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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

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Final Report

of the

**INDUSTRIAL DEVELOPMENT MISSION**

to

**CARIPPA COUNTRIES**

**December, 1968 - June, 1969**

*UNIDO/IND/23*

**UNIDO, Vienna**

**July 1969**

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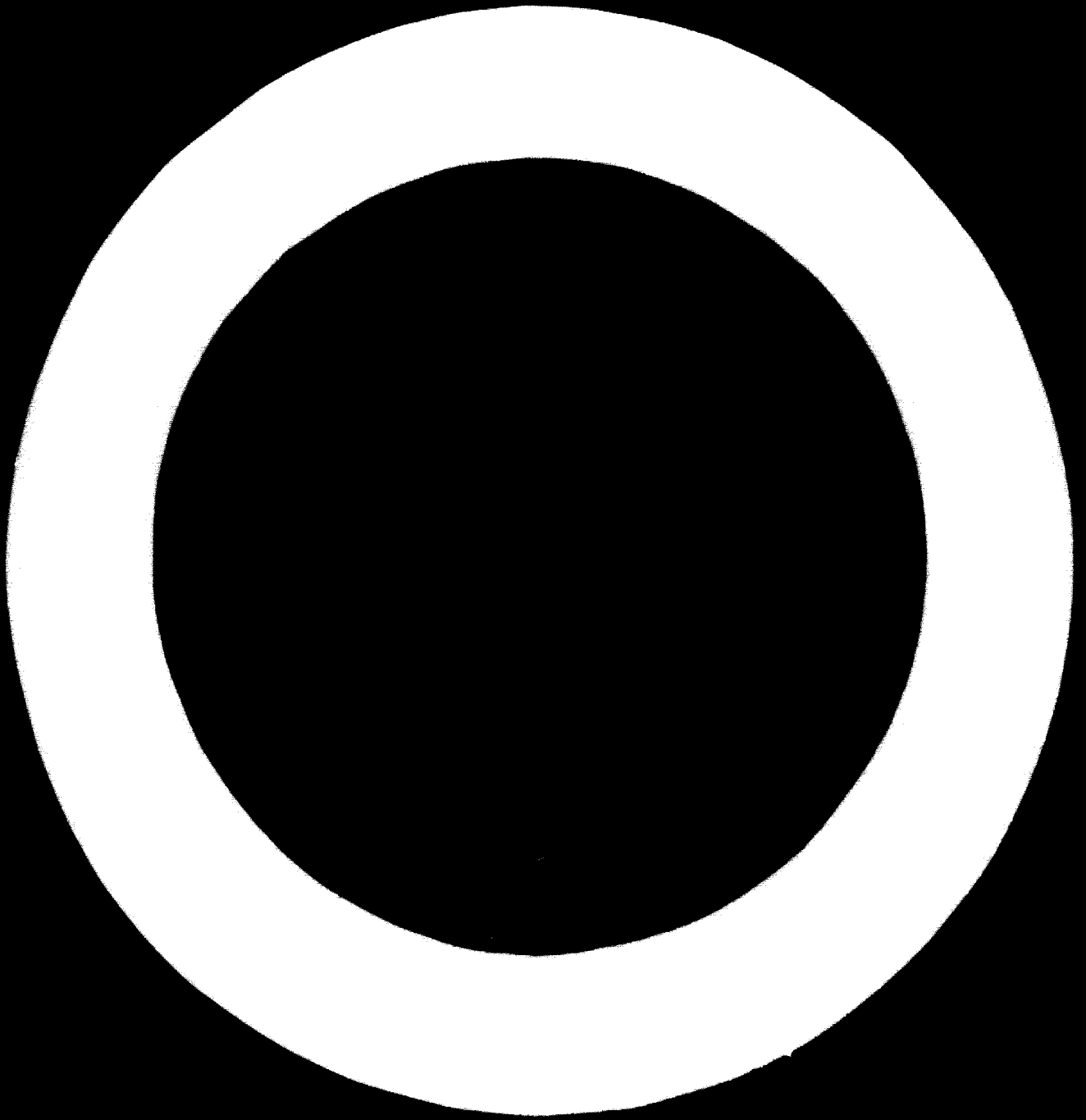


TABLE OF CONTENTS

	<u>Pages</u>
Preface	(i) - (ii)
Summary of the Mission's findings	(iii) - (vi)
I. Main aspects of the general economic background to industrial development in the CARIFTA countries	1 - 7
II. The present structure, characteristics and problems of the industrial sector in the CARIFTA countries	8 - 14
III. Opportunities for establishing specific projects within a programme of regional industrialization	
1. Introduction	15
2. Textile industry	16 - 24
3. Food-processing industry	25 - 33
4. Pulp and paper industry	36
5. Chemical and petrochemical industry	37 - 40
IV. The scope for industrial development in the less-developed territories	41 - 45
V. Policies and measures required to implement a programme of regional industrialization in the CARIFTA countries	
1. Policies discussed in the CARIFTA Agreement	
(a) Tariff and trade policies	46
(b) Incentive policies	46
2. Further measures required	
(a) Definition of Regional Integrated industries	47
(b) Licensing of new industrial projects	48
(c) Location of new industrial projects	49
(d) External tariffs	49
(e) Industrial financing	50
(f) Company Law	51
(g) Foreign investment	51
(h) Industrial standards	52

	<u>Pages</u>
VI. The institutional framework required to implement a programme of industrialization in the CARIFTA countries	
1. CARIFTA Industrial Development Centre	53
2. The CARIFTA Secretariat	54
3. Regional pilot plant project - East Caribbean	55
4. The Caribbean Development Bank	56
VII. Recommendations for a programme of action to follow up this report, and related suggestions for further UNIDO assistance	57 - 60
ANNEX A: The Different Types of Incentive Measures used by CARIFTA Countries	
TABLES: I. Area, population and GDP in 1967 of CARIFTA countries and Belize	6
II. GDP at current factor cost in 1967 of CARIFTA countries and Belize	7
III. Estimated wholesale value of food imported into CARIFTA countries and Belize	35
IV. Estimated current annual food consumption of CARIFTA countries and Belize	36

P R E F A C E

The governments of Barbados, Guyana and Trinidad & Tobago, acting on behalf of all the participants of the CARIFTA Agreement, asked the Economic Commission for Latin America (ECLA) and the United Nations Industrial Development Organization (UNIDO) for assistance in formulating a programme of industrialization in the CARIFTA region. In compliance with this request, a team of three experts was appointed by UNIDO: an industrial economist as the Team Leader for six months, and a food processing industry expert and textile industry expert for a period of four months. The members of the mission arrived at Port of Spain during the last fortnight of December 1968. After briefing sessions in Vienna and Port of Spain, the team assumed duties in the ECLA Office for the Caribbean in Port of Spain on December 23, 1968. The team was later supplemented by experts from ECLA, Santiago on the pulp and paper and chemical industries.

The tasks assigned to the Mission were "to identify and appraise specific industrial projects which could be implemented within a programme of regional industrialization and suggest possible ways of implementing such a programme." The Team Leader was given particular responsibility for "outlining the type of policy required to launch a Programme of Regional Industrialization and the way in which it might ensure that more industries are established in the less developed territories in the future."

After a brief review of the economic conditions in the CARIFTA and the nature of industrial development so far, the report considers the prospects and possibilities for further development of the textile, food-processing, chemical and pulp and paper industries. Wherever possible specific projects suitable for implementation as Integration Industries are identified. Then after examining the scope for industrial development in the less-developed territories, the report considers what additional policy measures are required to implement a balanced programme of regional industrialization and the institutional framework required to implement these policy measures. The report concludes with a suggested programme of follow-up action and identifies the form which further UNIDO assistance might take.

This report of the Mission provides only summaries of the reports of the four industry experts. More detailed reports by the technical experts on the textile, food-processing, chemical and pulp and paper industries will be made available for limited distribution at a later date.

Eleven CARIFTA countries were visited in addition to Belize. These countries are widely dispersed over a thousand miles of sea. Given these circumstances and the limited time available, there were obvious difficulties in collecting sufficient and comparable data to fully examine industrial possibilities in the Region.

However, everywhere the Mission met with the fullest co-operation from the Governments, and we wish to thank all those who gave of their time and energy to help us.

The Mission also wishes to record its appreciation of the assistance and co-operation received from Mr. S. St. A. Clarke, Director of the ECLA Office for the Caribbean in Port of Spain, and from Mr. G. Rampersad, Deputy Director of this Office. Their devotion to the realization of economic development in the area and their deep understanding of its problems greatly facilitated the tasks of the Mission. We would also like to thank Mr. Fabio Arango, Administrative and Coordinating Officer of the ECLA Office in Port of Spain, as well as the secretarial staff of this Office for the assistance they gave. The assistance given us by Mr. Campbell, the Regional Representative of UNDP, and his staff in Port of Spain is also acknowledged.

July 1969  
Vienna

Kamal N. Hosni  
(Team Leader)



SUMMARY OF THE MISSION'S FINDINGS

THE BACKGROUND TO INDUSTRIAL DEVELOPMENT

The CARIFTA Association Agreement has created a regional market of 4.5 million people with an average per capita income of US \$429. Jamaica (population 1.9 million) and Trinidad and Tobago (population 1 million) enjoy a higher standard of living than the other territories.

The industrial sector makes a relatively small contribution to national income, except in Jamaica and Trinidad and Tobago where it accounts for over 15% of gross domestic product.

Chiefly light industries and assembly-type operations have been developed so far. Plants are typically of a small size designed to serve only the local market. Existing policies in many countries permit continuing reliance on imports of parts, materials and components.

In Jamaica and Trinidad, about 25% of the output of the industrial sector is exported. In Trinidad, petrochemicals and fertilizers are the main products exported. In Jamaica, Barbados and some of the other islands, export-oriented industries have been developed to use the skills of the local labour force.

The small size of the market, inadequate machinery in many countries to identify and promote specific projects, inadequate tariff protection, and a lack of appropriate industrial financing institutions have typically been the main obstacles to faster industrial development. In the less-developed territories, inadequate infrastructure has also been a major disincentive.

The signing of the CARIFTA Association Agreement will provide at least limited opportunities to establish larger-size industrial plants covering a wider range of branches of industry to serve local market needs. More export-oriented industries based on the abundant supply of labour and in some cases local raw materials could also be established. However, the CARIFTA governments should not expect industrial development by itself to reduce the high levels of unemployment prevalent in the region. A balanced programme of economic development is needed.

### SCOPE FOR DEVELOPMENT OF FOUR BRANCHES OF INDUSTRY

One of the main aims of the Mission was to identify specific projects in the textile, food processing, paper and pulp and chemical industries which could be established to supply all or a major part of the regional CARIFTA market. Preliminary investigation of these branches of industry suggests that the following major industrial plants could be promoted in the near future:

1. a large modern cotton textile mill;
2. a large textile mill producing man-made fibre and blended fabrics;
3. a plant to manufacture animal feedstuffs;
4. a plant to manufacture corrugated cardboard packaging material;
5. a plant to manufacture caustic soda.

Further investigation is likely to show that a wide range of projects can be established in the food processing industry in such fields as dairy products, meat processing and fish processing. There appears to be scope for local formulation and packaging of a wider range of pharmaceutical preparations, and more local production of cosmetics, soap and toiletries. It might be feasible (given adequate protection) to manufacture some grades of paper from pulp manufactured locally from bagasse mixed with imported pulp.

CARIFTA market cannot support an integrated plant to produce pulp and paper from local timber resources, but detailed feasibility studies may show the possibility of establishing an export-oriented plant. Other new major chemical and petrochemical projects would have to serve principally export markets.

### INDUSTRIAL DEVELOPMENT IN THE LESS-DEVELOPED TERRITORIES

The Mission noted that the less-developed territories contribute roughly 5% of the value added in the manufacturing sector in the CARIFTA region, compared with their population of about 15% of the regional total. Jamaica (excluding the bauxite and aluminium industry), Trinidad (excluding petroleum refining but including petrochemicals and

fertilizers), Guyana (excluding bauxite production) and Barbados together account for 95% of the value added in the manufacturing sector compared with their population of 35% of the total.

When considering policies required to launch a balanced programme of regional industrialization, the Mission considered what steps could be taken to ensure that some Regional Integration industries would be established in the less-developed territories. It believes that both the licensing system, and possibly the harmonization of incentives as well, will have to take account of their legitimate needs.

The Mission has outlined in a separate chapter, Chapter IV, some of the directions in which the less-developed territories can, on their own initiative, expand the range of small industries designed to serve local and export markets. Furthermore, a pilot plant project to investigate new ways of processing agricultural products is recommended for location in the East Caribbean.

#### POLICIES REQUIRED

The Mission proposes that projects supplying all or a major part of the CARIFTA regional market be defined as Regional Integration industries. A regional licensing system is recommended which would permit the governments of CARIFTA to agree on the location of all such new projects. Such decisions should be based on detailed technical and economic studies. The Mission believes that such studies would show that some of the Regional Integration industry projects could be located in the less-developed territories.

A strengthening of the CARIFTA Secretariat and assistance of international experts is recommended to design and implement the regional licensing system, design and implement a common tariff structure for industrial products, and to review the need for new industrial financing institutions and other industrial policy measures.

## MACHINERY TO IMPLEMENT POLICIES AND PROJECTS

The Mission recommends a substantial expansion and strengthening of CARIFTA's institutional machinery to implement policies and projects involving regional co-operation in the field of industrial development. The major recommendations are:

1. To establish a CARIFTA Industrial Development Centre staffed by nationals of CARIFTA countries and assisted by a team of international experts recruited by UNIDO. The functions of this centre are considered in detail in Chapter VI.
2. To strengthen the CARIFTA Secretariat so that it can advise on the formulation and implementation of industrial policies required to launch a regional programme of industrialization; this might be facilitated by a request to UNIDO to supply a group of Industrial Policy Advisers.
3. To consider establishing a regional pilot plant project in the East Caribbean to investigate the industrial processing of agricultural products grown in the CARIFTA region to produce (a) ready-prepared foods for local and export markets and (b) essential oils.

These and other recommendations made throughout the report have been collected together in Chapter VII, which outlines a programme for follow-up action for consideration by Governments and the Council of Ministers. Where relevant, suggestions for further assistance from UNIDO have been made.

I. MAIN ASPECTS OF THE GENERAL ECONOMIC BACKGROUND TO INDUSTRIAL DEVELOPMENT IN THE CARIFTA COUNTRIES

1. The CARIFTA area consists of eleven territories: Antigua, Barbados, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts-Nevis - Anguilla, St. Lucia, St. Vincent, Trinidad & Tobago. Belize hopes to accede to the CARIFTA agreement. At the request of the CARIFTA governments, Belize has been treated in this report as if it was a full member of the Caribbean Free Trade Association. The basic economic data provided in Tables I and II therefore covers all 12 territories.

2. The total area of the CARIFTA zone is 99,485 square miles (256,315 square kilometres). Total population is about 4.5 million and is estimated to be growing at 3 per cent per annum. These basic figures do not give a fair idea of the uneven distribution of land and population among these countries. Belize and Guyana account for 90 per cent of the total area with only 19 per cent of the total population, whilst Barbados, Jamaica and Trinidad and Tobago account for 6.5 per cent of the total area with 70 per cent of the total population. The average population per square mile for this zone is 47 inhabitants; however, the population distribution among the different countries varies significantly. In Guyana, for example, there are only eight inhabitants per square mile while Barbados has 1,495 per square mile.

3. Many of the CARIFTA countries enjoy a standard of living higher than that reached by the majority of developing countries. The total Gross Domestic Product of the area in 1967 is estimated to be US\$ 1,921 million, and the average G.D.P. per capita appears to be US\$ 429. Trinidad and Tobago and Jamaica, which have 65 per cent of the population account for 80 per cent of the area's total G.D.P. The standard of living in the territories varies between a G.D.P. per capita of US\$ 167 in St. Lucia and US\$ 689 in Trinidad and Tobago.

4. Unemployment is a major problem in the CARIFTA countries; it is estimated that the proportion ranges between 12 and 18 per cent of the labour force working age. Export agriculture has been traditionally a large employer of labour, but increasing mechanization in the sector has reduced

the absolute numbers employed. At the same time, new entrants to the labour force have been increasing at the rate of 2 per cent to 3 per cent per year. The need to provide employment opportunities for this increasing labour force has resulted in emphasis being placed on the development of sectors other than export agriculture, including industry. It is, therefore, particularly important to accelerate the pace of growth in the industrial sector. This will also create opportunities for the development of related service activities.

5. Unfortunately, data on employment in the industrial sector are not available for all territories; even those available for Jamaica and Trinidad and Tobago are not comparable. It is, therefore, difficult to assess the precise contribution which the industrial sector makes to total employment. In Trinidad and Tobago, the Survey of Industrial Establishments made in 1957 showed employment of about 50,000; employment in 1968 is estimated to exceed 100,000. In Jamaica, firms operating under the incentive laws employed over 11,000 persons at the end of 1968. Employment in these firms is estimated to be about 15 per cent of total employment in the manufacturing sector. It appears therefore that whilst further industrialization can make a contribution to solving the unemployment problem, what is needed is a programme of balanced development.

6. A fundamental weakness in some countries of this region is the lack of positive and effective national planning; as a result the main economic sectors have developed in isolation. The inter-sectoral transactions which are most important in promoting the growth of a viable industrial sector are minimal. This situation can only be remedied by effective economic and social planning both at the national and regional levels. Its primary objective should be to promote adequate exploitation of the human and physical resources of each country within the framework of regional economic development, and to integrate the activities of the various economic sectors. A suitable policy regarding the flow and use of foreign aid must be established. Measures need to be introduced to increase the volume of domestic savings; at the same time an expanded programme for identifying investment opportunities in the form of specific projects in both the industrial sector and other sectors needs to be developed.

7. A pre-requisite of effective planning and policy decision-making is the availability of comprehensive basic statistics. In some territories in the region, statistics are fairly well-developed, although even in the most advanced, some important statistics are not available in adequate detail. The problem is most acute in the less-developed territories and Belize. This deficiency constitutes a serious handicap to sound planning. It is therefore most important that the Regional Development Agency speeds up the establishment of a central statistical service to provide up-to-date reliable data relating to the various economic and social activities in its member countries. It will also be important in the near future that CARIFTA Secretariat publishes statistics on a comparable basis for the whole CARIFTA area.

8. Effective regional planning for the CARIFTA countries as a group cannot be undertaken unless there is effective planning at the national level. Some thought needs to be given to the problem of co-ordinating the various national plans so that regional objectives are realized. Serious consideration might be given to establishing a Centre for Regional Planning under the control of the CARIFTA Secretariat. The objectives of such a centre might include:

- (a) preparation of a master plan for economic development in the region;
- (b) preparing studies on the regional harmonization of the different national economic plans and policies;
- (c) providing technical assistance in planning and project preparation in the less developed countries;
- (d) providing other advice, consulting services and studies in the field of planning and policy formulation as required.

9. The mobilisation of an adequate volume of financial resources to finance development in this region needs special attention. The CARIFTA member countries, like many underdeveloped countries, suffer from shortage of capital available for investment in the area in an appropriate form. However, a large volume of the area's savings is held overseas as investments at present. It is beyond the scope of this report to make a detailed study of the structure of money and capital markets in the Region, but there is obviously scope for using a greater proportion of these domestic savings to finance local development projects, including industrial projects.

10. The present policy of the Central Bank in Guyana, Jamaica and Trinidad and Tobago aims at controlling only the volume of banking credit. They have not yet tried to implement a qualitative credit control which takes into consideration the requirements of a balanced development of the different sectors of their national economies. Furthermore, the commercial banks' participation in financing development projects is very limited. Industrial development can therefore benefit from a more liberal lending policy on the part of the commercial banks. Similarly, the East Caribbean Currency Authority (ECCA) which controls the monetary system in Antigua, Barbados, Dominica, Grenada, Montserrat, St. Kitts-Nevis-Anguilla, St. Lucia and St. Vincent appears to limit the ability of these Governments to finance their own development projects from local savings. It should be noted, however, that these Governments have made little use of the facility provided by the Authority Act which permits the holding of some Government loan securities. In Belize, the monetary situation is like that in ECCA. There is a need to convert this Currency Board to a central monetary authority with the ability to perform a more direct role in financing development projects.

11. The commercial banks in the CARIFTA region are almost exclusively branches of foreign banks. They pay interest on deposits from 3 per cent to 5 per cent per annum, while loans and advances are made at between 9 per cent and 10 per cent. For industry, their credit facilities usually take the form of overdraft facilities rather than medium and long-term loans; yet hire purchase credit is extended for the purchase of imported durable consumer goods. This policy of financing imports of luxuries or semi-luxuries is a peculiar one in an area where there is a large amount of domestic unemployment, where there is an urgent need to mobilize more domestic resources for development, and where some governments are forced to borrow from abroad to finance their development projects. Left to maximise their own profits rather than maximise benefits to the countries, the monetary and financial institutions invest abroad the funds which they borrow locally. The financial and monetary institutions represent the nervous system of the whole economy, and when the brain, which in this case is the Central Bank, does not function adequately, the development of all



economic sectors, including the industrial sector, suffer from the inadequate financing possibilities provided by the banking sector.

12. The insurance companies operating in this region control a large part of the savings of the community; but they invest only a small percentage of their available funds locally, mostly in real estate. Whilst the nature of their liabilities limits their participation in risky investments, both the Government and industry should be able to raise more long-term investment funds from this source of national savings.

13. Therefore a thorough review of the monetary and credit policy and institutions in these countries is needed. The powers of the central monetary authorities in controlling the financial and banking institutions must be strengthened, not only from the administrative and statistical point of view, but particularly over their investment policy. Without this, it will be difficult to ensure an adequate distribution of investment resources among the different sectors of the economy.

TABLE I  
(page 6)

TABLE I. AREA, POPULATION AND GNP IN 1967 OF CARIBBEAN ISLANDS

Country	Area in square miles (1)	Area in square kilometers (1)	Estimated population (1)	Annual rate of population growth % (1)	Population per square mile	1967 GNP in US\$ (2)	GNP per capita in US\$
Antigua	170	440	60,300	2.2	400	23.6	340
Barbados	166	430	200,000	1.0	1,000	89.7	361
Belize	9,067	23,400	120,300	3.7	13	33.3	291
Dominica	305	790	67,000	1.0	200	13.2	197
Grenada	133	340	200,000	1.3	766	19.1	187
Guyana	63,000	164,000	600,700	2.0	0	187.0	271
Jamaica	4,411	11,400	1,073,000	1.7	1,000	807.1	496
Montserrat	30	90	10,000	3.0	411	3.3	200
St. Kitts	121	310	65,000	1.2	607	22.1	300
St. Lucia	230	600	100,000	1.3	400	16.7	167
St. Vincent	150	390	91,000	0.3	606	16.6	182
Trinidad & Tobago	1,000	2,600	1,000,000	3.1	203	609.1	670
<b>TOTAL</b>	<b>99,403</b>	<b>256,343</b>	<b>6,172,300</b>	<b>3.0%</b>	<b>47</b>	<b>1,901.6</b>	<b>499</b>

1/ Weighted average for the area  
 2/ Sources: Data from United Nations Statistical Yearbook 1967  
 3/ Sources: See Table II

TABLE II. EMP. BY ECONOMIC ACTIVITY IN 1967 OF CUBITA AND MELIJE (6 US MILL)

SECTORS	ANTIGUA	ST. JOHN	DOMINICA	GUERNSEY	GUAYAMA	JAMAICA	MONTSERRAT	ST. EUSTACIUS	ST. LUCIA	ST. VINCENT	TOTAL	PERCENTAGE DISTRIBUTION
1. Agriculture, Forestry, Fishing etc.	1.5	23.9	13.8	6.6	42.1	94.6	0.6	1.0	6.3	6.0	253.8	13.8
2. Mining & Quarrying	-	-	0.4	-	21.0 <sup>1/2</sup>	77.3 <sup>1/2</sup>	-	-	-	-	204.7	14.8
3. Manufacturing	1.0	7.6	3.1	1.2 <sup>1/2</sup>	24.3 <sup>1/2</sup>	122.0 <sup>1/2</sup>	0.1	1.0	0.6	0.2	271.5	14.1
4. Construction	0.3	7.6 <sup>6</sup>	3.4	1.3	10.8	87.6	0.6	0.8	2.1	1.9	160.0	8.3
5. Wholesale & retail trades & Transport, Storage & Communications	3.9	24.5 <sup>6</sup>	6.7	1.4	33.3	173.0	0.6	3.1	2.6	3.4	300.4	19.9
6. Central & Local Gov't	3.8	12.9	2.0	2.9 <sup>1/2</sup>	3.1	23.0	64.0	0.9	3.8	2.6	236.5	10.2
7. Ownership of Dwellings	1.1	3.5 <sup>6</sup>	2.0	1.7	1.4	-	2 <sup>1/2</sup>	26.6	0.8	1.1	26.9	3.5
8. Miscellaneous	2.2	9.7	6.5	0.8	2.3	10.3 <sup>1/2</sup>	163.8	0.3	2.1	1.3	306.3	15.9
<b>TOTAL</b>	<b>23.6</b>	<b>89.7</b>	<b>53.3</b>	<b>13.8</b>	<b>107.8</b>	<b>887.1</b>	<b>3.3</b>	<b>22.1</b>	<b>16.7</b>	<b>16.6</b>	<b>1921.6</b>	<b>100.0</b>

Note: Converted at official exchange rates prevailing as of February 1969. All data are provisional

1. Mining included with manufacturing
2. Petroleum refining included with mining and quarrying
3. Alumina processing and petroleum refining included with mining and quarrying
4. Electricity and other public utilities included with government
5. Ownership of dwellings included with miscellaneous
6. Includes storage and communications
7. Estimated data

<sup>1/2</sup> projections from Caribbean Economic Almanac 1964-1966, Economic and Business Research Information and Advisory Service  
<sup>6</sup> data from confidential source not to be published  
 Part of Spain 1968

Sources: Official govt. publications or from information in BMA files except where otherwise stated.

## II. THE PRESENT STRUCTURE, CHARACTERISTICS AND PROBLEMS OF THE INDUSTRIAL SECTOR IN CARIFTA COUNTRIES

### The importance and structure of the industrial sector

14. Table II shows that the manufacturing sector already makes an important contribution to the economies of Jamaica and Trinidad and Tobago, and a significant contribution in Barbados and Guyana. In the other eight countries the manufacturing sector makes only a small contribution to G.D.P. These eight countries contribute only 4% of the value added by manufacturing in the CARIFTA area as a whole (although their population is roughly 15% of the area's total). Jamaica and Trinidad account for 85% of the total and Barbados and Guyana the remaining 11%.

15. In Jamaica the manufacturing the processing sector accounted for US\$ 132 million or 14.9% of Gross Domestic Product in 1966. Twenty-five per cent of this industrial production was exported, mainly to the United States. Food industries (including sugar, rum and molasses), beverages and tobacco accounted for US\$ 62 million or 48% of the value added in the industrial sector in 1966. The other main contributors were: metal products and repairs, textiles and made-up textile goods, printing, publishing, and paper products, chemicals and chemical products.

16. In Trinidad and Tobago the manufacturing sector accounted for 17% of the Gross Domestic Product in 1967. Between 1963 and 1968 the sector grew at the rate of 7% per annum, faster than any other sector in the economy. But, excluding petrochemicals (mainly fertilizers) and sugar, the growth rate of the manufacturing sector between 1963 and 1968 was only 4% per annum. However, the growth of the garment industry was particularly sharp, averaging 8% per year. There has also more recently been an expansion of food processing capacity. The traditional items of manufacturing on the whole with the exception of margarine and lard substitute, soap and cement did not increase their production significantly between 1962 and 1968. Production of beer and stout has increased somewhat slowly, while production of rum, cigarettes, edible oils and matches stagnated.

17. In Barbados, the industrial sector consists of a variety of light manufacturing consumer goods industries. The majority of these industries are oriented towards the production of food products and beverages, garments and building materials. Recently the structure of the industrial product has been widened by the establishment of industries for paint and paint products, pharmaceutical products, soap and detergents, furniture and fixtures, and a variety of miscellaneous products. A large part of the manufacturing sector still consists of small enterprises in traditional activities - dressmaking, tailoring, repairs to cars, handicrafts, etc. The greater part of industrial production is geared to the domestic market, but there is a narrow range of products specifically designed for export; these include semi-processed food (shrimps), assembly of electrical equipment, ready-to-wear garments, costume jewellery, toys and metal products.

18. In Guyana, apart from the processing of sugar and the milling of paddy into rice, the manufacturing sector is comparatively small both in terms of value - added and in numbers employed. Most enterprises in the sector are geared to the production of consumer goods, though there are also others that are producing some types of building materials, notably lumber and paints. The commodities that account for the bulk of the production of the manufacturing sector are cigarettes, matches, margarine, edible oil, carbonated beverages, beer, stout, rum, soap, detergents, paints, confectioneries, ready-made clothing, animal feed-stuffs, drugs, furniture and tyre remoulding.

19. In Antigua, the manufacturing product in 1967 accounted for an estimated US\$ 1,400,000, representing 5% of the Gross Domestic Product. There is a small oil refinery; the usual light industries such as construction material, cement blocks, aluminium windows, wooden doors, furniture metalwork, tourist novelties and rum distilling are in operation. Besides, a cotton ginnery was expanded recently and a complete plant for seed crushing was installed; these are not operating as there is neither cotton nor seed. The crushing plant is being converted to take copra. Finally, a well installed corn mill is operating on imported materials.

20. In Belize, the manufacturing product in 1967 amounted to US\$ 3.1 million, representing 9.3% of the Gross Domestic Product. The local small industries are fish processing, one garment factory, cigarettes, footwear, rum, industrial gases, storage batteries, aerated water, mattresses, louvred windows, tiles and tyre recapping.

21. Dominica is a relatively large island with obvious touristic and agricultural potential. The manufacturing and mining production in 1967 accounted for US\$ 1 million, representing 8.3% of the Gross Domestic Product. Dominica already has an infant furniture industry with ingenious local craftsmen; they require designs and pattern books as well as full training to develop their skills so as to supply a proportion of the hotel furnishings. There is a convent-sponsored grass matting and tourist novelty handcraft industry; the quality and design are excellent but production has almost ceased owing to lack of grass which grows in the wild state; experiments have been started to grow it commercially. Two existing small garment factories indicate the future potential; and a well equipped factory makes oil and soap from copra. Construction materials based on local pumice are well established. Finally, a modern bakery is equipped with a large Baker Perkins machine for biscuit production. This general baking business is suffering from lack of capital and expertise. It is working at low efficiency.

22. In Grenada the manufacturing sector, in 1967, accounted for US\$ 0.6 million or 3% of the total Gross Domestic Product of the country. Some thirty-four establishments comprised the sector in 1968. The main groups of the industrial sector are handicrafts and service industries for tourism, furniture making and small industries based on local fruits and vegetables.

23. Montserrat has a good tourist and retirement home potential. This island has been chosen by many Americans and Canadians who are potential entrepreneurs. Manufacturing output in 1967 was not more than US\$ 100,000 in the total of US\$ 3.3 million of the Gross Domestic Product. The main industries are laundry and cleaning, car repairing, tyre recapping service jobs plus skilled joinery, construction work and distilling.

24. In St. Kitts-Nevis-Anguilla, the manufacturing production, in 1967, amounted to US\$ 1.4 million, representing 6.3% of the total gross domestic product of these islands. Apart from a solidly established sugar industry which is processing cane sugar with a new method, there is a well equipped laundry and cleaning plant and another small one for tyre recapping.

25. In St. Lucia, apart from a flourishing tourist industry and the successful banana industry, there are a dozen small industries. The value of manufacturing production in 1967, amounted to US\$ 0.6 million of the total of US\$ 16.7 million of the Gross Domestic Product of this island. Two prosperous assembly industries based on import of materials and export of finished goods indicate that the cheap and willing labour can be used for many further assembly industries if only they can be attracted to the island.

26. St. Vincent is in the earliest stage as regards industrialisation. In 1967 its manufacturing product accounted for US\$ 200,000 representing approximately 1% of the Gross Domestic Product of the country.

#### Characteristics of industrial development in the CARIFTA countries

27. Setting aside the oil refineries and the petrochemicals associated with them, most of the manufacturing industries established so far in the CARIFTA area aim at producing consumer goods for which there already existed a demand satisfied by imports. Typically in the region, this has entailed importation of raw materials, capital and technology, so that essentially domestic value added is confined to the employment which is created. This type of industrialisation does not make as significant a contribution to the national economy as industries based on local raw materials and/or locally manufactured component parts. There is little processing of domestic raw materials for export markets; fabricating imported raw materials mainly for export markets has been confined chiefly to the garments industry so far.

28. As a result the industrial sector relies heavily on imported inputs; and there is insufficient backward and forward linkages between this sector and the other sectors of the economy.

29. The smallness of the national markets has affected the size of the enterprises which are usually geared to supply only the domestic market. It has been one of the determining factors in the concentration on light industry, and also partly accounts for the lesser importance of more complex industries. When the operation is to assemble for foreign firms, the size of plant is determined mainly by the volume of export contracts available.

30. The creation of CARIFTA will provide at least limited opportunities to overcome these short-comings in the type of industrial project established so far. Larger size plants will become feasible, and there will be greater scope for developing local supplies of raw materials and other inputs.

#### Some problems faced by industry in the CARIFTA countries

##### Infrastructure

31. Apart from Barbados, Jamaica and Trinidad and Tobago, the economic infrastructure such as electricity, water, roads and tele-phones leaves much to be desired; this constitutes a disincentive to investment. Moreover, the inadequate shipping facilities cause delays in obtaining raw material, equipment and replacement parts, and also in the delivery of products to the market. Transport inadequacies and the attendant costs are exaggerated by the wide geographical dispersion over a thousand miles of sea; this usually means at least one additional stage of handling and shipping for materials and finished products

##### Labour and management

32. Labour in general is readily available and amenable to training. However, shortage of skilled manpower and limited training programmes have resulted in low productivity. A solution to this problem is urgently needed, and the first steps must give priority to the training of instructors and foremen for industry, and to the teaching of technical skills in all fields. Moreover, the fact should be noted that wages in oil and bauxite industries and to a lesser extent in hotels, are much higher than in the other economic sectors. This tempts the labour unions to push for higher wage rates in other industries. But at present, unemployment is high and a large proportion of the labour force exists on a minimal basis with no resources.



33. In the exercise of managerial functions there are many apparent weaknesses. This does not apply to those firms that are subsidiaries of, or operate under franchise from, foreign companies, and are consequently able to draw on their principals for assistance. One UN expert observed that 'The most obvious deficiencies are in costing, inventory control, quality control, lack of technical 'know-how' and bad housekeeping'. Special attention therefore needs to be paid to organising and training executive and administrative personnel.

#### Industrial financing

34. To this must be added limitations of industrial financing, which is still largely based on the reinvestment of profits. The formation of public joint-stock companies and the use of the stock exchange have only just begun. The dominant form of the individual and family ownership of enterprise has affected not only the capacity to borrow from the banking system, but it has also limited the recruitment of qualified persons at various levels.

35. Domestic sources of funds are not fully mobilised for the needs of industrial sector. The commercial banks have been effective institutions for the attraction of funds, but adherence to the banking practices described above (Chapter I, paras 10, 11) has rendered the use of these funds for industrial purposes limited. The commercial banks have made a major contribution to the provision of working capital but their adherence to the commercial loan practice has limited the provision of funds as long-term loans needed for the establishment of industry. The great emphasis placed on security and a preference for well established clients has had the effect of limiting the bank credit available to entrepreneurs. The rate of interest is usually 9% to 10% per annum against a prime interest rate of 7½%.

36. Insurance companies have also attracted large amounts of funds; but the small percentage of their available funds which they invest in CARIFTA countries, has been limited to real estate. Certain investment houses are prepared to make medium-term loans, but their rates are reputed to be around 10% per annum. The Industrial Development Corporations in Barbados, Guyana, Jamaica and Trinidad and Tobago are the only other institutions catering to the need for industrial

financing at present, but their capacity for lending is limited.

37. Another major source of finance for local enterprise is share capital. Most of the small enterprises are owned by individuals and families; a small number of them issue shares to a limited number of outside shareholders but the use of Public Company is extremely limited. The encouragement of the latter type of companies is very important to the promotion of new industry, since not only does it secure the necessary capital for new industries, but it promotes the mobilisation of local savings and local ownership of industrial enterprises.

#### Marketing

38. The marketing of industrial products in the individual domestic markets has not been a major problem. Modern techniques of mass communication - cinema, radio, television and newspapers - have been adequate. Frequent use is made of display counters, exhibitions, etc. The distribution of goods in the domestic markets has also been facilitated by the existence of commission agents with well established facilities. However, the manufacturing plants must contend with a certain vulnerability to goods mass-produced in other countries or even dumped by foreign companies.

39. The ignorance of the possibilities of markets in the other CARIFTA member countries is very striking. The CARIFTA Exposition 69, held in Grenada during the last fortnight of April, was able to introduce some locally-produced goods to the consumers in the different CARIFTA member countries. But expositions alone are not sufficient to enlarge and secure a stable market. They must be backed by continuing information. A central information and trade promotion service would be useful (see Chapter VII).

40. This centre might deal with the establishment and operation of systems and procedures for convenient channelling of trade information among the countries in the area. The objective of this service should be the urgent communication of specific demand and supply availability. It might provide assistance in adapting the presentation of specific products in accordance with the taste and preferences of the market demand in other CARIFTA countries. The establishment of a teletype communication system among all the countries in the area could be considered as an efficient means of quick exchange of supply and demand information.

**III. OPPORTUNITIES FOR ESTABLISHING SPECIFIC INDUSTRIAL PROJECTS**  
**WITHIN A PROGRAMME OF REGIONAL INDUSTRIALISATION**

**Introduction**

41. This section of the report reviews the prospects and opportunities for the development of four branches of industry studied by the Mission. These are:

- The textile industry
- The food-processing industry
- The pulp and paper industry
- The chemical and petrochemical industry .

42. Wherever possible the aim of the Mission has been to identify specific projects which could be implemented within a programme of regional industrialisation. In some cases, e.g. the textile industry, projects are studied sufficiently to allow the Governments of CARIFTA to consider their immediate implementation; in other cases, further elaboration in the form of detailed feasibility study is required.

43. Recommendations for follow-up action to investigate further and/or implement the projects identified are summarised in Chapter VII of the report.

44. The experience of the Mission suggests that the task of identifying, formulating and promoting projects which can be implemented within a programme of regional industrialisation is a difficult and complex one. If the CARIFTA countries are to continue their efforts to identify projects suitable for implementation as regional integration industries, substantial further work covering a much wider range of branches of industry on a continuing basis extending over many years will be required.

45. The Mission therefore recommends that the Governments of CARIFTA countries set up permanent machinery for this purpose in the form of a CARIFTA industrial Development Centre. Its functions are described in more detail in Chapter VII, paras                      If requested, UNIDO would be willing to supply technical assistance to such an institution in the form of consultant services and a group of experts organised as a Special Fund Project.

THE TEXTILE INDUSTRY IN THE CARIFTA REGION

- Prospects and opportunities for future development

THE DEMAND FOR TEXTILES IN THE CARIFTA REGION

46. The textile industry appears to offer considerable scope for replacing imports with local production. Import statistics show that this is one of the largest single categories of imports with a value of roughly Bw\$ 75 million.

47. The demand for textiles products has been estimated by the Mission as follows for the year 1966:

NET IMPORTS, PRODUCTION, AND CONSUMPTION OF TEXTILES

(Ignoring fibres, waste yarn and miscellaneous items)

	<u>Estimated Imports</u>	<u>Estimated Local Production</u>	<u>Estimated Total Consumption</u>
	mn. lbs.	mn. lbs.	mn. lbs.
Woven Cotton Fabrics	14.3	3.4	17.7
" " Fents	0.6	-	0.6
Woven Synthetic Fabrics	7.7	-	7.7
" " Fents	0.7	-	0.7
	<u>23.3</u>	<u>3.4</u>	<u>26.7</u>

The above items represent two-thirds of the total for all textiles and the remaining third consists of glass, silk, wool, linen, hemp, jute, etc. which the Mission has not considered.

48. These figures suggest that only 13% of the total woven textiles consumed by CARIFTA countries are being produced in the area at present, and only 18% of the total consumption of woven cotton textiles. There is no production of cloth using man-made fibres, such as synthetics and blends.

49. The Mission's superficial market study in the shops and garment factories in CARIFTA show that a bewildering diversity of fabrics is being consumed. For this reason it was not possible to make a detailed market survey. Statistics giving widths, qualities, counts, constructions and raw material content, do not exist.

50. The reasons for the wide diversity of fabrics are common to all import-orientated economies:-

(a) Importers and retailers have a vested interest in providing maximum choice which is very important to a fashion-conscious, dress-loving clientele.

(b) Importers make their greatest profit by clever buying; they are inclined to favour small lots, close-outs and remainders, rather than purchases of classic lines where they have no margin for manoeuvre.

(c) Garment makers, who have to be aggressive individualists to survive, resent anything that conflicts with their freedom of action. The present duty-free regime with restrictions only on types of cloths produced locally is nearly "Paradise" for them.

(d) The advent of synthetics and blends has made it easier for importers to mystify and exploit the public; consequently there is a tendency for a big range of inferior products to be imported in a multiplicity of confusing brands.

51. The sophistication and wide diversity of the present market means that considerable care will have to be taken in selecting those fabrics which could be produced locally. The experience of other developing countries suggests that a local textile industry can be developed, if the production is carefully planned and appropriate policies are followed.

52. Markets such as Nigeria, Kenya, Uganda, Tanzania and Ethiopia were all import-orientated markets ten years ago, buying their cloth from such the same sources as the CARIFTA countries. Today they are all becoming self-sufficient in the production of cotton textiles owing to Government policies which encouraged import substitution, with tariff and/or import quota protection. In the last decade, a series of large vertical integrated plants have been established in these countries; they are producing a wide range of cotton cloths which will soon account for the greater part of local consumption. There are also several mills planned to produce synthetics and blends.

53. The West Indian per capita consumption of textiles at 11.7 lbs is

higher than world average of 10.6 lbs, and the individual figure for Trinidad and Tobago is 18.6 lbs which compares with that of Western Europe. This is an indication of future expected demand when incomes rise in the CARIFTA region as a whole.

The market for cotton fabrics

54. The Mission believes that a more detailed study of demand would show that between one third and one half of the CARIFTA market for cotton fabrics could be supplied by a vertically integrated cotton textile mill. It would produce standard cloths to attain maximum production efficiency. As a basis for providing some preliminary cost estimates for such a plant<sup>1/</sup>, production of the following types of cloth has been considered.

Assortment Drills	3,000,000 yards
Twills	2,000,000 "
Shirtings	5,000,000 "
Sheeting	2,500,000 "
Poplins	2,500,000 "
Prints	10,000,000 "
	<u>25,000,000</u>

55. A more detailed study of the market is required before detailed plans for such a new textile plant can be made.

56. At some later date after this proposed mill had become established, an additional plant or expansion could be considered so that local production catered for a larger share of the total market for cotton fabrics.

The market for fabrics using man-made fibres

57. Imports of woven "synthetic fabrics and blends" in 1966 are estimated at over 8 million lbs. valued at BWS 25 million. Consumption of this type of fabric appears to have been growing more rapidly than cotton fabrics.

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<sup>1/</sup> See separate report: Preliminary studies of specific projects in the Textile Industry.

58. A detailed market study would be required before the feasibility of constructing a plant to manufacture this type of fabric could be established.

59. As a basis for providing some preliminary cost estimates of this type of plant,<sup>✓</sup> the Mission has considered a plant to manufacture the following types of fabric using 67% polyester and 33% cotton.

Trousering Twill 28"	1,000,000 yards
Trousering Twill 42"	2,000,000 "
Shirting 36"	2,500,000 "
Poplin 36"	5,000,000 "
Poplin and Prints 45"	4,500,000 "
	<u>15,000,000</u>

#### The market for cotton yarn

60. The proposed integrated textile mill to produce 25 million yards per annum of cotton fabrics and the existing textile mills producing 10 million yards per annum would each produce their own cotton yarn.

61. However, there may exist in the years ahead a demand for cotton yarn for knitting and other small specialised operations such as the production of fancy cloths, terry towelling and speciality wearing.

62. To meet this demand a moderate-size cotton yarn-spinning mill might be established. Detailed cost estimates have therefore been prepared for such a mill with a capacity of about 3 million lbs of yarn per annum.

#### THE EXISTING MAJOR MANUFACTURING UNITS IN THE TEXTILE INDUSTRY IN CAROLINA REGION

63. There are two vertical integrated cotton textile mills already, giving direct employment to more than 1,000 workers. One currently produces about 6 million yards annually in Jamaica; the other produces 4 million yards annually in Trinidad. In these mills there is additional

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<sup>✓</sup> See separate report: Preliminary studies of specific projects in the Textile Industry.

capacity (based on imported printcloth) for at least 4 million yards in Jamaica, and 5.5 million yards in Trinidad.

64. Both mills are energetically managed within the limitations of 1945/1950 technology. Both are well installed and well housed on important areas of their own property. Both have suffered in the past from the smallness of the local market, from their small size, and from vulnerability to dumping. Only recently has each mill received adequate protection in their respective countries in their particular lower end of the cotton textile trade. Both will continue to require protection in the context of CARIFTA.

65. There is a second spinning and weaving mill in Jamaica with a much smaller capacity. This has encountered difficulties for a number of reasons.

#### POLICIES REQUIRED TO FACILITATE FURTHER DEVELOPMENT OF THE LOCAL TEXTILE INDUSTRY

66. An unprotected market with such diverse tastes in fabrics as the CARIFTA market is vulnerable to dumping practices. The experience of the existing textile producers in Trinidad and Jamaica has shown that protection from foreign competition is needed if locally-produced cotton fabrics are to be purchased in preference to imported fabrics.

67. If further development of the textile industry is to benefit from the wider market opportunities created by CARIFTA, new policies will be required.

68. A common policy must be established on protection from foreign competition on at least those types of cotton, synthetic and blend fabrics which are already or are planned to be produced within the CARIFTA market. Further detailed study would be required to establish (a) the most appropriate form for this protection, i.e. tariff protection and/or physical import controls, (b) if reliance is placed on tariff protection, the level at which the common external tariff should be established, and (c) whether it would be effective to protect some types of textile fabrics and not others.

69. The value added by the proposed mills is expected to exceed 50%. There is therefore unlikely to be a need to request special treatment



to permit the fabrics produced to benefit from free trade within the CARIFTA market.

70. However, it is not clear that all the inputs, which the proposed mills will require, would benefit from free trade within the area. The Basic Materials List should therefore be extended when it can be shown that important inputs other than cotton and cotton yarn can be produced within the area.

POSSIBLE TEXTILE PROJECTS WHICH COULD BE ESTABLISHED AS REGIONAL INTEGRATION INDUSTRIES

71. The Mission concentrated on identifying possible textile projects designed to serve all or a major part of the regional CARIFTA market. Therefore it did not consider the possible further development of the garment industry, knitting and other forms of specialised textile industries.

72. Three possible projects are recommended for consideration by the Governments of CARIFTA member countries.

1. An integrated cotton textile mill.
2. An integrated textile mill using man-made fibres.
3. A moderate sized mill to produce cotton yarn.

An integrated cotton textile mill

73. The Mission recommends consideration be given to the establishment of an integrated cotton textile mill capable of producing 25 million yards per annum. Detailed estimates of the capital, operating costs, and employment are given in a separate report - "Preliminary studies of specific projects in the cotton textile industry".

74. The size of the mill (i.e. 25 million yards per annum) has been designed to achieve maximum efficiency and lowest possible costs of production. The equipment recommended is sufficiently versatile to allow for changes in the relative proportions of articles manufactured to accommodate changes which inevitably occur in market demand. Using the equipment proposed the mill would provide employment for over 1,000 people. A further reduction in personnel could be obtained by installing automatic winding, but this has not been recommended in view of social implications, and to reduce capital cost.

75. The mill is designed to supply one third of the present market for cotton textiles in CARIFTA. Long runs of standard cloths have been chosen so as to attain maximum production efficiency. The size chosen - 28,000 spindles of spinning, 700 looms and complete finishing, is an ideal scale to achieve maximum economies from the scale of production according to world standards recognised by UNIDO.<sup>1/</sup>

76. The cost of machinery and buildings with a small margin for contingencies is estimated at BWS 20 million installed and ready to function. It would take 18 months after placing firm orders to construct the mill and have it ready to commence operating. A further 18 months would be required to reach full production on three shifts.

An integrated textile mill using man-made fibres

77. Consideration might also be given to the establishment of an integrated textile mill using man-made fibres. A mill which could produce 15 million yards per annum based on 67% polyester yarn and 33% cotton has been examined by the Mission, and detailed estimates of the capital, operating cost and employment are given in a separate report - "A study on establishing a regional integrated synthetic blend textile industry".

78. The size chosen - 29,600 spindles of spinning, 478 looms, and complete finishing is a reasonable size to achieve maximum economies from the scale of production. The mill would provide employment for 775 workers and 45 staff. The estimated cost is BWS 16.5 million.

79. When operating at full capacity on the fibre mix proposed above, the mill would consume 3.4 million lbs of polyester staple fibre. The minimum economic size of a polyester spinning plant based on import chips is roughly 4.75 million lbs per annum (based on 6 tons/day for 360 days annually). Recommendations for studying the feasibility of spinning polyester fibre are therefore made on page .

A moderate-sized mill to produce cotton yarn

80. There is no cotton yarn mill in CARIFTA at present which can sell yarn to outside customers. The Mission therefore recommends consider-

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<sup>1/</sup> "Technological and Economic Aspects of Establishing Textile Industries in Developing Countries". UNIDO, Vienna 1967.

ation be given to establishing a small cotton yarn mill designed to supply part of the local demand for knitting yarns and to form a convenient local source of supply of bleached and dyed yarns for speciality weaving, terry towelling, rice bagging, etc. The importance of the mill is that it would facilitate the establishment of more small textile industries in the less-developed territories.

81. Some further details are provided in a separate report - "Preliminary studies of specific projects in the textile industry".

82. The brief study shows that a modern mill equipped with new conventional spinning, winding and dyeing machinery to produce about 3.2 million lbs. of good quality carded yarn annually would employ up to 150 persons. The size chosen is the minimum advisable for economic functioning. The cost of machinery and buildings is estimated at BW\$ 4 million. The overall cost per lb. is estimated at BW\$ 1.195 per lb. for an assortment of grey, white and colours, for the average count of 21.0's. It is believed that the mill's cost price is approximately equal to CIF import price from cheapest international sources.

#### IMPLICATIONS FOR COTTON GROWING IN THE CARIFTA REGION

83. The two existing large textile companies use about 3 million lbs. per annum 1<sup>1</sup>/<sub>16</sub>" Strict Low Middling American type cotton which is currently imported from U.S.A., Mexico, Colombia or from other world suppliers according to price, quality and availability, including transport.

84. The only locally-grown cotton suitable for their use is a degenerate Sea Island Cotton from Carriacou. The firm "Texstyle" in Trinidad purchases most of the crop. The possibility of revitalising the Sea Island Cotton growing industry has been investigated by a firm of British consultants, but it cannot be expected to supply more than a small share of local demand.

85. The three projects which have been identified as regional integration textile projects would consume about 13.7 million lbs. of cotton lint as follows:

	<u>1<sup>1</sup>/<sub>16</sub>" Staple</u>	<u>1<sup>3</sup>/<sub>8</sub>"</u>
	mn. lbs.	mn. lbs.
Regional Cotton Textile Mill	8.4	
Regional synthetic and blend mill		1.9
Regional Sales Yarn Mill	<u>3.4</u>	<u>      </u>
Total Ordinary Cotton	11.8	
Total Long Staple Cotton		1.9

86. In view of the large quantities involved, the possibility of growing both ordinary and long staple cotton in CARIFTA on a large commercial scale are worth investigating. If these three new textile projects are established, the CARIFTA countries would be able to derive substantial further benefits in terms of development, employment opportunities, and foreign exchange savings by producing all or a major part of the cotton required. It is therefore advisable to investigate at an early date whether American upland type annual cotton can be grown in CARIFTA by modern methods with high yields per acre in Belize, Guyana and wherever sufficient marginal flat stoneless land can be spared in the islands and whether the operation would be commercially viable if the cotton were sold to CARIFTA customers at prevailing international prices.

THE FOOD-PROCESSING INDUSTRY IN CARIFTA

- The prospects and opportunities for  
future development

THE EXISTING FOOD SUPPLY SITUATION

87. Apart from organised agricultural production for export markets - mainly sugar, bananas, and citrus - there is surprisingly little commercial agriculture in the CARIFTA region geared to supplying domestic food needs, either in the fresh or processed form.
88. To provide a basis for examining opportunities for future development of the food-processing industry in CARIFTA countries, crude estimates were made of the present annual consumption of food in each CARIFTA country and the source of supply (locally-grown or imported). The estimates are in terms of value rather than volume. The results are shown in Tables I and II. Table I estimates the total food consumed in each country and the proportion imported. Table II provides details of the type of food imported, using the SITC trade classification.
89. These estimates suggest that Jamaica currently produces between two-thirds and three quarters of its domestic food supply. External trade figures appear to indicate that food imports are rising rather rapidly. Little information was available about trends in local domestic food production, but such information as was obtained tends to show that this production may have been stationary or even have declined in recent years.

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✓ A rough estimate of the value of food produced locally for domestic consumption in each CARIFTA country was made in co-operation with local agricultural and statistical officials. Whenever possible these were checked with the local agricultural marketing organisations. Such estimates are necessarily very crude for it is almost impossible to estimate the value of food retailed on the small cultivators plots. Also, because of the system of marketing local food, estimates of the surpluses which come to market may be very wide of the mark.

Import figures are taken from the latest external trade statistics; where 1967 or 1964 figures have been used, 5% and 10% respectively has been added to bring the value to current prices. In order to convert CIF values to wholesale prices, an average of 25% was added to the totals of each country. This was based on information obtained from authoritative sources, and which shows that from CIF to LDP, costs of imported food must be increased by 12 - 15%; whereas from LDP to wholesale prices a further addition of 9 - 12% must be made.

92. For the Eastern Caribbean countries taken as a whole, the tables suggest that 56% of the food supply is imported and only 44% produced locally. This is surprising as the economy of some islands is mainly agricultural. Figures are not accurate enough to allow any reliable conclusions to be drawn as between one country and another, but the figures suggest that agriculture is the most productive in Barbados and the least productive in Trinidad, Antigua and St. Kitts.

93. The figures in Table 1 show that total imports of goods into the CARIFTA region have been at the level ECU 300 - 400 million, i.e. roughly 30% - 40% of total imports. The most important categories are:

Cereals	ECU 98 million
Dairy products	ECU 58 million
Meat	ECU 40 million
Fruit and vegetables	ECU 32 million
Fish	ECU 26 million
Animal foods	ECU 18 million
fats and oil seeds	ECU 13 million
Sugar and sugar confectionary	ECU 6 million

Whilst these figures (which include a small element of intra-regional trade) give some idea of the magnitude of the scope for import-substitution, they are not necessarily an indication of what the demand would be if fresh and processed foods of a high standard and quality were readily available at reasonable prices. However, there

is enough evidence to suggest that there is tremendous scope for increasing local production of both fresh and processed food in the Region.

92. Domestic consumers would then be able to afford and enjoy an adequate and varied supply of fresh food, as well as a variety of local foods processed within the region to the same standards of quality as those of the imported foods to which they are now accustomed.

#### EXISTING MANUFACTURING UNITS IN THE FOOD-PROCESSING INDUSTRY

93. There are at least one hundred manufacturing enterprises established in the food-processing industry in the CARIFTA region. They manufacture quite a wide range of processed foods. Most of the existing plants are located in Jamaica and Trinidad and Tobago. Typically these manufacturing units are of a small-scale and protected by import tariffs or controls. They have been designed to satisfy national demand and not the demand of the CARIFTA market as a whole.

94. The Mission visited some of the existing enterprises in this industry in all the CARIFTA member countries. If they all had one problem in common it was that they could not procure sufficient and assured supplies of raw materials of satisfactory quality and at prices which will make these industries viable. Even in Jamaica, where the food-processing industry produces the most diverse range of products and is technologically far in advance of the other CARIFTA countries, the problem was exactly the same.

95. This situation constitutes a serious handicap to the further development of the food-processing industry in the CARIFTA region. Most of the existing enterprises rely on numerous small cultivators and middlemen to produce the food they require for processing. Governments have introduced a variety of measures to promote a larger, more reliable and higher quality of food supplies, but in most cases these have had only marginal results.

96. The Mission believes that only the introduction of the growing of some food for processing on a large commercial scale, together with far-reaching reforms in the organisation of smallholder or peasant

cultivation and food marketing can provide the scope or inducement for new food-processing industries.

97. In some CARIFTA countries a start has been made on large-scale commercial food production for private profit. In Trinidad a pilot settlement scheme, the Crown Lands Development Project, has been started with support from the World Bank. Here, dairy and pig farmers have been settled and assisted, but it is significant that in either case private enterprise factories provide outlets for all the production. Another scheme which looks successful is one sponsored by a tobacco company; the Tobacco Company is not only taking all the output but is also providing the necessary field service for the growers.

98. The Mission found that in most of the countries visited the approach to the establishment of food processing industries is rather unorthodox. The government decides "in principle" to build a citrus packing plant, or a milk condensery, etc. When questioned about the availability of suitable raw material supplies, the answer is either that "surplus" already exists or that "we can grow it". When questioned about the market for the products, the reply is invariably "we can export". Food-processing plants conceived in this way are not only likely to waste capital which could be better employed in other ways, but their operation may also have to be heavily subsidised. Where the products are traded within the region such subsidies would be against the spirit of the CARIFTA agreement.

99. If projects in the food-processing industry are to be developed on a sound basis in future, more detailed and realistic planning will be required and this will have to take account of the existence of the wider market created by CARIFTA. The Mission believes this new approach will affect the planning of specific projects already under consideration at the national level in the field of milk, meat and fish processing.

### III. POSSIBLE FOOD-PROCESSING PROJECTS WHICH COULD BE ESTABLISHED AS REGIONAL INTEGRATION INDUSTRIES

100. The Mission concentrated its study on those branches of the food industry for which planned further development on a regional basis



seemed desirable from the points of view of improving the domestic food supply and assisting import substitution.

101. The import figures quoted in paragraph 5 suggests that opportunities for establishing new projects exist in the following branches of the food processing industry. Flour and rice milling, dairy products, meat processing, fruit and vegetables, fish-processing, animal feeds, oils and fats, sugar refining. In most cases, further study is needed to establish in detail the feasibility of specific projects. The Mission's recommendations (page ) therefore include suggestions for further UNIDO assistance in elaborating such projects.

102. The order of priority and range of projects to be developed will depend on these studies, some major industrial policy decisions and the scope for and cost of growing the good raw materials locally. In particular, the CARIFTA countries will have to decide what level of tariff protection each branch of the food-processing industry is to receive.

#### Dairy products

103. Imports of dairy products cost about BWS 60 million. One reason for the high cost of imports is the failure to develop supplies of fresh milk and as a result heavy reliance on imported raw materials. The milk processing factory established in Jamaica 30 years ago still relies on imports for two-thirds of its raw material; new plant established recently in Barbados and Trinidad also rely partly on imported raw materials.

104. To support the tourist industry and provide a better food diet for the Caribbean people, supplies of fresh milk should be available in all the CARIFTA countries rather than only in Jamaica, as is the case at present.

105. There are two possible approaches to the further development of milk-processing. One method would be to establish a very large dairy herd (several thousand cattle) integrated to an up to date dairy plant which can produce enough milk to supply all or most of the CARIFTA market; this would allow production of butter, cheese, fermented products, etc. to be carried out in a large-scale, modern and com-

mercially viable plant. With such a plant it is easier to tailor production to the pattern of local demand and to reduce reliance on imported milk powder to a minimum.

106. The other possibility is to spread this industry over several locations. The production of milk could be promoted on a national basis to satisfy the large potential demand for fresh pasteurized milk, if a large-scale operation proves to be technically unsuitable or rejected for other reasons. Small-scale dairying would fit in well with existing social patterns and the local production of pasteurised milk would benefit from the natural protection of high transport costs in the area.

#### Meat processing

107. Imports of meat and meat products have reached US\$ 40 million. Opportunities for an integrated meat-processing industry exist for both beef and pork products. However, there appears to be a danger in the case of pork products that this opportunity will be lost if every government decides to build its own pork packing plant, as the Mission was told in many of the countries it visited.

108. The pork butchering industry includes production of hams, shoulders, bacon and loin chops (hot dogs, boiled (canned) ham, bologna, salamis, smoked products and pickled pork). If the smaller countries attempt to produce the whole range of these products on a small scale, they will find it uneconomic. A large new factory has just started operation in Trinidad; there is also an old plant in Jamaica. It might be worth investigating whether these plants could supply enough trimmings to the other CARIFTA countries to manufacture, in a properly designed industrial operation, such pork-products as hot dogs. A small plant of this type is now being set up in Bridgetown, Barbados.

109. As for the dairy industry, it would be advisable to make a thorough survey as a basis for planning the further development of the meat-processing industry and deciding to what extent production should be centralised in large-scale and efficient units. Such a survey might take account of the special interest of the less-developed territories; it would cover beef, poultry and other meat products, as well as pork products.

Animal Feedstuffs

110. Any feasibility study of meat processing would be incomplete without a survey of the position in regard to animal feeds. These are basic to any expansion of animal husbandry. Already the imports of animal feeds have reached W/\$ 18 mi. and prices are maintained at artificially high levels by the mercantile structure of the firms which import them.

111. One enterprise, which would produce enough animal feedstuffs to satisfy the needs of the area, would be a useful addition to the economy of the CARIFTA countries. This plant should purchase the whole raw material centrally (maize, fish meal, vitamins, enzymes, soya flour, oil cakes, etc.) to have the possibility of obtaining offers at relevant world prices. At the same time, it should be technologically so far advanced that all pre-mixes and all concentrates could be made in the plant itself and not purchased, as is now the case, from other companies of the United States, England or Canada. A detailed study of such a project is recommended.

Vegetable oils and fats

112. Imports of vegetable oils, oil seeds, and fats already exceed B/\$ 13 million. There is some local production in Jamaica and Trinidad, the natural character of the existing industry is reflected in the oils and fats agreement. The further development of the industry could provide adequate quantities of vegetable protein for the production of animal feedstuffs, as well as supplying an expanding consumer demand.

113. The production of some vegetable oils and fats should be integrated with the supply of raw materials - i.e., the vegetable oil industry should collect the raw material grown by the small farmers or grow it independently in big industrial plantations. The expanding needs of the CARIFTA countries for vegetable fats (coconut oil, cocoa butter, hardened vegetable fats by hydrogenation, and a great number of refined vegetable salad oils) can best be met if the industry will exclusively take over the task of cultivating or buying direct its raw material requirements.

114. The Mission believes that a viable project could be drawn up which takes into account the need to streamline and reconstruct the present industry, the production of raw materials, and the marketing of both the fats and the oil cakes. Here again further detailed study is recommended.

#### Milling of flour and other cereals

115. Imports of flour and cereals have reached a level of about BWS 100 million. There is a flour mill in Trinidad and a rice mill in Jamaica.

116. The framework of the CARIFTA agreement provides an opportunity for developing an integrated programme for the import of grains for common storage and the establishment of additional more modern mills to produce flour and special cereals. There are considerable advantages in terms of yield and efficiency in establishing large size production units in this branch of the food-processing industry. The price of this staple food appears to be higher than necessary in the CARIFTA countries at the present time.

#### Fruit and Vegetables

117. At present, industrial processing of fruits and vegetables is mainly of citrus fruit for export. The Mission considers that there is a large potential market for processed fruit and vegetables in the CARIFTA region, as well as for overseas export. To realize these possibilities it would be advisable to co-ordinate the production of fruits and vegetables by agreement among the member countries. Further studies are required to identify specific projects in the field of canning, frozen foods and other forms of ready-prepared foods.

#### Fish Processing

118. The imports of fish and fish products into the CARIFTA region has already reached WJ\$ 30 mi. This includes dry salt-fish. Jamaica accounts for over half the import bill.

Taking the Eastern Caribbean countries of CARIFTA as a unit, the operations of local fishermen are limited to inshore fishing, for which the maximum annual potential of the fishing grounds is estimated by the FAO Fisheries Development Project at 7,000 tons.

This is only one-fifth of the potential needs of the population of the Eastern Caribbean region.

The establishment of a properly organised and adequately capitalised offshore fishing fleet is long overdue. Such an industry would necessarily be regional, and could thus be established under conditions which will ensure to all member countries an adequate supply and distribution of fresh fish.

Apart from fishing boats, the industry would provide for its own use landing, docking and repair bases; cold storage facilities; and possibly a fleet of refrigerated trucks for distribution. If national marketing organisations were to be suitably reorganised, they might in some cases be capable of taking over the distribution.

119. The Mission discussed this potential project with officials of the FAO Fisheries Development Project. On the basis of existing information, the Mission believes that an established and experienced fisheries group might be interested in developing such a venture, provided its representatives could discuss and negotiate with one single development agency for the whole region. As a first step more information should be collected, so that a feasibility study to attract potential investors can be prepared.

TABLE III  
(page 34)

ESTIMATED C.I.F. AND VOLUMES VALUE OF FOOD IMPORTS - CARIBBEAN COUNTRIES \$100,000

S.I.T.C. CLASS	TRINIDAD & TOBAGO (1967)	BARBADOS (1964)	JAMAICA (1967)	ARUBA (1967)	ST. KITTS/NEVIS (1964)	DOMINICAN REPUBLIC (1964)	ST. LUCIA (1964)	DOMINICA (1964)	ST. VINCENT (1964)	GUAYANA (1967)	TOTALS
00 LIVE ANIMALS	487	31	288	13	7	1	27	8	12	-	1,166
01 MEAT	11,676	3,082	24,379	1,473	638	111	64	532	285	2,389	40,840
02 BONE PRODUCTS	27,476	3,403	29,389	888	648	341	628	478	476	11,946	70,182
03 FISH	4,857	1,572	27,888	393	487	289	388	445	285	2,266	28,014
04 CEREALS	28,646	6,273	46,628	1,286	1,421	273	1,388	968	1,211	7,321	94,688
05 FRUIT & VEGETABLES	9,370	3,473	7,288	1,173	288	75	388	222	189	8,889	21,288
06 OTHER FODDER	888	281	1,388	488	288	138	281	648	688	14	5,782
07 OTHER FODDER	2,488	1,488	2,388	288	28	28	188	68	289	688	7,282
08 ANIMAL FEEDS	6,788	3,288	6,288	288	281	28	238	188	249	14	17,078
09 OTHER FOOD PREPARATIONS	3,488	1,488	1,388	388	488	38	488	288	242	14	8,282
20 OIL SEEDS, FEEDS	1,488	1,488	8	-	1	-	1	1	-	14	2,962
21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100	3,488	288	4,288	388	288	28	28	288	242	888	20,383
TOTALS	28,188	28,288	28,288	28,288	28,288	28,288	28,288	28,288	28,288	28,288	28,288

BASED ON C.I.F. VALUES (FOR NATIONAL TRADE STATISTICS)  
 \* 1967 ESTIMATE  
 \* 1964 ESTIMATE  
 \*\* BASED ON C.I.F. TO 1964

TABLE IV  
(page 35)

CONSTANTS OF GREAT ARABIAN FOOD CONSUMPTION - GREAT ARABIAN PRICE LEVEL

COUNTRY	POPULATION (1,000)	TOTAL VALUE OF FOOD CONSUMED BY INDIVIDUALS PER YEAR (MILLION)		GROSS VALUE (MILLION)	GROSS VALUE OF LOCAL FOOD CONSUMED (MILLION)		GROSS VALUE OF IMPORTED FOOD CONSUMED (MILLION)		ANNUAL VALUE OF FOOD CONSUMED (MILLION)		TOTAL ANNUAL VALUE OF FOOD CONSUMED (MILLION)	
		LOCAL	IMPORTED		LOCAL	IMPORTED	LOCAL	IMPORTED	LOCAL	IMPORTED		
ALGERIA	200 (1955)	65	100	2.50	30.6	3.0	65.6	100.1	10.0	100.7	15.0	103.7
EGYPT	200 (1955)	200	100	1.00	20.7	2.6	30.3	30.9	3.4	66.6	6.0	72.6
IRAN (1950-55)	200 (1955)	200 (1955)	77 (1955)	2.00	40.0	3.0	40.0	100.0	10.0	300.0	15.0	367.0
LIBYA	20 (1955)	20	20	0.20	3.0	-	3.0	7.2	2.0	20.7	2.0	12.7
NET. EXPORT/IMPORT/AMERICA	20 (1955)	20	20	0.20	3.0	0.1	3.1	6.1	0.3	9.1	0.4	9.5
NET. EXPORT/IMPORT/AMERICA	20 (1955)	20	77	0.20	1.0	0.1	1.1	1.1	0.2	2.5	0.3	2.8
NET. EXPORT/IMPORT/AMERICA	20 (1955)	20	20	0.20	3.0	0.2	3.2	3.0	1.0	10.0	1.6	16.0
NET. EXPORT/IMPORT/AMERICA	20 (1955)	20	20	0.20	7.0	0.1	7.1	3.0	0.9	10.0	1.0	13.0
NET. EXPORT/IMPORT/AMERICA	20 (1955)	20	20	0.20	7.5	0.1	7.6	3.2	0.2	10.7	0.3	13.0
NET. EXPORT/IMPORT/AMERICA	20 (1955)	20	20	0.20	7.0	0.1	7.1	3.3	0.1	10.3	0.2	12.5
NET. EXPORT/IMPORT/AMERICA	200 (1955)	200	60	0.20	30.0	0.1	30.1	40.0	0.2	100.0	0.3	100.3
TOTALS	1,706	137	66	6.16	300.5	13.4	300.9	377.3	20.7	960.0	60.1	1,000.9
NET-EXPORTS including Imports	2,400	70 (1955)	20 (1955)	0.20	100.5	0.0	100.5	200.9	0.0	400.0	0.0	400.0

## THE PULP AND PAPER INDUSTRY IN THE CARIFTA REGION

### Prospects and Possibilities for future development

#### Present situation

120. The only manufacturing units in this industry are paper and cardboard converting factories making paper bags, boxes and other products. The existing corrugated box factories operate at low level of utilization of installed capacity.

#### Present policies

121. At present, the import duty concessions offered to Pioneer and export-oriented industries discourage use of local packaging materials in many of the CARIFTA countries. Other paper products are imported at international prices. Import duties are listed in the detailed report on this industry.

#### Demand

122. The main products imported are newsprint, kraft wrapping paper, writing papers, kraft and liner board and corrugated board.

#### Technology

123. In this industry economies of large-scale production are very significant. Under conditions ruling in Latin America costs may halve as production increases from 50 tons/day to 300 tons/day. The manufacture of most products is best carried out in integrated plants which manufacture pulp.

#### Possible projects

124. The most promising project in the foreseeable future appears to be one to manufacture corrugated cardboard. This could use local waste paper as well as imported pulp. Demand for packaging of bananas is expected to increase to 13,000 tons by 1975; packaging needs for other products require detailed study.

#### Further investigations suggested

125. In both Belize and Guyana, the FAO is investigating the suitability of local timber resources of pulp and paper production; an economic-size plant would have to be export-oriented and detailed market and technical studies would be required. The use of bagasse as a raw material to make certain grades of paper has been investigated by UNIDO in the Caribbean and other parts of the world. The next step in CARIFTA would be to investigate the local demand up to 1975 for writing paper,



THE CHEMICAL INDUSTRY IN THE CARIFTA REGION

Prospects and opportunities for future development

THE DEMAND FOR CHEMICALS IN THE CARIFTA REGION

126. The chemical industry is defined to include basic chemicals, petrochemicals, fertilisers, as well as fine chemicals, pharmaceuticals, soap, cosmetics and toiletries. Imports statistics available at present do not classify chemical imports in sufficient detail to make a detailed study of demand within the CARIFTA region. There is also little information available on local production of these products.

127. A rough estimate suggests that consumption of these products is roughly US\$ 25 per capita in Trinidad and Tobago, a level comparable with the average observed in Latin America in 1967. In Guyana it is about US\$ 20 per capita, in Barbados US\$ 18 per capita and in Jamaica around US\$ 17 per capita.

EXISTING MANUFACTURING UNITS IN THE CHEMICAL INDUSTRY IN THE CARIFTA REGION

128. At present the demand for basic chemicals is at a low level because the CARIFTA market is small and because industrial development has so far been limited chiefly to consumer goods of which only detergents, paints, cosmetics, pharmaceuticals and cleaning products require basic chemicals in any volume. The most important manufacturing establishments, therefore, produce petrochemicals and fertilisers chiefly for the export market.

129. Jamaica has made a start on the production of some basic chemicals. There is a substantial demand for caustic soda for use in the alumina smelting process, and the feasibility of establishing a large plant is examined in the detailed report on this industry. Some alumina sulphate is produced, and production is likely to increase when construction of a new sulphuric acid plant is completed. Otherwise production consists chiefly soap, detergents, paints and pharmaceuticals.

**130.** Trinidad exports petrochemicals and fertilizers worth US\$ 40 mil. in 1966. The existing petrochemical complex can produce aromatic hydrocarbons (benzene, toluene, xylenes), propylene derivatives (nonenes, dodecanes, di-isobutylens), naphthenes (cyclohexane), naphthenic acids, normal paraffins ( $C_{10}$ - $C_{17}$ ), ammonia, urea, ammonium sulphate and sulphur.

**131.** Production for the local market in Trinidad consists of detergents, soaps, paints, compounding pesticides; most of the pharmaceutical and cosmetic products consumed locally are imported at present.

**132.** In Guyana paints, soap and detergents are manufactured on a small scale, supplying about half the local demand. Pharmaceutical products are imported. In Barbados local chemical plants include soap production and a small glycerine recovery operation; a limited range of pharmaceutical products are processed and packed locally.

POLICIES REQUIRED TO FACILITATE FURTHER DEVELOPMENT OF THE  
CHEMICAL INDUSTRY IN CARIFTA REGION

**133.** The plants established so far have been geared to the local market. Despite its small size, there exist not only several firms within the CARIFTA area manufacturing the same or similar products, but in some cases several small-size plants exist in one particular country. Although this results in competition between firms, it has the disadvantage that the scale of production of each firm is very small and usually well below the minimum level desirable for an economic-sized operation.

**134.** If duplication of production facilities within the CARIFTA area and the high level of tariff protection which this requires are to be avoided in future, there will have to be some deliberate agreement at the regional level for the programming of the manufacture of chemical products. It will be easier to reach such an agreement at this stage rather than at a later stage, when pressures from the much larger number of manufacturers then involved would make it politically and institutionally more difficult.

POSSIBLE CHEMICAL PROJECTS WHICH COULD BE ESTABLISHED AS  
REGIONAL INTEGRATION INDUSTRIES

135. The demand for caustic soda for the alumina smelting facilities in Guyana as well as Jamaica and the small demand in other member countries suggests that this industry could be established as a Regional Integration industry. To provide the essential raw material for this industry - salt and other minor products, the production of solar salt from sea-water should be considered.

136. The production of sulphuric acid could also be considered a Regional Integration industry.

137. Chlorine is produced as a by-product of caustic soda production. It may be worth investigating the possibility of using it to produce vinyl chloride monomer. The other main chemical ingredient would be ethylene, and this might eventually be supplied by a local plant which cracks naphtha to produce ethylene, propylene and butadiene. However, this industry would be an export-oriented industry as local demand would be small even if the monomer were converted into PVC for the plastic industry.

138. There would appear to be scope for further processing of some of the intermediate petrochemical products produced in Trinidad and Tobago at present. Petrochemicals of much higher value might be manufactured if suitable export markets can be found.

139. It would be worth re-investigating the market for furfural produced from bagasse.<sup>1</sup> The feasibility of production was examined by a UNIDO expert in 1967 and since then prices have risen considerably in world markets.

140. The import figures suggests that it would be worth making a detailed study of the demand and present sources of supply for the following product categories.

1. Pharmaceutical preparations
2. Soap, cosmetics and toiletries.
3. Pesticides.

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1 UNIDO has been requested by the Government of Trinidad and Tobago to make such a study.

Such an assessment would consider (a) whether there were opportunities for establishing new local manufacturing facilities, and (b) if this was not possible, whether there were economies to be realised by importing certain widely used items in bulk for repacking and subsequent re-distribution within the CARINTA area.

#### IV. THE SCOPE FOR INDUSTRIAL DEVELOPMENT IN THE LESS-DEVELOPED TERRITORIES

141. The heads of Governments in the CARIFTA countries have agreed to give special attention to the prospects for further industrialisation in those territories defined as 'less developed'. This chapter considers the scope for promoting the establishment of new national-scale industrial projects in these countries. The scope for large-scale new industrial projects in certain branches of industry were considered in Chapter III of that report. The policy measures required to promote the establishment of some of these large-scale industrial projects in the less developed territories are considered in Chapter V.

##### Infrastructure - the first priority

142. Although these territories have already established some small industries mainly of the assembly type, the mission has found that in most cases the basic infrastructure - electricity supply, water, roads, port facilities, etc. - necessary for the creation of a significant industrial sector does not exist. These deficiencies are a serious disincentive to the establishment of new industries. More generous fiscal incentives cannot compensate for these disadvantages. Until an adequate infrastructure is developed, industrial projects in these territories will of necessity be confined to the simpler types of industrial activity.

##### The Scope for Establishing Nation-Scale Industries

143. What types of Nation scale industry can these territories expect to develop? More adequate import trade statistics for these territories are needed to identify their own market requirements for specific commodities. However, the Mission can indicate a general strategy for developing the industrial sector in the smaller territories. This would include:

- A. Creation of industries to satisfy the demand generated by other sectors of the economy, (i.e. tourism, construction, agriculture);

- B. Creating new industries based on local resources;
  - C. Creation of new industries to satisfy the local demand for consumer goods.
  - D. Creation of ancillary small scale industries to supply parts or components to industries established in the larger territories.
- A. Industries to satisfy the demand generated by other sectors of the economy.

#### Tourism

144. Approximately 10,000 additional hotel rooms for tourist accommodation are expected to be constructed in the near future. Most of the furnishings could be produced locally. Demand for standardised type furniture for homes and offices is also increasing. The main requirement at this time is for expert design, marketing guidance and a training programme instituted to develop the skills of local craftsmen. With this help a local furniture industry could be developed.

145. The handicraft industry could be developed parallel to the expansion of tourism. This is a labour intensive industry requiring a minimum of equipment, and hence ideally suited to the less developed and smaller islands. However, it too needs guidance and encouragement. It suffers from lack of adequate financing support at present and a special institution to assist the small entrepreneurs and artisans needs to be established. More training and formation of local designers is also needed to widen the range of products.

146. Certain other small plants could be encouraged as a result of the expansion of the hotel industry such as manufactures of household furnishings (mattresses, etc.) Also a number of profitable service activities could be initiated to cater to the tourist needs such as yacht repairing.

#### Construction

147. The construction industry is a flourishing one in all CARIFTA countries. Some small scale industries can be established to provide certain materials such as door frames, windows and other prefabricated items, to standard dimensions. In fact if this next

step is not taken soon in some of these islands, the housing construction programme will not proceed as rapidly as is hoped.

#### Agriculture

148. There may be scope for manufacturing a range of simple agricultural implements. The main tool of cultivation is still the machete. There is also scope for developing the services required by the agricultural sector. These services could be linked with automotive repairs and hardware supplies.

#### B. Industries based on local resources

149. In Dominica, there is remarkable opportunity for the initiation of an integrated lumber industry based mainly on Gommier (70% of total timber supplies). The availability of abundant supplies of lumber makes boat building a promising industry in this region. Here a detailed study would be desirable.

150. Traditionally, the islands have been exporters of raw materials which are processed abroad, and importers of the processed product. A prime example is sugar and sugar confectionary. The scope for local production is worth investigating. In this category too, would fall the whole range of ancillary industries based on edible oils.

#### C. Small-scale industries to satisfy local consumers' demand

151. Bearing in mind transport costs in the area and other differentials such as wage levels, there is scope for establishing more small and medium scale industries to satisfy local consumers' demand. In the clothing industry, for example, there is need for standardising clothing like school uniforms in every island.

152. It would be worth investigating the possibility of establishing a tyre recapping plant on some islands. Consideration could also be given to soft drink plants which by their nature are small units given natural protection by high transport costs.

153. In Dominica, there is a bakery equipped with a large Baker Parkins machine for biscuit production. Through lack of capital and expertise, the bakery is working at very low efficiency. Given some technical assistance, the bakery could satisfy a large proportion of the local demand in the Eastern Caribbean. If requested, UNIDO could recruit a short-term adviser.

154. Even if regional integration industries are established to produce cotton and synthetic fabrics on a large scale, there will still be room for ancillary small and medium scale textile industries such as knitting, warp knitting, towel-making and speciality weaving. These industries could use local supplies of spun cotton yarn.

155. Small plants to pasteurise fresh milk could be considered in all the less-developed territories; this must be done simultaneously with development of the local supply of fresh milk and the promotion of a market for the product. It would be desirable to use any seasonal surpluses to manufacture white cheese and yoghurt for local consumption, and to discourage imports of preserved milk - condensed, evaporated or powdered.

156. Small plants for the manufacturing of pork products from trimmings could be established in several islands. The trimmings could be supplied by the existing two factories in Jamaica and Trinidad, and these materials supplemented by local pig production. One such plant is now being set up in Bridgetown, Barbados. There are other opportunities in the food processing industry. The Eastern Caribbean region imports a variety of canned fruits and nectars which could be replaced at least in part by juices and fruit segments produced locally. There is already in every island some knowledge however rudimentary, of preparing such products and bottling them.

#### D. Creation of ancillary small scale industries

157. The more advanced level of industrial development in the larger territories could be used to advantage to promote the establishment of small-scale industries in the less developed territories. A case in point is the assembly of automobiles in Trinidad. At present the parts are nearly all imported ready assembled. Simple components which could be manufactured in the smaller islands include exhaust mufflers, tail pipes, air cleaners, oil filters, spring U belts, spring shackle pins, spring clips, spring bushes etc., and this might even be extended to take in some of the electrical components, instruments and lighting units. These industries would not only feed components to the major assembly plant, but also supply the replacement market.



E. General conclusions

158. The successful establishment of the industries mentioned above and other industries requires further study to determine factors such as optimum size of plant, costing, location etc.

159. In order to promote more rapid development of small and medium-scale industries in the less-developed territories, the Mission recommends:

- (a) that these territories seek assistance in designing appropriate infrastructure facilities; financial assistance may be available from the Caribbean Development Bank,
- (b) that the territories consider the need for one or more expert advisers on small-scale industry development; such advisers could be recruited by UNIDO, and included in the group of international experts attached to the proposed CARIFTA Industrial Development Centre.

V. POLICIES AND MEASURES REQUIRED TO IMPLEMENT A PROGRAMME OF REGIONAL INDUSTRIALISATION IN THE CARIFTA COUNTRIES

160. The implementation of a programme of regional industrialisation will require some rethinking of the policies formulated at the national level to promote, guide and control industrial development to place them in a regional context. The chapter deals first with the set of policies required to launch a regional programme of industrialisation. The machinery required to implement these policy measures is discussed in the next chapter of the report.

1. Policies discussed in the CARIFTA agreement

(a) Tariff and trade policies

161. The basic policy element of the CARIFTA Agreement is that the member countries will remove trade barriers (tariffs and quantitative restrictions) among themselves, but keep their own tariff levels and quantitative restrictions against countries outside the Area.

162. A number of provisions were included to ensure fair trade practices under the Agreement. Government subsidies to, or direct tax concessions on, exports to other CARIFTA countries are not permitted; the granting of drawback on import duties paid on imported goods included in finished goods subsequently exported to another CARIFTA country is prohibited.

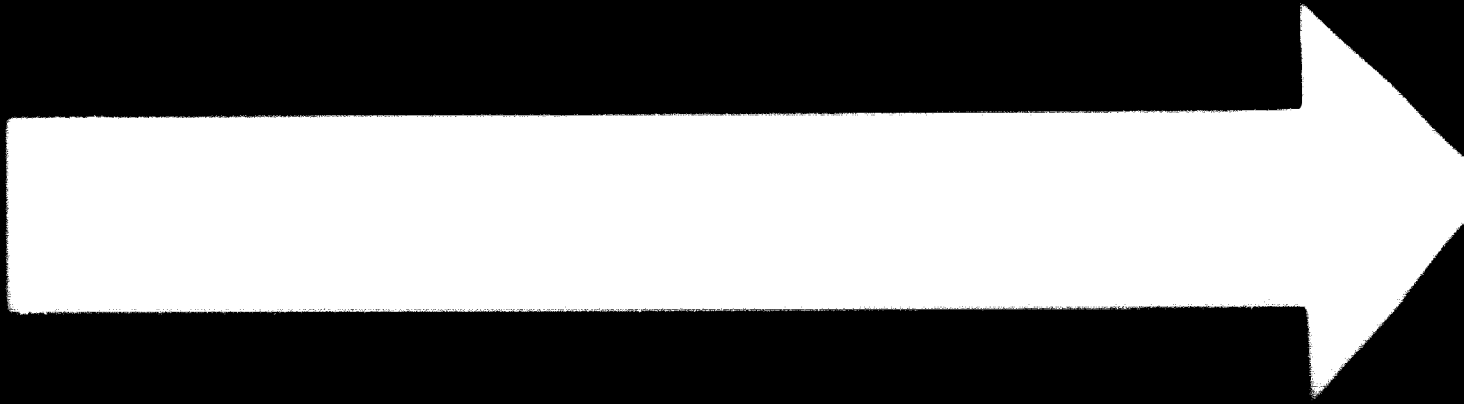
163. The text of the Agreement gives the governing body of CARIFTA the power to make recommendations on the harmonization of fiscal incentives. In Resolution 11 adopted by the Fourth Heads of Government Conference on Regional Integration, the CARIFTA Governments asked the ECLA Secretariat to undertake a study on the harmonisation of incentives.<sup>1/</sup> In the meantime, Article 23(1) of the Agreement prohibits any member country from introducing more generous incentives than the most generous already obtaining in any one of the member countries.

(b) Incentive policies

164. The Mission examined the incentive policies of member countries; a comparative analysis is attached as Annex A to the report. The

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<sup>1/</sup> This study was under way in ECLA office for the Caribbean at the time of writing this report.



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analysis shows that there is a wide disparity in the type and generosity of incentives offered to investors by the member countries of CARIFTA. The Mission believes that some harmonisation of these incentives is essential, and that their future application should take account of all the policy measures which affect the commercial profitability of a new enterprise, i.e. tariff protection, subsidised financing, subsidised land and factory buildings and labour training grants as well as tax incentives and import duty concessions. The legitimate needs of the less developed territories to establish new industries should be taken into account. In this connection, the removal of certain disincentives (e.g. lack of adequate infrastructure) will be equally important. In addition to more generous incentives, other policy measures (e.g. licensing of new industrial projects) may be required to ensure this policy objective is realised.

2. Further measures required to launch a programme of regional industrialisation

165. Resolution 4 adopted at the Fourth Heads of Government Conference on Regional Integration reads as follows:-

"The principle should be accepted that certain industries may require for their economic operation the whole or a large part of the entire regional market protected by a common external tariff or other suitable instrument. The location of such industries and the criteria to be applied in respect thereof, as well as the implementation of the principle accepted above, should be the subject of immediate study - such study to have special regard to the situation of the relatively less-developed countries."

166. Furthermore Resolution 7 requested the ECLA Secretariat to identify industries which should be located in the less developed territories and to devise special measures for securing the establishment of such industries in these countries.

(a) Definition of Regional Integration Industries

167. For the purposes of this report, industries which require the whole or a large part of the entire regional market for their economic operation have been called "Regional Integration Industries". If this

type of industrial project is to be established in the CARIFTA region, new policy decisions on the part of the CARIFTA Governments will be required. In particular the term "Regional Integration" industry will have to be more carefully defined and rules governing their establishment created.

168. The sponsors of many if not all such projects can be expected to ask for (a) some assurance that other producers of the product within the area will not be granted favourable treatment for a certain minimum period of years, and (b) that they will be granted effective protection from foreign competition in all the CARIFTA member countries. Therefore new measures on licensing industrial projects and the unification of external tariffs on products produced by these industries will be required.

(b) Licensing of new industrial projects

169. At present none of the CARIFTA countries has a system for licensing the establishment of new industries; Government approval is only required if the enterprise wishes to benefit from one of the different incentive acts. The present system does not provide sufficient inducement and protection to potential sponsors of a Regional Integration Industry. There is no assurance that a second enterprise manufacturing the same product could be established, and even benefit from the incentives offered by a different country within the CARIFTA area.

170. The Mission recognizes that the establishment and implementation of policy on licensing new industrial establishments is one of the most difficult and complex issues which the Council of CARIFTA will have to work out in the near future. If it is agreed that permanent licensing machinery is needed, the range of projects to be covered (expansions schemes as well as new projects) will have to be defined. The definition of Regional Integration industries provided above does not exclude the issuing of a licence for a product which is already produced on a small scale in the CARIFTA region: it could include existing national plants which have sufficient excess capacity to supply the market in other CARIFTA countries; it could also include existing plants who wish to expand their capacity to supply the market in other CARIFTA countries.

171. The Mission therefore recommends that the CARIFTA Secretariat (a) make a detailed survey of all major existing industrial establishments, and (b) recommend to the Council of Ministers criteria on which industries or industrial products can be classified as Regional Integration industries. If requested UNIDO could recruit an Industrial Policy Adviser to assist the Secretariat in this work and the subsequent design and implementation of an appropriate regional licensing system.

(c) Licensing and the location of new industrial projects

172. The Mission recognizes that the choice of location for new projects established as Regional Integration industries is ultimately a political decision which only the member countries of CARIFTA can decide. However, it believes that these decisions should be based on as much technical information as possible, in particular on estimates of the total cost of production and distribution to satisfy the demand within the CARIFTA Region. Such information will need to be based on a detailed study of each project.

173. The Mission recommends that the CARIFTA Secretariat (a) make a detailed survey of the locational distribution of industrial projects established in the area at present; and (b) suggest some general criteria to the Council of Ministers which can be used to decide whether or not a new plant established as a Regional Integration industry can be located in one of the less-developed territories.

(d) Internal tariffs

174. The licensing system proposed above will not by itself secure the market for a project established as a Regional Integration industry. In most cases the industry will also need some form of protection from foreign competition. The Mission therefore recommends

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2/ In addition to the linkage effects with existing industries, it might be possible to agree on some general criteria - for example, that an industry should be located in the less-developed territories if the difference in the total cost of production and distribution to the whole CARIFTA market is no more than, say, 10% higher than it would be in another location closer to one of the major population centres.



that the CARIFTA Council establish a permanent committee of senior Government officials to establish the initial level and keep under continuous review over the years the CARIFTA common external tariffs granted to Regional Integration industries and other industries. To facilitate the committee's work, the CARIFTA Secretariat should (a) make a review of the existing tariff structure of each member state, (b) encourage each member state to adapt their customs laws to the same tariff nomenclature, and (c) suggest criteria<sup>3/</sup> on which the uniform level of external tariff for industrial projects, component parts and raw materials can be established. If requested UNIDO could recruit a second Industrial Policy Adviser to assist the CARIFTA Secretariat with this work, the subsequent design of an appropriate regional tariff structure, and the continuing review which it requires.

(c) Industrial financing

175. Apart from the industrial development bank in Jamaica, and loans extended by the industrial development corporations in Barbados, Guyana and Trinidad and Tobago, there are no institutions to which industry can turn for equity and medium- and long-term loan capital. The proposed Caribbean Development Bank will presumably be willing to invest in the larger industrial projects, but this in no way reduces the need for some additional institutions specializing in financing new industrial enterprises and the expansion or modernisation of existing plants.

176. The existing institutions have been mainly interested in helping the pioneer or larger industries. The small industries appear to have derived very limited benefit from their facilities. Further additional machinery therefore needs to be created in order to cater to the special needs of very small entrepreneurs, craftsmen, artisans, etc. who do not have access to the commercial banks and other financial

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<sup>3/</sup> The criteria used and the level of tariff protection granted will determine the efficiency of new industrial units established in the CARIFTA region and the range of industries which can be established. If, for example, industry requires tariff protection of 50%, the cost of the locally made products will be up to 50% higher than the cost of imports and the standard of living of consumers as well as the possibility of exporting items using locally-made materials will suffer accordingly.

institutions. These facilities could be established either in the headquarters of the central monetary authorities or as a section of the existing agricultural credit banks.

(f) Company Law

177. To provide an opportunity for wider ownership of industrial enterprises, the laws relating to the registration and operation of companies should be revised and brought up to date and made uniform throughout the area. The new laws should stipulate that a minimum proportion of the capital must be owned by nationals of CARIFTA countries, leaving the Governments free to insist on a higher proportion on a case by case basis when new ventures are established in co-operation with foreign investors. New regional integrated industries should be formed as public companies under the law of the country in which they are established. Shares should be offered for subscription to nationals of all CARIFTA countries on an equal basis. Unsubscribed shares should be taken up by the governments or government sponsored financial institutions and subsequently sold to nationals. To facilitate regional ownership, double taxation agreements or other special arrangements will need to be negotiated.

(g) Foreign Investment

178. A common policy in regard to foreign investment within the area should be worked out and agreed upon as soon as possible. Such a policy should seek to ensure:

- i. The channelling of foreign investment towards new fields.  
In this regard, encouragement may be given to the establishment of companies with a mixture of foreign and local capital.
- ii. That foreign capital brings in technical management and adequate marketing experience which are scarce in the CARIFTA region.
- iii. That foreign companies share the management of enterprises with CARIFTA nationals and undertake to give adequate training to local personnel at all levels.

- iv. That foreign investors give local investors the opportunity to acquire capital stock.
- v. That the enterprise is free and encouraged to sell CARIFTA products in export markets.

179. In order to ensure maximum usefulness, the encouragement of foreign capital should be undertaken within the framework of a clearly formulated policy which: (a) takes account of the capacity of the national economy to absorb foreign investment; and (b) the need to mobilize foreign resources to supplement domestic financial resources. The study on foreign investment now being conducted by the University of the West Indies may usefully examine these considerations in order to assist CARIFTA countries in formulating an effective policy.

(b) Industrial standards

180. The development of many branches of industry as well as services to the users of the products produced will be facilitated if the CARIFTA countries agree to implement a policy of standardising product specifications and designs. If requested, UNIDO will recruit a short-term expert to advise the Council of Ministers on an appropriate policy and the machinery required to implement it.

**VI. THE INSTITUTIONAL FRAMEWORK REQUIRED TO IMPLEMENT**  
**A PROGRAMME OF INDUSTRIALIZATION IN THE**  
**CARIFTA COUNTRIES**

181. At this early stage, the institutional framework to support the regional economic co-operation between CARIFTA countries is still being evolved. The Mission therefore considered what type of regional machinery would be needed to implement the industrial projects and policies which it has recommended in earlier chapters.

**1. A CARIFTA Industrial Development Centre**

182. In chapter III the Mission noted that if the CARIFTA countries are to continue their efforts to identify industrial projects suitable for implementation as Regional Integration industries, a continuing programme of work would have to be evolved and this might best be performed by the establishing of a CARIFTA Industrial Development Centre. The Mission believes that this proposed institution could play a vital and important role in realizing the benefits of regional co-operation in the field of industrial development.

183. One of the important aims of this institution would be to identify and promote industrial projects which can be located in the less-developed territories. These member countries do not have the financial resources or machinery to develop and promote their own programmes of industrial development. On the other hand Barbados, Guyana, Jamaica, Trinidad and Tobago have each used an industrial development corporation for this purpose in the past.

184. One of the main functions of the proposed centre would be to make a continuing series of studies of various branches of industry on a regional basis with a view to preparing preliminary studies or detailed feasibility studies of specific projects. At present the four industrial development corporations mentioned above are only partially equipped and directed to carry out this type of work.

185. Another function would be to promote the establishment of more export-oriented industries to provide more employment for the areas under utilized labour forces. There is a need (a) to identify more new products with sound expert prospects and (b) to help provide interested enterprises with the guidance and skilling training which industrial products requires. International Experts could help the Centre fulfill these functions.

186. Another function could be to promote intra-regional trade in industrial products. At present such trade accounts for less than 6% of the total trade of CARIFTA countries because of (a) local manufacturers' ignorance of sales possibilities in other CARIFTA countries, (b) inadequate protection from foreign competition in some countries, (c) long-established trade links with suppliers outside CARIFTA reinforced by heavy local advertising by foreign firms, (d) inadequate intra-regional transport and communications facilities. The CARIFTA agreement has established conditions in which intra-regional trade can develop, but a central information and promotion service is required to see that trade develops further. In addition the design and quality of products manufactured in one CARIFTA country needs to be adapted to the tastes of consumers in other countries. International experts could help the Centre fulfill these functions.

187. The functions of the proposed CARIFTA Industrial Development Centre might be:

- a) to make surveys on a regional basis of particular branches of industry with the aim of identifying specific projects suitable for implementation as Regional Integration industries or as national projects or as export-oriented projects;
- b) to make more detailed market surveys and feasibility studies of projects identified in this way;
- c) when requested, to advise the Council of Ministers and CARIFTA Secretariat on the technical and economic considerations involved in the choice of location for new industrial projects;
- d) to promote the interest of foreign investors and advise on sources of external financing in selected industrial projects;
- e) to advise on the appropriate foreign technical processes to be used for specific projects and on the terms and conditions for the use of foreign technical "know-how";
- f) to advise the less-developed territories on the development of an appropriate infrastructure, industrial areas and industrial estates;
- g) to provide assistance to the less developed territories on the establishment and management of small industries.

- h) to identify industries with sound export market prospects, promote their establishment, and advise on export marketing;
- i) to provide a central information and trade promotion service to increase intra-regional trade within CARIFTA.

188. The Mission found that there were a number of opinions on a suitable location for such a Centre. Some felt it should co-operate closely with the proposed Caribbean Development Bank, others felt its work might be more closely related to that of the CARIFTA Secretariat; another view was that it need not be directly linked to either of these institutions. It was, however, agreed that the staff of the Centre should be drawn from nationals of the CARIFTA countries, assisted by international experts.

189. If the idea is accepted in principle, the Mission recommends that the Council of Ministers appoint a small group (no more than six persons) of senior Government officials and industrialists from the CARIFTA countries to be responsible for all the preparatory work required for the formation of this organization. If requested, UNIDO would send an exploratory mission to consult with this committee and draw up terms of reference for a continuing programme of UNIDO Assistance, perhaps as a Special Fund Project.

### 2. The CARIFTA Secretariat

190. Chapter V identified important policy questions on which substantial further study was required and suggested that this should be part of the functions of a strengthened CARIFTA Secretariat. If requested, UNIDO could recruit a small group of Policy Advisers to assist the Secretariat to prepare studies on and eventually implement new policies established by the Council of Ministers in such fields as: the licensing of new industrial establishments, the tariff structure, industrial financing, company law, industrial standards, etc.

### 3. Regional pilot plant project - East Caribbean

191. The Mission believes that a pilot plant project could usefully be established to develop and test the industrial processing of a range of locally grown agricultural crops (a) to produce processed and prepared foods for local consumption and export markets, and (b) to produce essential oils (lime oil, lemon oil, pimento oil, etc.) for local and export markets. The

marketability of the products would also be carefully examined. Kingston, St. Vincent is considered to be a suitable location for such a project.

192. If the idea is accepted in principle, UNIDO would be willing to send an exploratory mission to identify the range of agricultural crops to be considered, to establish detailed terms of reference for the project, and determine the form of assistance which UNIDO could provide. FAO would be invited to join this exploratory mission.

#### 4. The Caribbean Development Bank

193. A draft agreement establishing the Caribbean Development Bank was prepared at the beginning of 1968. Its declared purpose is "to contribute to the harmonious economic growth and development of the member countries in the 'Caribbean region' and to promote economic integration among them, having special and urgent regard to the needs of the less developed members of the region." Besides the CARIFTA member countries, the Bank comprises also as regional members the Virgin Islands, Cayman Islands, Turks and Caicos Islands. Therefore, its membership and that of CARIFTA are not linked in the Agreement.

194. The authorized capital stock of the Bank would be US \$ 65 million. Not less than 60% of the capital would at all times be held or be available for subscription by regional members, and not more than 40% by other members. It is expected that the non-regional members would be: the United Kingdom, Canada and Puerto Rico; in addition, the United States will make a substantial loan in the initial stages of the Bank's operation.

#### 5. General Conclusions

195. The Mission believes that the establishment of the CARIFTA Industrial Development Centre and the Regional Pilot Plant project in the East Caribbean, the strengthening of the CARIFTA Secretariat and the implementation of the Agreement to establish the Caribbean Development Bank will reinforce the process of regional co-operation launched in May 1968 by the signing of the CARIFTA Association Agreement.

**VII. RECOMMENDATIONS FOR A PROGRAMME OF ACTION TO FOLLOW-UP THIS REPORT, AND RELATED SUGGESTIONS FOR FURTHER UNIDO ASSISTANCE**

196. The purpose of this chapter is to draw attention to the recommendations made in the report which require decisions by the CARIFTA Governments and Council of Ministers for follow-up action, and where relevant repeat the suggestions made for further UNIDO assistance.

**1. Follow-up action to establish regional institutional machinery**

197. If the proposed CARIFTA Industrial Development Centre is to be launched, follow-up action could consist of (a) establishing a small committee of officials to guide its formation, and (b) requesting UNIDO to send an exploratory mission to draw up terms of reference for a continuing programme of technical assistance to the proposed centre.

198. If it is decided to strengthen the CARIFTA Secretariat, follow-up action could include a request to UNIDO to supply a small group of Industrial Policy Advisers.

199. If interest is expressed in the Regional Pilot Project - East Caribbean follow-up action could include a request to UNIDO (and PAO) to further explore this potential project.

200. The Mission considered whether a separate institution was justified to provide a central information and promotion service aimed at promoting intra-regional trade in industrial goods. It believes such a service should form part of the functions of the CARIFTA Industrial Development Centre.

**2. Follow-up action in individual branches of industry**

201. Follow-up action on the studies made of the four branches of industry studied by the team is suggested below.

**(a) The textile industry**

This Mission recommended that the Governments of CARIFTA countries consider three textile projects:

- i. An integrated cotton textile mill
- ii. An integrated textile mill using man-made fibres
- iii. A moderate-sized mill to produce cotton yarn



202. The first two projects have been studied in sufficient detail for the Governments to discuss their possible implementation with potential investors (both domestic and foreign). If requested, further assistance from UNIDO could take the form of:

- (a) Providing a consultant firm to make a detailed study of the demand for these types of textile fabrics.
- (b) Assist local interest and/or Governments in locating suitable foreign investors and sources of financing to establish the two projects.
- (c) Providing a textile industry expert (perhaps attached to the CARIFTA Industrial Development Centre) to evaluate specific proposals and supervise the initial stages of establishing these two textile projects, and other projects.

203. In addition, and perhaps at a later stage, UNIDO is willing to provide assistance in studying the feasibility of establishing (a) a polyester spinning plant, and (b) a nylon spinning plant.

204. Unless already requested, the Mission recommends that the Governments of CARIFTA countries request the immediate assistance of FAO to study the technical and commercial feasibility of producing locally the types of cotton which will be required by the CARIFTA textile industry.

(b) Follow-up action for the food processing industry

205. In Chapter III, the Mission drew attention to opportunities to establish plants to supply all or a major part of the CARIFTA market which exists in the following branches of the food-processing industry: flour milling, dairy products, meat processing, animal foodstuffs, fruit and vegetable processing and sugar refining.

206. All these opportunities will require further elaboration in the form of detailed feasibility studies before specific projects can be identified and their implementation promoted. If requested, UNIDO assistance in the elaboration and subsequent implementation of these projects could take the form of:

- (a) Preparing more detailed studies of specific projects for each of these six branches of the food-processing industry,

- (b) On the basis of the findings of these studies, assist local interests and/or Governments in locating suitable foreign investors and sources of finance for some of the projects.
- (c) An expert in food-processing industries to evaluate specific investment proposals and provide further advice during the initial stages of establishing these projects.

207. The Mission also draw attention to the opportunity for developing a fish-processing industry to supply the CARIFTA regional market and possibly export markets as well. If requested, UNIDO assistance in the elaboration and subsequent implementation of this regional project might take the form of:

- (a) An expert on the fish-processing industry to make a detailed study of the possibility of establishing a regional fish-processing project.
- (b) If the findings are favourable, use them as a basis either
  - (i) to attract the interest of a foreign investor in establishing such a project as a joint-venture with local interests, or
  - (ii) to outline a continuing programme of UNIDO technical assistance to the project.

(c) Follow-up action for the pulp and paper industry

208. A final decision on follow-up action must be based on a reading of the detailed report. In advance of reading this, it would appear worth while in the near future to make a market survey of the present and future demand within CARIFTA.

(a) for corrugated board

(b) for writing paper and other grades of fine paper.

209. If requested, UNIDO could provide an expert or firm of consultants to carry out these surveys.

(d) Follow-up action for the chemical industry

210. A final decision on follow-up action must be based on a reading of the detailed report. In advance of reading this, it would appear worth while in the near future,

- (a) to investigate in detail the feasibility of a large caustic soda plant;

- (b) examine the possibility of establishing a solar salt producing industry to supply this project and other local market requirements for salt;
- (c) to design the proposed sulphuric acid plant in Jamaica with the regional market in mind;
- (d) to make market studies to see whether furfural manufactured from bagasse can be sold in export markets;
- (e) to assess present and future demand in CARIFTA and present sources of supply for
  - (i) pharmaceutical preparations
  - (ii) soap, cosmetics and toiletries
  - (iii) pesticides

211. UNIDO has been requested by Trinidad to assist on item (d) and by Jamaica to provide a chemical industry adviser. Requests covering other items could be made or the studies could be made by the proposed CARIFTA Industrial Development Centre.

THE DIFFERENT TYPES OF INCENTIVE MEASURES  
USED BY CARIFTA COUNTRIES

a) Pre-investment Stage:

Barbados, Guyana, Jamaica and Trinidad and Tobago each have an Industrial Development Corporation, which is a semi-governmental body. It assists potential local and foreign investors in identifying investment opportunities to the extent of offering considered opinions on suitable industries.

These corporations have mainly been concerned with promoting the establishment of plants which qualify for incentives; typically, these are the larger types of industrial enterprises. The smaller entrepreneur appears to have derived less benefit from their programme so far.

In the other CARIFTA member countries, including Belize, no assistance with identifying investment opportunities is now available.

In none of the twelve countries is there a body which is available at present to undertake, on behalf of investors, feasibility studies of industrial projects.

b) Physical Facilities:

The Industrial Development Corporations in Barbados, Jamaica and Trinidad and Tobago have promoted the development of fully serviced industrial estates.

In Barbados, space can be rented in units of approximately 4,000 sq. ft. of a Multi-User building at a straight rental of about US 35¢ per sq. ft. per annum, or separate factories of a minimum of 10,000 sq. ft. can be provided by the I.D.C. on a lease/purchase arrangement. The cost of the building is amortized over 15 years by an annual rental of 1/15 of cost.

In Jamaica, the rents charged for the factories aim at recovering their cost over a period of ten years; this involves a small subsidy since the land is sold at cost, a price which is not below the current market price. All services, including water and power, are provided at normal rates.

Trinidad and Tobago is liberally provided with industrial parks as opposed to industrial estates in the generally accepted definitions of these terms. There are some 405 acres developed or in the course of development, and a reserve of 417 acres. No special size restriction is placed on the site to be occupied by an enterprise. However, under the Corporation's regulations 40% of the "usable building space" must be covered by buildings, and not more than 6% of the site must be covered.

In Guyana, there is an industrial site and the rental is 5 US cents per sq. ft. per year. Water and electricity are available, but their rates must be negotiated with the respective companies.

Montserrat and St. Kitts-Nevis-Anguilla have industrial sites, but land, water and electricity are provided at prevailing tariff rates.

In the other CARIFTA member countries, physical facilities are non-existent.

c) Assistance with labour:

Like some other developing countries, lack of industrial skills is an important constraint on the industrial potential of the CARIFTA member countries. The efforts of the governments to provide assistance in the field of training for industrial skills are still limited.

In Barbados, financial assistance in in-plant training is given under a training scheme which offers a grant ranging between  $\frac{1}{4}$  and  $\frac{1}{2}$  of the wages paid during the first year for a training period not exceeding twelve weeks for each employee.

In Jamaica, the Industrial Development Corporation has provided training programmes for middle management and assisted firms in specific cases. Although the value of providing financial assistance to firms to help them with training labour is recognised, the contribution has so far been very small (£26,000 in 1966/1967 and a budgeted £37,000 for 1967/1968).

In Trinidad and Tobago, vocational training was linked, in the past, with apprenticeship schemes and administered by the Board of Industrial Training. Government recognises that this method is outmoded, and in the five-year plan 1963-1968, has made provisions for nine new vocational schools. The Industrial Development Corporation has established training schools for the hotel and catering trades and the export-oriented industries only as a crash programme designed to meet the needs of these industries in a certain kind of skilled labour.

St. Lucia has a technical school as well as a comprehensive school which is a post-primary school, for the formation of skilled labour.

No assistance with labour is provided by the other countries of the CARIFTA area.

d) Assistance with Management:

The policy of all the governments in this area, on employment of foreign personnel in technical and management positions, aims at creating a favourable climate for foreign investment. In principle, the governments' policy is for companies to train local personnel to replace foreign nationals in managerial and technical posts. This policy is implemented by the requirement that all foreign nationals should obtain a work permit. However, there has been no real pressure to replace foreign nationals by local personnel, and it is difficult to think of instances where an industrial project failed to go through on account of difficulties in obtaining permission to import skilled personnel from abroad.

However, reference must be made to the Management Development and Productivity Centre in Port of Spain. This centre has been established in 1965 with the help of U.N. Special Fund, the International Labour Organisation and the Government of Trinidad and Tobago. It works under the auspices of the Ministry of Trade. The centre provides training in modern management to managers, executives, specialists and industrial supervisors in Trinidad and Tobago, as well as to selected trainees in similar categories from other Eastern Caribbean Countries who may attend training programmes in Port of Spain.

e) Protection from Foreign Competition:

In Jamaica and Trinidad and Tobago, governments make use of a moderate degree of tariff protection as well as of quantitative restrictions imposed by the import licensing system in order to secure some form of protection for their domestic industries from foreign competition.

As to the other CARIFTA member countries, including Belize, there has not been much need to date for tariff protection or physical import controls, except in the case of a very few small industries. The absence of this protection is due either to the non-existence of industries in some of these islands, or to the generous fiscal incentives which provide favourably competitive terms to local industries. However, governments would, of course, be prepared to consider protective measures for any would-be industry where necessary.

f) Reduction in Tariffs for Raw Materials, Plant and Machinery, etc:

The policy of granting exemptions on imports varies within the region. Montserrat and St. Vincent grant no exemption on raw materials, plant and machinery. Among the other territories there are some who grant exemptions on plant, machinery and raw materials; others on plant and machinery only and a third group exempts only raw materials.



In Dominica and Trinidad and Tobago, the laws provide for the exemptions of customs duty on raw materials, building material, machinery or other appliances and material necessary for and used in the construction, alteration, extension, equipping and operation of the factory.

In Antigua, Barbados, Guyana, Jamaica and St. Kitts-Nevis-Anguilla, plant and machinery are admitted duty free for industries enjoying approved pioneer status. Firms who export 100% of their output obtain blanket exemptions from the payments of duties on imported raw materials. For firms who only export a proportion of their output, a system of import duty draw-back exists. Some firms also benefit from special rulings on duty free importation of raw materials granted by the Ministry of Trade.

Belize grants relief from customs duty only in respect of the importation of plant and machinery from the Commonwealth, otherwise they are taxed 5% ad valorem. Belize does not grant any exemptions on imports of raw materials.

Grenada and St. Lucia grant exemptions on raw materials only, but not on plant building and machinery.

#### g) Finance Assistance:

The Barbados Development Board in Barbados, the Development Finance Corporation in Jamaica and the Industrial Development Corporation in Trinidad and Tobago are lenders of last resort and will make loans available to industries where finance is not available from other sources. The loans are usually for from five to ten years and interest varies actually between 8% and 8½%.

Guyana has a fund created conjointly by the local government and the government of the United States of America. It allows investors an opportunity to contract loans of up to US\$250,000, although applications for larger sums will be considered. But in the case of obtaining a loan, the debtor must purchase his imported goods from the United States of America.

No similar institution for making loans on favourable terms is available in the other CARIFTA member countries including Belize.

**h) Fiscal Incentives:**

1. **Exemption from income tax:** All the CARIFTA countries make provision for this kind of incentive. Antigua, Dominica, Guyana, St. Kitts and Trinidad and Tobago give an income tax exemption for five years for new approved industries. However, this period can be extended to ten years in Trinidad and Tobago, and to fifteen in St. Kitts; in Dominica an enterprise located in the C-brite area could be granted exemption for a period of thirty years as from 16 February 1968. Grenada and Montserrat provide for income tax exemption for seven years; in St. Lucia an enterprise may be entitled to such proportionate relief from income tax as is specified in the Development Order for a period of seven years. In Belize and St. Vincent the exemption is ten years.

Jamaica and Barbados offer an approved enterprise the option of choosing a straight forward exemption from income tax of seven and ten years respectively (option 1) or of preferring an alternative arrangement (option 2). In Jamaica this comprises complete exemption from income tax for a period of four years from the date chosen by the enterprise

within three years from the date of production and further

(i) if the company is entitled to 100% relief, it will enjoy the exemption with respect to  $33\frac{1}{3}\%$  of income in the fifth year and to  $66\frac{2}{3}\%$  of income in the sixth year before deduction of annual allowances;

(ii) if the company is entitled to 50% relief, it will enjoy the exemption with respect to  $66\frac{2}{3}\%$  of income in the fifth year and  $83\frac{1}{3}\%$  of income in the sixth year before deduction of annual allowances. In Barbados, the second option comprises complete exemption from income tax in the first seven years and  $\frac{2}{3}$  exemption from income tax in the eighth year and  $\frac{1}{3}$  in the ninth year. Jamaica also permits a longer exemption from income tax, of ten years for new product industries or of as much as 15 years for industries located in certain development areas.

2. Capital allowances: In Antigua, Belize, Dominica, Grenada, Montserrat, St. Lucia and St. Vincent no special provisions have been made in this respect. It is assumed, therefore, that assets of the enterprise will be written down during the tax holiday period in the normal manner laid down in the income tax ordinance.

In Guyana, St. Kitts and Trinidad and Tobago, in computing the income of the tax holiday period and for the whole of the accounting period in which the last day of the tax holiday period falls no allowance for wear and tear is to be made. Allowances shall be computed after the tax holiday period as if the special expenditure incurred up to the end of that period were incurred on the first day

following thereafter. In St. Kitts the computation will include only annual wear and tear allowances, not initial allowances. In Guyana and Trinidad and Tobago the entrepreneur is entitled to claim both initial and annual allowances.

In Barbados and Jamaica, under option 1, national depreciation of assets will be made during the tax holiday period and annual allowances can be claimed after the tax holiday period at the written down value. Under option 2, prior to commencement of the holiday period, annual allowances shall be made, but they will cease during the first seven years of holiday period in Barbados and four year period in Jamaica; again annual allowance will be made starting with the eighth and fifth year respectively of the tax holiday period on the original cost less the allowances made before the commencement of the tax holiday period.

3. Loss offsets In Antigua, Belize, Grenada, Montserrat and St. Lucia, losses not set off during the tax holiday period may be carried forward for the six succeeding years on certain slightly varying conditions. In Dominica this period is five years.

In Guyana and Trinidad and Tobago, any loss incurred during the tax holiday period is to be set off without limitation against the income of the enterprise in the period immediately following. The same is true in St. Kitts and St. Vincent except that the offset must not reduce the income tax payable in any year to less than 50%.

In Barbados, under option 1, all losses incurred during the tax holiday period in excess of the profits of the same period may be carried forward over the five succeeding years. Under option 2, all losses incurred during the first seven years in excess of any profits during the same period together with any loss incurred and not set off before the commencement of the seven-year period may be carried forward and set off over the five years following the nine-year period of tax holiday.

In Jamaica, losses incurred and not written off during the tax holiday period without taking into account any depreciation of assets can be carried forward over the next six years. Under option 2 losses incurred and not written off during the six years of tax holiday period after taking into account allowances made before the tax holiday period and during the last two years of the tax holiday period, can be carried forward for six years following the tax holiday period.

1) Measures to encourage foreign investment:

The exchange control rules in the CARIFTA member countries including Belize are similar. Besides, all these countries are members of sterling area.

Capital payments, incoming and outgoing, are subject to some control. The repatriations of capital in the form of direct foreign investment and the repayment of loans are allowed, provided that the original investment or loan had received previous approval of the exchange control authorities.

It is the practice in this area to allow dividends and interest payable to shareholders, who have made investments in US dollars, to be converted into US dollars and to be transferred in full to the country of residence of the investor after meeting all expenditure, charges, taxation, etc., payable in the region.

j) Bilateral and Multilateral Measures:

All the CARIFTA member countries, including Belize, have negotiated double taxation agreements with the United States of America, Canada and the U.K.

Barbados, Belize, Jamaica, Montserrat, St. Lucia and St. Vincent have also double taxation agreements with Denmark, Norway and Sweden.

Only Jamaica, Montserrat and St. Vincent have double taxation agreements with New Zealand, while only Belize and St. Lucia have the same agreement with Switzerland.

Belize, Jamaica, Montserrat, St. Lucia, St. Vincent and Trinidad and Tobago are signatories to the Convention for the Settlement of Investment Disputes.





**29 . 5 . 72**