industrial sector contributing to the expansion of the economy through increased value added per worker and, thus, increased GDP;

- employment generation: and thus improving the worrystate of youth unemployment;
- stabilizing the balance of payment situation: through either increased foreign exchange generation (exports) or saving (import substitution);
- enhancing also the development of cottage industries and small business enterprises especially in the rural area to provide for an integrated rural development;
- stimulate use of hitherto unused local raw materials and other natural resources;
- development of the human resource potential of the youth through diffusion of socio-economic productive skills (mainly by means of seminars, on-the-job training) and thus contributing to their positive self-identification;
- production of socially desirable goods to accommodate most urgent basic needs of people in Grenada;
- distribution of income in a just and equal manner.

#### 15.2 Some policy guidelines

In order to achieve these objectives, following basic policy guidelines for the next years up to the first half of the 1980's are considered:

- industrial growth: an annual growth rate in the manufacturing sector of 10 - 15% is aimed at;
- structure of industry: (1) the promotion of traditional small-scale industry (cottage industry) in the rural area based on locally, readily available raw materials (e.g. some types of food processing, confectionary, handicraft). The organization and monitoring of this sector will be one main activity of the Government;

(ii) promotion and/or establishment of some major industrial plants aimed at import substitution based mainly on raw materials made available through increased local agricultural production (e.g. edible oil, sugar, processed fish, etc.) and utilisation of hitherto unused resources (e.g. energy: solar, bio-mass, etc.; building materials);

(iii) promotion and/or establishment of export oriented industries where comparative advantage can be achieved. This area can be divided into three sub-areas of interest:

- (a) partial or, if possible, full processing of traditional agricultural export commodities to increase the local value added,
- (b) promotion of export manufacturing activities already being operational at present (like now on a small-scale furniture and garments), and
- (c) creation of new specialized areas where Grenada's unique position leads to an identification of internationally comparative advantage (particularly in the maricultural sector some possibilities might exist with some species).

The successful use of the regional industrial development machinery will become more and more important.

In this context it is worthwhile to note that in general, particularly in case of small countries, export oriented industries are recognized to be more desirable than import substitution projects aimed at local market as the former will (a) be capable of generating more foreign exchange; (b) due to the advantages of scale produce at lower cost, and (c) for the same reasons again also generate more employment opportunities.

On the other hand, international trade only too often has proven to be too sophisticated and demanding for enterprises of developing countries to succeed, due to the huge gap existing inter-alia in marketing know-how, marketing network and finance, as against established organizations in the industrialized world. With respect to extra regional exports, therefore an approach based on joint ventures with established international companies could be considered, utilising the then readily available technology, know-how and network in the production as well as marketing process.

This calls for the creation of a stable and favourable investment climate, for which the first step would be to induce a higher level of local investment.

An investment climate is largely conceived on psychological grounds, a change of which requires a long time, and where no shortcut is possible. Only continuous efforts and demonstration of goodwill will slowly introduce a gradual change in the general perception of the prevailing climate.

In the meantime, efforts to promote local industries based on agricultural production and other local resources will be of highest priority. Although the existing constraints in the field of raw-material supply have been mentioned earlier, the development of agro-industry will be promoted on consideration of:

- its relatively low development costs, low capital intensiveness;
- easy adaptation of existing technologies to more labour intensive ones;
- its likelihood in many cases to be feasible on a small-scale, on cottage-type industry level;

- its socio-economic value as it generates income to the rural society - the majority of the population - through increased agricultural production;
- its additional social value of reflecting on the food and nutrition situation in most cases;
- its capability to contribute to precious savings of foreign exchange spent so far on imported food items;
- its non-negative impact on environment.

### 15.3 Structural reinforcement

In the light of these above mentioned guidelines, following steps with the purpose of structural streamlining, reinforcement, and upgrading of its performance are suggested for the Government of Grenada to take urgently:

1. The integration of the bureaucratic machinery on industrial development and improvement of communication channels also with international organizations;
2. The immediate appointment of an Industrial Development Officer with supporting staff, who will then co-ordinate public sector activities in this field;
3. The upgrading of technical/professional level of GAIDC staff, and improvement of working relations with the CDB;
4. The setting up of a proper management and promotion system for the industrial estate;
5. Reactivation of the Produce Chemist Laboratory out of its present lethargic state;
6. The improvement of contacts with the private sector in order to create an atmosphere of greater confidence; and thus induce a higher level of national private investment;



7. Introduction of a new type of investment allowance for first time investors in the manufacturing sector;
8. The redefinition of the role of the "Bootstring" Committee in context with item 1. and 2. above;
9. The definition of the role of state as entrepreneur, (particularly in connexion with the Bootstring Project);
10. Increase of respect for the functions of the (official) industrial development machinery with regard to minimizing politically motivated interventions, the introduction therefore of a system of "check and balance";
11. Widening the gates for seminars and training courses (e.g. project preparation and evaluation) conducted with external assistance also for participants from the private sector, in order to let more Grenadians benefit from these opportunities.

Above recommendations are of nature that the Government of Grenada is able to implement by itself.

#### 15.4 Technical assistance requests

The following recommendations do relate to areas where international technical assistance could be requested (e.g. from UNIDO):

1. preparation of an industrial development programme and a 5-year plan, which will fit into the overall economic development plan, the macro-framework which is presently being prepared by an OAS team. A senior industrial planner could be requested from UNIDO headquarters to visit Grenada for the drafting of the plan. However, substantial background information would be required to be prepared/provided by the Grenadian side in advance of the mission arrival;

2. Research into and evaluation of possibilities to establish an "Export Processing Zone"; this Export Processing Zone has been implemented with some success in South East Asia, but has more recently become subject of controversy, in as accusatory voices of "new form of imperialism" etc. were raised. However, the proximity of the East Caribbean to the main market, North America, and available manpower resources, might have some possibility for the establishment of such a zone. UNIDO has an office dealing with this subject, which could be approached for an assessment of such possibilities.
3. Preparation of a promotional brochure: "Guidelines for Foreign Investors"; The "Bootstring" Committee reportedly has started preparation of such a brochure, which is a necessary tool to introduce Grenada to potential foreign investors. It is noted that the recent (October 1978) Inter-Agency mission (UNDP/WORLD BANK/IMF/CDB) of the Steering Committee for the Caribbean Group for Economic Co-operation and Development suggested a possible World Bank support on the preparation of this booklet.
4. Preparation and establishment of a "Data Bank" within the GAIDC, or in the office of the industrial officer: The idea of this institution is to prepare project profiles of prospective industries identified as being in line with national development policies, and to supply these informations to the public as a vehicle of assistance to the private sector to identify, design and implement industrial projects. The establishment of a "Data Bank" Programme will require a massive reinforcement of technical expertise presently not available. This gap could be filled with technical

assistance, but the need is recognized to appoint Grenadian counterparts, to provide for an accurate on-the-job training with sustained benefits. The required technical assistance will consist of: 1 industrial economist, 1 industrial engineer, 1 marketing (market research) expert.

5. Business Management/Administration Seminars and workshops.

These seminars and workshops are designed to assist the small business and cottage industries especially in the countryside, who, it has been recognized, often lack the elementary knowledge of management, accounting, inventory control or marketing, and therefore are not able to apply successfully for a loan with financing institutions. Technical assistance could be requested in the form of 3 - 4 associate experts, each one with a different educational/professional background in the field of business administration, who would teach at three or four sites on a rotationary basis, and later, would be posted together to form the nucleus for a small business consultancy service unit, which would be attached to the Industrial Estate Management. Supervisory assistance could come from the senior members of the "Data Bank" team.

Future need for technical assistance might arise with the introduction of new industrial legislations, and at the stage of negotiations with foreign investors.

It is suggested that these recommendations on technical assistance projects in the institutional fields be discussed and followed-up with Mr. R. Noury, the UNIDO Team Leader in Antigua.

15.5 Follow-up activities

Follow-up activities on project ideas and/or projects identified or initiated are of crucial importance to maintain some continuity after the departure of the associate expert. In the absence of immediate replacement for the

associate expert, these recommendations are hoped to be observed by the Government of Grenada, and that assistance is given by other international technical assistance personnel, especially Mr. Jack Young, the agricultural expert from OAS (Organization of American States) who is also attached to the Department of Planning, Development and Training of the Prime Minister's Office.

The following format has been used to describe briefly the projects and required/recommended follow-up activities:

1. Title
2. Objectives
3. Background/Justification
4. The Project - Profile/Idea  
- Benefits
5. Activities required

1. Spice Industry

2. The development of the spice industry in Grenada: broadening the base (production) of spices, and processing (grinding, distillation, etc.) for export to heighten local value added.
3. Grenada produces a wide range of spices - cinnamon, clove, turmeric, tonka beans, ginger, among others, but notably nutmeg and mace, which so far are exported in an unprocessed state. It is recognized that for the majority of spices no sufficient production is recorded to warrant large-scale processing, except for nutmeg. Increase of spice production has already been mentioned as one priority by the agricultural sector. In case of nutmeg the preference of processors in the international field as well as

- of consumers for the East Indian (Indonesian) variety is well-known. However, these trends can change, and other types of processing (e.g. distillation of essential oils have become more and more popular, a situation which warrants serious consideration of the feasibility for the local processing of spices, especially of nutmeg. A first pre-feasibility study was conducted by the OAS, the conclusions of which are expected to provide relevant input for the further project implementation course.
4. The project will first have to undergo the feasibility examination stage, which is expected to cover the whole flow from agricultural production to processing and marketing. Contacts to a consultant company coming from the international spice industry and trade to be contracted have been established (KALSEC Inc. Michigan, U.S.A.) by the UNIDO project. A tentative work programme has been submitted and examined and approved by relevant authorities in Grenada. An eventual joint venture is envisaged making use of the technology and marketing network and know-how of the foreign investor. The benefits of this project - in the event of its successful implementation - will be measured in terms of foreign exchange earnings, employment generation, and secondary effects through the successful linkage of the agricultural and industrial sector.
  5. Follow-up activities now required are:
    - (1) A formal request by the Government of Grenada to the ECCM Secretariat and the UNIDO Project (Team Leader) for assistance in the development of the spice industry.

(ii) Formal statement indicating the willingness to embark on a joint venture with a reknown foreign investor. Selection and appointment of a local counterpart/co-ordinator or committee for which are proposed:

- representative from Planning Development and Training
- manager of the Grenada Co-operation Nutmeg Organization
- Mr. J. Young, (OAS expert).

This Committee will maintain close contacts with Mr. Noury (UNIDO Team Leader) in order to warrant a successful conducting of the feasibility study.

1. Lime Processing
2. To increase efficiency of already existing processing activities and to heighten the local value added through introduction of different (final) products.
3. Lime processing (raw lime juice) has been carried out in Grenada for years until 1977, a private company operated a lime processing plant, but had to close down due to financial reasons. Since then, an ad-hoc operation conducted by the Ministry of Agriculture/Marketing Board has in a very primitive and inadequate way tried to provide an outlet for the lime growers. Upon recommendation of a committee (consisting of Marketing Board Officer, FAO-experts and the UNIDO Associate Expert) a technical assistance project was requested to the Commonwealth Secretariat.
4. (a) The Technical assistance expert will look into the various aspects of
  - (i) improving the performance of existing facilities/operation;

(ii) determining the possible alternatives, including the setting up of a totally new plant with an extended line of more sophisticated products (from raw lime juice to lime oil);

(iii) setting up an overall lime industry developing programme starting from agricultural production.

(b) The benefits can be measured in terms of foreign exchange generated, and socio-politically, through providing a more stable/secured outlet for the lime growers rather than the present ad-hoc operation.

5. The Commonwealth Secretariat through its Technical Division (Commonwealth Fund for Technical Co-operation - CFTC) is now preparing the mission of a lime expert. The provision of a full-time counterpart is required. The resident FAO - projects experts could be requested to participate in this study in the field of agronomy production and marketing, as the need may arise.

1. Jams and Jellies, Condiments, Sauces and Dried Fruit Production

2. The development of a viable agro-industry which so far existed only on a cottage-type scale, into a unit capable of secured production for export requirements.

3. Food-processing is an area Grenada does have potential to develop on a number of selected items, under which these fall. The raw material is available, and supply of it still does not provide a logistical problem in the envisaged scale of the project. For marketing the same can be said; some overseas customers are already secured.

4. The project, which was put forward by a Home Economics Office of the Ministry of Social Affairs as a proposal for the "Bootstring" project, aims to develop a type of industry which is one level above the cottage scale, without jeopardizing those smaller units. It is envisaged that about 50% of the products will be exported to the U.K.

The benefits of the project, besides its financial returns will be, that it tries, for the first time in Grenada, in the field of food processing, to introduce some standardized products and quality control.

Implementation could be optioned in (a) utilizing the Produce Chemist Laboratory as a pilot plant, or (b) utilizing new facilities (including new building, machinery, etc.)

5. A preliminary project profile has been prepared and left in the hands of Mr. J. Young the Agricultural Expert from the OAS, it needs further completion.

Trial runs on jellies were not conclusive yet, they will have to be continued.

Financial ownership and management structure have yet to be determined.

1. Energy Generation

2. To establish an energy source based on locally available materials so far not utilized and diffuse more electricity (gas) energy in the rural areas through a chain of small power plants.
3. Grenada depends entirely on fuel imports from Trinidad for its energy supply, where likely raw material for energy generation is available and not utilized at all:



(more than 2 million lbs. of nutmeg shells, similar to walnut shells, per year, other vegetable fibre material 'bio mass', etc.)

4. This is still in the early idea stage, so almost all depends on the follow-up. The potential benefits are obvious, however; cheaper, more independent source of energy, precious savings of foreign exchange, increased standard of living in the rural areas, etc.
5. Reference Material provided by the UNIDO team leader has been copied to Mr. J. Young for follow-up purposes. In case of utilization of nutmeg shells, a feasibility study is recommended, as little is yet known of the property of nutmeg shells, and possible alternative might include: (a) briquets production or (b) activated carbon production. For other 'bio-mass' or vegetable fibre based energy generation, a pilot plant approach could be considered (with external assistance).

1. Joint Service Centre - Central Workshop

2. To establish a mechanical industries central service workshop for all existing industries in Grenada, which through increased financial backing and improved technology and know-how would be able to carry out servicing and repair work so far not feasible in Grenada due to lack of adequate equipment, machinery, and know-how.
3. A number of service workshops and garages exist in Grenada both within the Public and the Private Sector, however, their range of activity is highly limited through the lack of proper/more sophisticated equipment (due to financial constraints) and the lack of know-how. More complicated repair work has to be done somewhere else, or in many

cases the machine, (or car, etc.) that needs repair, is simply left to decay, thus leading to considerable wastage and at the same time accumulation of unused, but under different conditions probably recyclable metal.

4. The output of this joint service centre would be:
- (a) servicing the needs of private and public sector clients, e.g. garages, factories, agricultural operators, hotels, etc. This activity can be divided into:
    - sub-contracting: repair/maintenance work which cannot be performed by individual workshops or garages due to lack of machinery;
    - maintenance and repair of machinery from industrial enterprises (brewery, garment factories, bottling companies, among others);
    - maintenance and repair of agricultural equipment;
    - maintenance and repair of tourist related equipment (hotels);
  - (b) training: dissemination of technology and know-how, up-grading of skills, also to all the other workshops through organized in-plant training courses;
  - (c) research and development into simple techniques for maintenance and/or new technologies (machine-tools) suited for Grenada's needs and requirements, especially with respect to agricultural equipment. Recycling of available metals and other material will also be main research topics;
  - (d) co-operation of the Public and the Private Sector, as this Project is envisaged to be a joint venture between the Government and the Private Sector, and, hopefully, a foreign investor. This would have immediate effects of psychological nature on the investment climate, being the proof of a solid co-operation between the Public and Private Sector.

5. This project is also still at an idea stage, but first preliminary exchange of views were held with UNIDO Vienna and the CID (Centre for Industrial Development, Brussels). This type of Joint Service Centre workshop has already seen precedences in other developing countries studied, or implemented with the assistance of these two organizations. Follow-up activities. Close contact with them is required, in the meantime, surveys should be conducted locally with the existing garages etc., to assess their needs, existing facilities, constraints and willingness to participate in such a venture. Guidance can be obtained from the CID by contacting Mr. Armani (Head of Training and Technology Transfer Division, CID) and UNIDO - Mr. W.H. Tanaka (Acting Head, Development and Transfer of Technology Section, UNIDO). Mr. J. Young (OAS, Grenada) has promised his assistance.

#### Other Projects

A handicraft project was prepared by the Handicraft Development Centre under the "Bootstring" scheme, it was reviewed and is at a stage, where a financial analysis should be worked out. The document is now with Mr. J. Young.

Follow-up activities recommended for the future utilization of mineral resources have already been indicated in that section.

Other areas with a potential for developing and implementing industrial projects in the future are those, where

- (a) existing - mainly cottage-type industries require assistance in (management) organization: e.g. confection - for local market based mainly on cocoa; spice processing - for local and, later, maybe the regional market

- (b) rehabilitation or expansion of the agricultural production is a prerequisite: e.g. coir products (from coconuts)  
processing of other tropical fruits (mangos, sour-sops), among others.
- (c) positive identification of the quantity and quality of raw materials as well as appropriate technology is required: e.g. banana fibre  
concha shells (for tiles)  
forestry  
fishery

In any event, it is recommended not to embark on too many projects simultaneously, given the constraints in local expertise, and, in case of foreign assistance - limitations in absorbing capacities, but to concentrate each time on a few priority projects.

#### 16: THE UNIDO PROJECT

As already mentioned above the underlying political dynamics of the ECCM area have to be the basic assumptions on which future project activities will be designed. This leads to a project set-up with more emphasis being laid on supporting and strengthening the national industrial development machinery of the various member islands. In the absence of new project members to be recruited yet, the project management will concentrate on a number of selected projects, which have already been initiated (identified and some preparation done). Increased communication with government officers or international staff from other UNDP projects or other organizations is required to secure a smooth continuation of activities on these selected projects.

In the future, further follow-up activities are required for the various project ideas identified and left behind after the departure of the former project members. This means a shift from project identification and preparation to implementation. Criteria of selection and recruitment of future Project Personnel will have to be adjusted accordingly. Experienced experts with engineering background, but with a general knowledge of the project-life cycle would be preferred.

At the same time, a more practical approach to industrial projects should be considered in the form of pilot plant operations instead of an accumulating series of technical studies, especially for cases, where an obvious potential exists like with rural power plants utilizing bio-mass, other agricultural waste and recycling sewage. The same idea as with this "pilot-plant" approach has long been adopted with agricultural projects (FAO has implemented a number of demonstration projects), and it has the benefit of communicating and leaving something tangible as compared to studies which again will produce higher catalytic effects - of course, care has to be taken in the right selection of candidates (projects) for this approach.

The regional content of the Project will be more of an evolutionary type emanating out of the more mature position of the various national industrial development institutions and of the, by then - hopefully - stronger recognized need for regional co-operation, thus becoming more prominent only at a later stage. In this context, the role of the ECCM Secretariat will be to support the various member states in their industrial development activities through providing extensively information on the regional and extra-regional scenery, and markets as well as technological information. It is suggested that the ECCM establish close contacts with the CID (Brussels) and other institutions which function as "marriage brokers".

It is also proposed that the ECCM Secretariat establish a roster of all technical assistance personnel operating in the region with a brief description of their activities, and circulate it to governments and experts likewise, as a first step to minimize duplication of efforts, or costs (through recruitment of new experts) and time loss, when the need for a new expert in the region for a short term assignment, on a specific problem, has to be examined. This idea could then later be expanded to a "pool" structure. Considerable improvement in the level of responsiveness and responsibility on the side of the Secretariat is required.

With respect to the UNIDO project, improvement of internal communication will be a crucial point in order to benefit from the opportunities of such an enlarged information flow. An internal communication system similar to what has been established with another regional project (FAO/CARDATS) indicates a possible future direction.

It should not be forgotten that one of the main shortcomings of the present UNIDO project has been in the field of counterpart provision and training of them - in the ECCM secretariat as well as in the other islands. This situation certainly requires a solution, as without the training and promotion of local human resource potential and expertise, no sustained success will be achieved.

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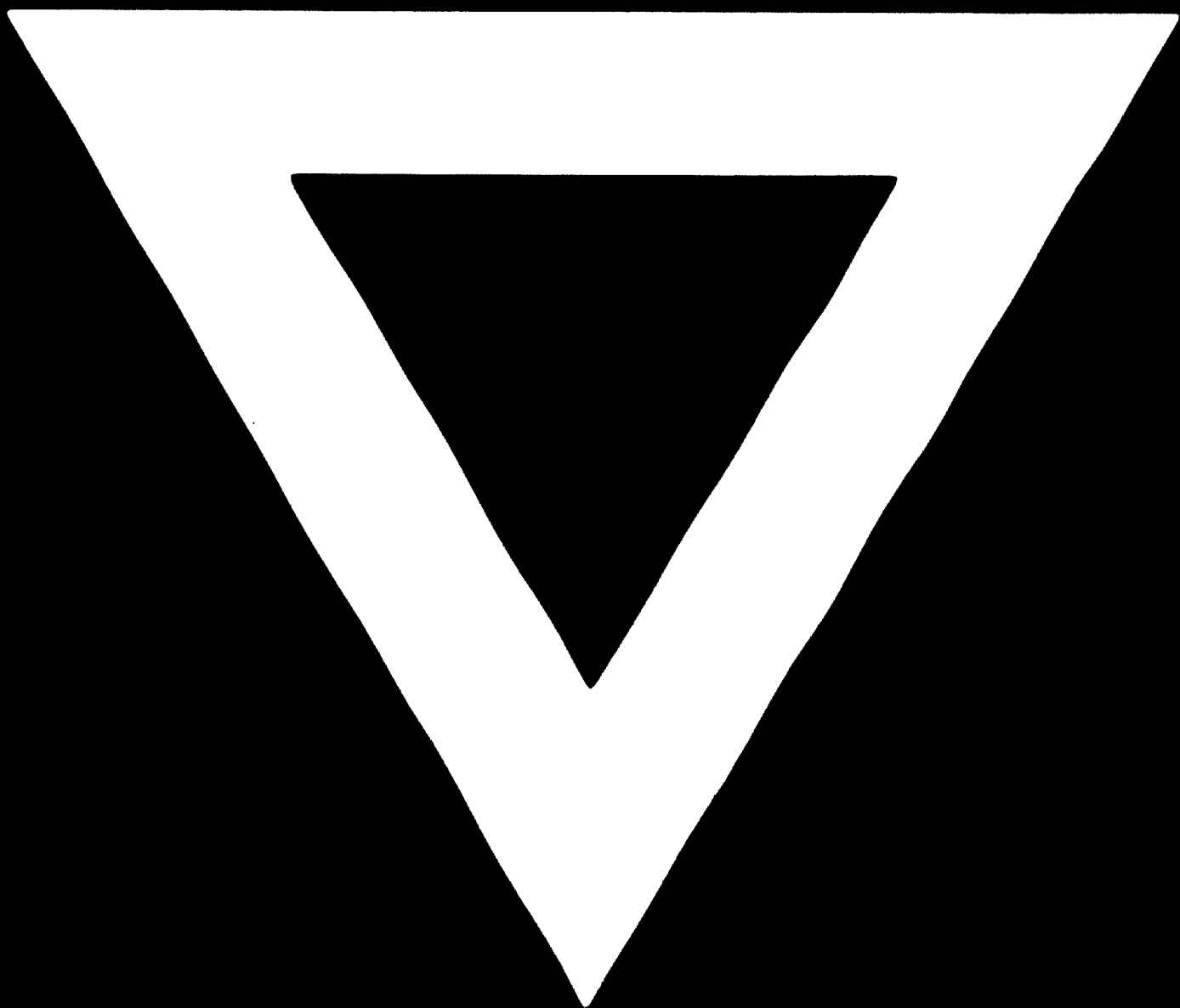
The Associate Expert would like to apologize if in some section the criticism seems harsh, but is convinced that this will be received as a constructive comment, be it to serve as a basis for future discussions.

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