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PROJECT DOCUMENT



✓ AGRICULTURAL SECTOR SERVICES  
MARKETING COMPONENT

Submitted to:



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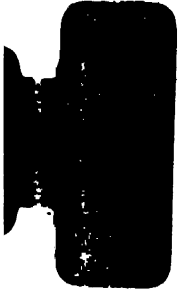
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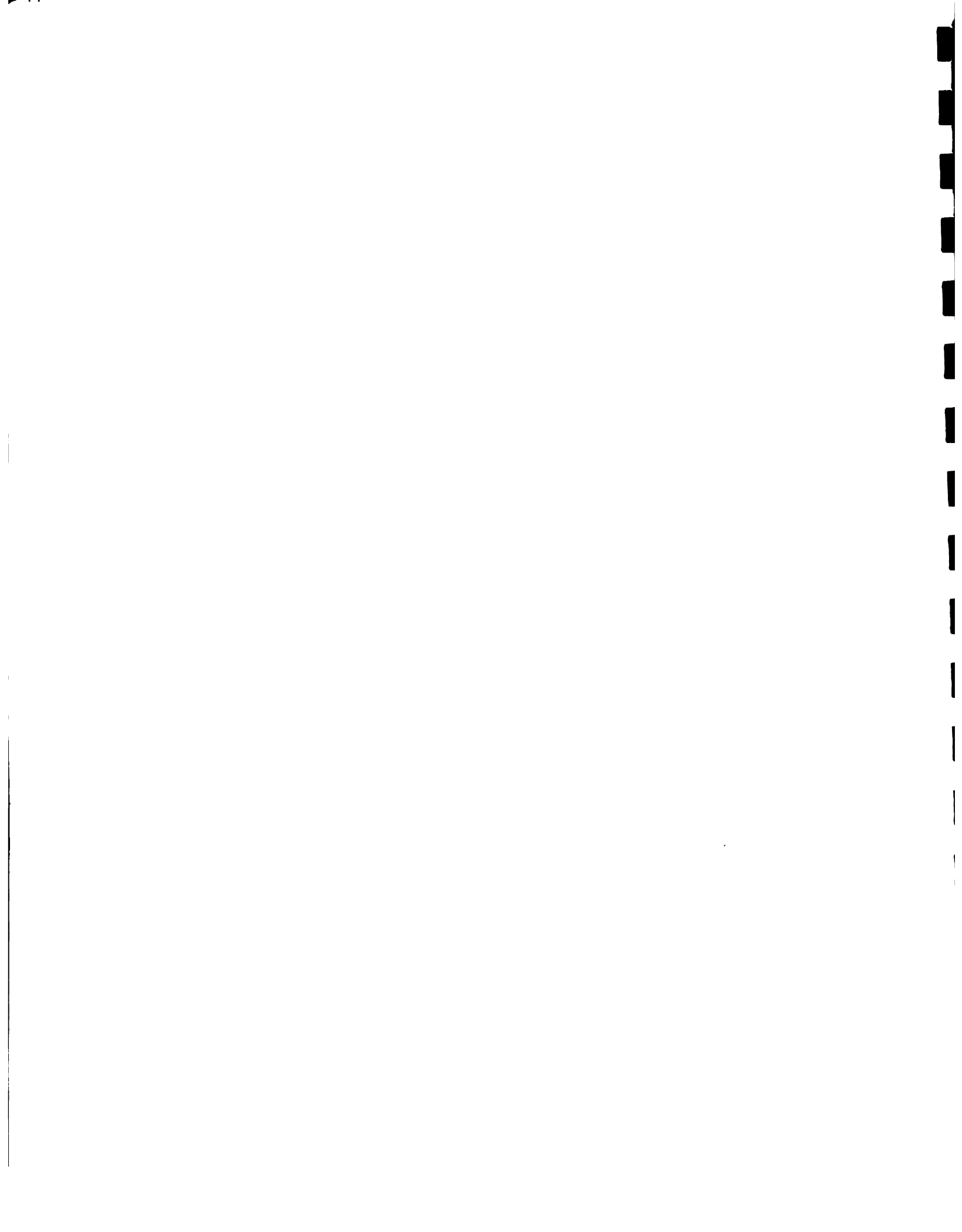
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## 1. INTRODUCTION

This section focuses on the scope of work, work approach and outline of the report.

### A. Scope of Work

The terms of reference for this segment of the task comprises:-

- i. Determining the size of the domestic market for agricultural produce.
- ii. Evaluation of the distribution system.
- iii. Assessment of the infrastructure for the domestic marketing services.
- iv. Development of strategies for more effective marketing of local agricultural produce.
- v. Development of projects to be executed for enhancing the effectiveness of marketing services to the agricultural sector.

The consultant broadened the terms of reference to include export marketing as it is generally felt that the local market is not large enough to absorb the present agricultural output potential of the Bahamas especially for fruits and vegetables.

### B. Work Approach

The consultant uses a six-pronged approach to execute his task. They are:-

- i. He interacted with the key private sector players engaged in investment, production, transportation, distribution, processing, and end products. They include:-

Large scale farmers/exporters	Small scale farmers.
An international shipping line	Mail boat owners.
The two large supermarket chains	Small scale food outlets.
The two largest hotel chains	vendors.
The Nassau based farmers' ASSN.	Restaurants.
The Chamber of Commerce	A major food processor.
Overseas distributors	Overseas brokers.





Small scale food outlets  
Vendors  
Restaurants  
A major food processor  
Overseas brokers

- ii. He consulted with private sector personnel engaged in providing services to the sector. They comprised:-

The Department of Agriculture  
The Packing Houses  
BAIC  
The Ministry of Transport  
The Market Development committee.  
The Produce Exchange  
The Abbator  
The Farm Store  
The Ministry of Finance

- iii. The consultant reviewed various reports and statistics pertaining to production, international trade, and domestic trade. The following is an illustrative list.

The Import/export trade data  
The Produce Exchange purchasing data  
The financial results of the  
Packing house capacities  
Shipping capacities  
Sales to the Produce Exchange by island  
Seasonal supply of domestic produce.

- v. The consultant prepared an interim report or working document for circulation to, and discussions with the other team members engaged in Agronomy, production, irrigation, institutional development, economic and financial analysis. As a result, they have been able to proceed to develop: market driven production programs, farming models, and market related institutional support programs.
- vi. Finally the preliminary report or working paper was presented to a wide range of government personnel to secure their comments and endorsements on the recommended strategies. Those persons to whom the document was presented are:

. The counterpart



- . The Chairman of the Marketing Developing Committee
- . The Advisor to the Ministry of Agriculture Trade and Industry
- . The Honorable Minister and his advisors
- . IABD mission personnel

This report will therefore give adequate consideration to the concerns of the Bahamian authorities.

C. Outline of this Report

This report is presented in four sections as follows:-

- (1) INTRODUCTION
- (2) AN OVERVIEW
- (3) PRESENT MARKET SITUATION
- (4) MAJOR CONSIDERATIONS FOR A MARKETING SUPPORT PROGRAM
- (5) MARKETING SUPPORT PROGRAM

None of the above sections will elaborate on the institutional framework or specific organizational arrangements that should be instituted. The consultant on institutional development will address them in a separate report.



## 2. OVERVIEW

This overview focuses on the policy environment, information affecting marketing transportation services, institutional framework for distribution, the public sector role in marketing, cost-effectiveness of the Produce Exchange and export marketing.

A. Policy - Agriculture has a three-tiered policy framework in the Bahamas. One is for the domestic market, the second for export and the third for Agro-industry.

- . Domestic Agriculture operates in an open market policy environment. Foreign produce compete with local ones in all segments of the market, the hotels, restaurants, households, and food processing. However, measures are being taken to restrict the level of imports whenever domestic supply appears to be adequate. The restriction is administered under the Plant Protection Act which was instituted to ensure that diseased plants that could be detrimental to the local plants and vegetables are not imported into the Bahamas. Importers are therefore requested to secure a permit to import fresh fruits and vegetables. The permit works as an instrument for quantitative restrictions. The administration of quantitative restrictions has multiplicity standards among the Family Islands and it is not clear how the adequacy of the domestic supply is determined. The following examples illustrate:-
- . The Nassau based Department of Agriculture determines and approves the level of importation under the following conditions:
  - inadequate information on aspects of local supplies eg. monthly projected outputs, yields, and output by islands
  - importers appear to overstate their requirements in order to get the permit to import the volume they really need, while the Department lacks the requisite data base or information system to make the necessary adjustments. Permits are granted in Abaco, for importing fresh foods without knowledge of the available supplies in other islands. Their computations of available supplies are merely based on the supply situation in Abaco.



- . Export agriculture is promoted as part of the Bahamas investment promotion program. Its investment promotion program in export agricultural is far less successful than in tourism. The main reason is that foreign investors do not perceive the Bahamas as an advantageous location for investments in agriculture. The key driving forces are:-
  - The BATC does not have an effective or focussed investment promotion program for the agricultural sector
  - The country enjoys international positioning as a leading tourist resort. It is therefore difficult to convince target investors that the Bahamas is ideal for agriculture.
  - It is regarded as a high wage rate country.

THE MAIN CHALLENGE AHEAD FOR THE BAHAMAS IN THE PROMOTION OF INVESTMENT IN EXPORT AGRICULTURE IS TO REPOSITION ITSELF AS A DIVERSIFIED ECONOMY WITH AN ADEQUATE SUPPLY OF LABOR AT COMPETITIVE LEVELS OF WAGES AND PRODUCTIVITY.

- . Agro-industry is being promoted to attract local and foreign investment. The main focus is an activity which will meet large domestic demands which are now supplied by foreign sources. The main industries are: meat and meat products, dairy and dairy products, and processing of fresh fruits and vegetables. The response to the dairy and dairy products industry has not been encouraging so far due to the following reasons:-
  - The industry is virtually non-existing at this time. Therefore investors will be required to take rest at the primary and processing stages of production.
  - Since the required investment is large it will take a much longer time to attract suitable investors.

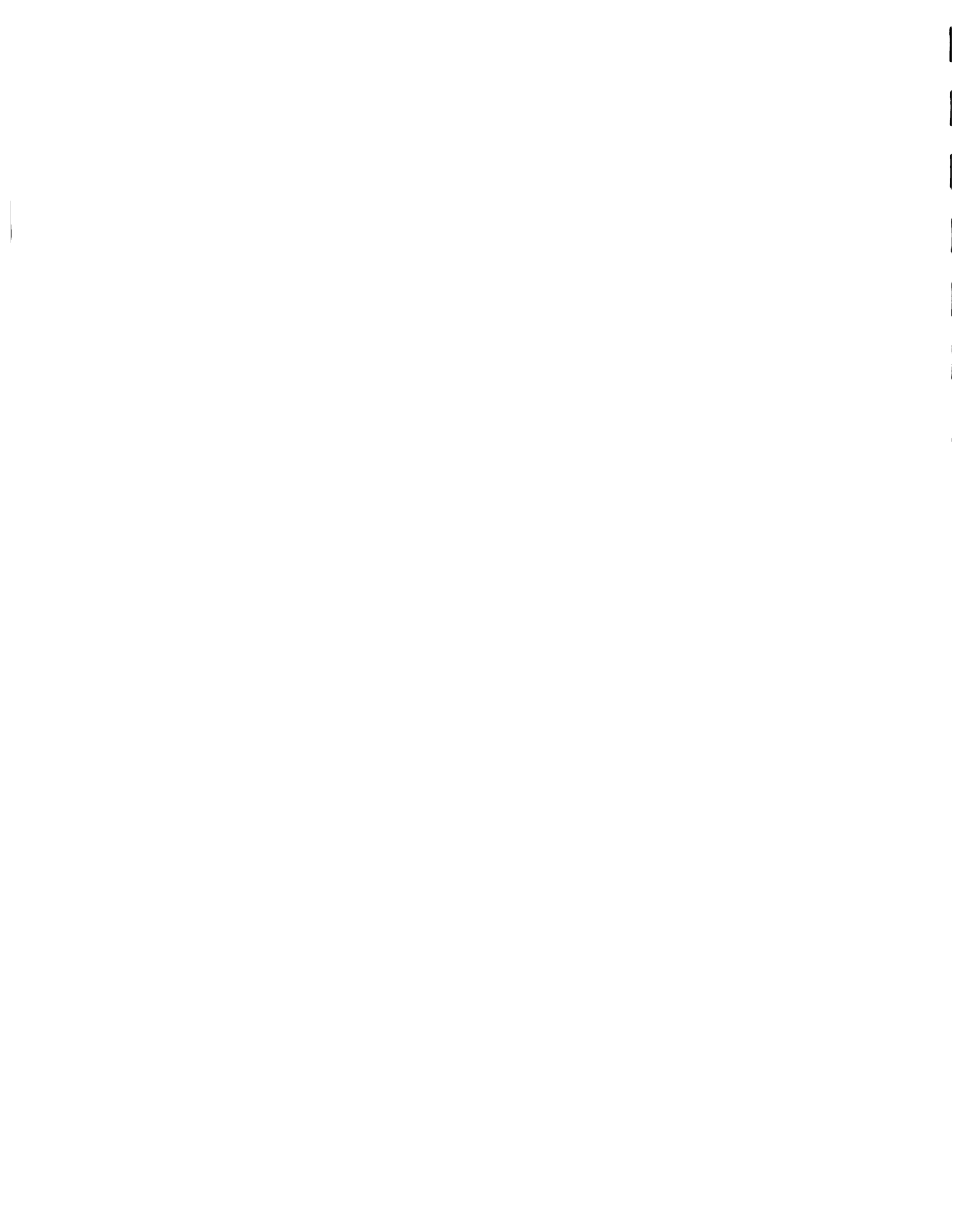
The response to the meat processing industry, particularly, pork and chicken, is also poor, even though the primary product of poultry and pork is well developed. The main reasons are:-





- Investors, including the present producers of fresh pork are not convinced that they will get adequate protection in a domestic market.
  - The domestic market without the hotel segment is too small to ensure the viability of a plant. However, investors feel that it requires more than a sound marketing strategy to be assured of the hotel segment. It requires an effective policy instrument to ensure that the hotels which are mostly foreign managed, with their procurement offices located abroad, procure from local supplies.
  - The local cost of production is not competitive enough to enhance the competitiveness of meat processing.
- . Food processing for the domestic market is being promoted as an investment opportunity. A few small plants already exist on the island. They are however, stagnant been operating at less than 40% of capacity. For example, Sawyers, a leading producer has been performing at less than 20% of capacity mainly because the marketing and trading policy environments are unsuitable. The following examples illustrate:-
- The cost of locally produced agricultural raw materials are much higher than duty paid landed prices of comparable products.
  - The supply of local inputs are only available three (3) months per year.

FROM THE FOREGOING, IT CAN BE CONCLUDED THAT THE POLICY ENVIRONMENT RELATED TO MARKETING NEEDS TO BE IMPROVED TO (1) GIVE MORE EFFECTIVE PROTECTION IN THE DOMESTIC MARKET WHEN NECESSARY; (2) REPOSITION THE BAHAMAS SO THAT IT IS PERCEIVED TO BE A DIVERSIFIED ECONOMY WITH AGRICULTURE PLAYING A KEY ROLE; (3) GET THE HOTEL SEGMENT TO BECOME AN EASILY ACCESSIBLE SEGMENT OF THE LOCAL MARKET; (4) STIMULATE INVESTMENT AND GROWTH IN THE FOOD PROCESSING INDUSTRY.



## B. Market Information

Market information for local produce is very limited. The present information has three focuses. They are:-

- . Press announcements to buyers about products in stock. The announcement is usually untimely, in that by the time buyers get the news to respond, the products are spoilt and in other cases when the response is overwhelming and untimely there is not enough produce at the Produce Exchange or other outlets to satisfy demand.
  - It takes another week to receive the next shipment from the islands.
  - Hotels and supermarkets which usually make large purchases are unable to secure large volumes on a single order.
- . Weekly announcements of wholesale prices to the farmers are also untimely for the following reasons:-
  - Farmers need projected prices for the season based on analysis of projected production for the islands. This will help them to determine the best mix of crops in order to avoid over-supplying and consequently depressed prices.
  - Supermarkets and other retailers need more advanced information on supply and prices so that they could develop more effective marketing and promotional programs for locally produced fruits and vegetables.
- . The Ministry of Agriculture or the Produce Exchange does have the institutional capacity to execute an adequate market information service.
  - They do not have the requisite organizational structure to administer primary data collection.
  - The field personnel, mostly extension officers and agricultural superintendents, are not trained to conduct agricultural surveys



- The survey instruments being used are not designed to provide important decision oriented data such as changes in volume of output, percentage of marketable products, farmers' price expectations, marketing arrangements and the variety of each product.
- The Ministry does not have the requisite hardware to process data.
- . No information services are available to exporters, or to give potential exporters information about market opportunities. The major exporter of fruits has been doing so successfully because it has a marketing company operating in the market place, the U.S.A, medium and small scale farmers cannot afford a presence in the market place, therefore, they will not be able to penetrate the export opportunities even in times when markets have domestic supply in excessive.

THIS BAHAMAS PROJECT DOCUMENT WILL OUTLINE A SPECIFIC MARKET INFORMATION SYSTEM WHICH MUST BE DEVELOPED AND EXECUTED AS A COMPONENT OF THE MARKETING SUPPORT SERVICES TO THE BAHAMIAN AGRICULTURAL SECTOR.



C. Role of the Private and Public Sectors

There are many private and public sector players engaged in various stages of the production and distribution network of agricultural produce as summarized below.

<u>ACTIVITIES</u>	<u>PRIVATE SECTOR PLAYERS</u>	<u>PUBLIC SECTOR PLAYERS</u>
Policies formation	None	Dept. of Agriculture
Policy execution		BAIC
		The Market Dev. C'tee
Investment Promotion		BAIC
Production	Farmers	
Trucking	Farmers	Produce Exchange
Shipping	Mail boats	
	Other Private Vessels	
Distribution	Farmers	Potters' Cay Produce Exchange
	Supermarkets	Freeport Produce Exchange
	Vendors	
	Brokers	
	Grocery Shops	Kemp Road Outlet
	Wholesale	Blue Hill Outlet

The Bahamian public sector marketing support activities are concentrated in the distribution activities relating to locally produced fresh foods. The Produce Exchange is the agency responsible for coordinating the public sector marketing activities. The quantitative features of its role are highlighted as follows:-

- . Its annual sales of approximately \$2 million represent:-
  - only 1.4% of the \$138 million food trade
  - only 12% of the \$16.6 million fresh food market segment of the food trade.
  - 44% of the estimated \$4.5 million locally supplied fresh food trade.
  - almost 7% of the total \$29 million locally supplied food trade.
  
- . The public sector, through its Produce Exchange has been playing a decreasing role in the locally supplied fresh food trade.





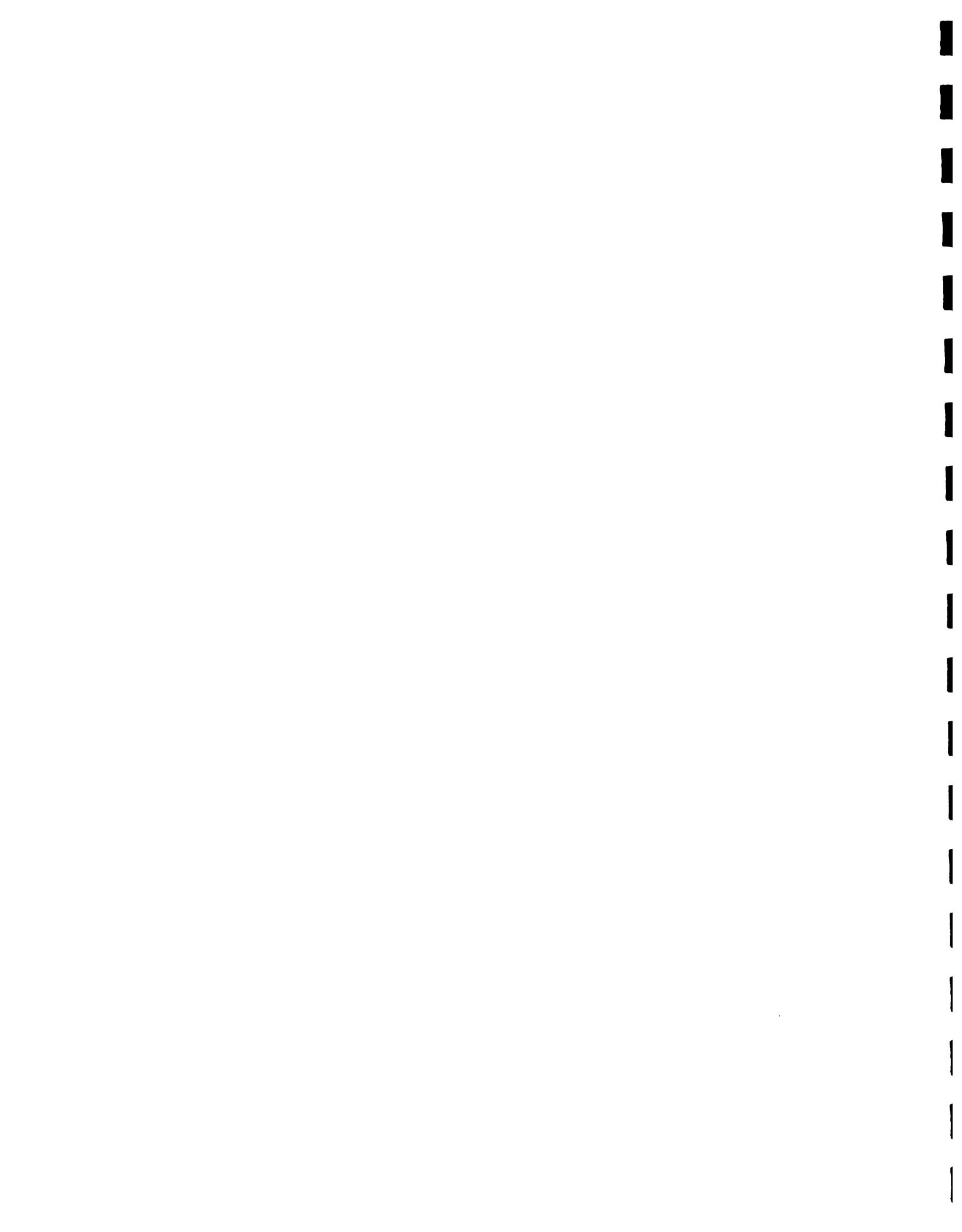
- The Department of Agriculture estimated that the Exchange up to 5 years ago accounted for about 70% of the locally supplied fresh foods traded while the consultant now estimates it to be 44%.
- In 1984 the Produce Exchange purchased 5,117 tons of produce. Between 1984 and 1987 it purchases between 3,905 and 4,928 tons annually.

The Produce Exchange plays an overall insignificant and declining role in the food trade mainly because:

- . Its focus is on locally produced fruits and vegetables which account for only 12% of the fresh food market.
- . As farmers graduate to high scales of production they establish collaborative arrangements with private sector distribution such as hotels, restaurants, supermarkets, wholesales and vendors. Consequently, they reduce their dependence on the packing house and Produce Exchange.
- . It does not have the requisite, physical or managerial capabilities to provide satisfactory services to the target farmers.
- . The level of domestic food output represents only 21% of the market size, therefore there has been no increasing pressure for a strong marketing support services network from the Bahamian agricultural sector.

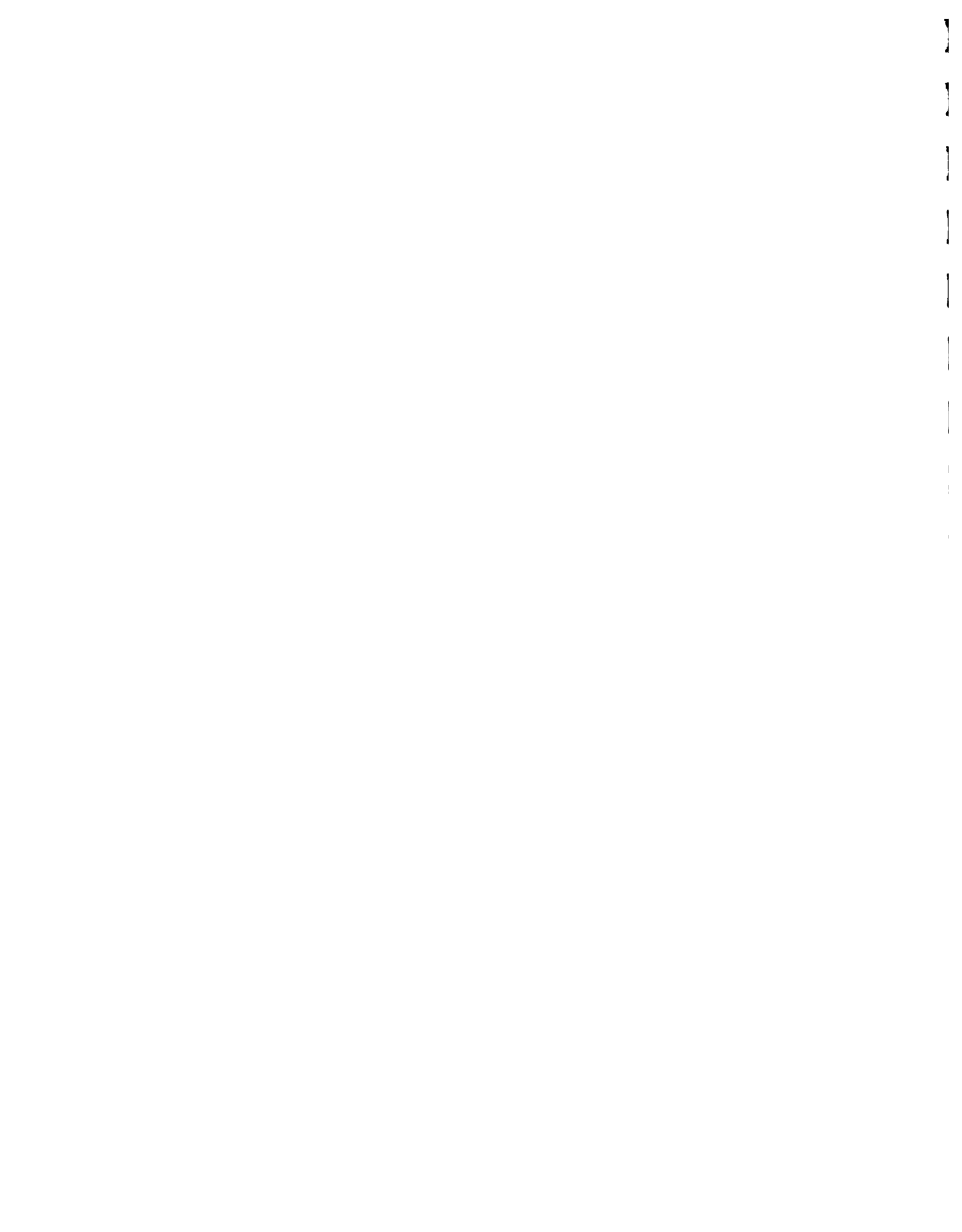
The high level of dependence on imported food (78%) has impacted negatively on the development of market services infrastructure in the Bahamian private and public sectors. The following illustrate:-

- . The private sector has not established much capabilities in domestic grading, transportation, packaging, or storage for agricultural produce. The main reasons are:-
  - Imported produce arrive graded and prepacked.
  - local transportation services concentrate on containerized trucking from the port to the distribution outlets.



- Storage is not required on a large scale because shipments arrive from abroad (Miami) twice per week in refrigerated containers.
- . Market information and promotional activities have not been privately instituted because of the following:
  - The hotels have their own purchasing agents in the overseas market place, their main sources of supply
  - Wholesalers, supermarkets and other importers can easily make adjustments without any major dislocations because of the proximity of their sources of supply (Miami) and the frequency of shipments.

AS THE BAHAMAS INITIATES NEW MEASURES TO EXPAND LOCAL PRODUCTION AND DIVERSIFY ITS AGRICULTURAL SECTOR, ITS MARKETING SERVICES INFRASTRUCTURE WILL HAVE TO BE BROADENED, WITH THE PRIVATE SECTOR WHICH ACCOUNTS FOR 99% OF THE FINAL DISTRIBUTION OF ALL FOODS PLAYING AN INTEGRAL ROLE. THE GOVERNMENT'S INITIATIVE TO EXPAND THE INFRASTRUCTURE SHOULD THEREFORE BE ACCOMPANIED BY STRATEGIES DESIGNED TO INCORPORATE THE PRIVATE SECTOR IN THE MANAGEMENT AND UTILIZATIONS OF SUCH INFRASTRUCTURE.



D. Transportation

Inter island transport services for produce are provided mainly by the "mail boats" with chartered aircraft and refrigerated containered cargo ships providing complimentary services. Twenty-three mail boats are under contract to transport mails to the islands at least once per week. The mail boats have capacities ranging from 62 to 350 tons. Each boat is required to provide North bound transportation services to farmers and packing houses shipping their agricultural produce to the produce exchange in Nassau. Table-1 which follows, list the names of the boats, their respective haulage capacities and the island that they serve.

TABLE - 1 MAIL BOATS SERVING THE BAHAMIAN ISLANDS

BOAT NAME	TONNAGE	ISLANDS SERVED
1. M.V Current Pride	88	Eleuthera
2. M.V Gloria	94	Mangrove Cay
3. M.V Captain Moxey II	132	South Andros
4. M.V Windward Express	95	Acklins, Long Cay, Crooked Isl, Mayaguana
5. Marcello III	350	Grand Bahama
6. Miss Juanita	200	South Eleuthera
7. Big Yard Express	102	Mangrove Cay
8. M.V Day Break II	102	North Eleuthera
9. Grand Master	214	Exuma
10. M.V Champion II	90	Sandy Point, Mores Isl, BerryIsl, Abaco II
11. M.V Deborah K"	204	
12. M.V Central Andros Express	62	Central Andros
13. M.V Nay Dean	91	North Long Island
14. Nay Dean	146	North Long Island
15. M.V North Cat Island Special	98	North Cat
16. M.V Captain Dean V	80	N/A
17. M.V Harley & Charley	91	Central Eleuthera
18. M.V Lady Blanche	97	Exuma Cays
19. M.V Lady Eula	149	North Cat Island
20. Current Queen	79	Ragged Island
21. M.V Commonwealth	96	Crooked Isl, Acklins, Mayaguana
22. M.V Lisa J II	298	North Andros
23. M.V Bimini Mack	247	Bimini
<b>TOTAL</b>	<b>3,205</b>	



The boats enjoy exclusivity in provision of shipping services to the Produce Exchange and the packaging houses. The justifications for giving them a monopoly are:

- . It is uneconomical to return from the family islands with mail only
- . It is an informal condition for transporting the mail.

The boats are equipped to transport dry goods and a limited amount of frozen foods from Nassau to the Family Islands (South Bound). However, they are not properly equipped with chilling facilities to transport fresh fruits and vegetables. Consequently they are a main attribute to the high rate of spoilage (55%) between the packaging houses and the point of final sale in the Produce Exchange procurement and distribution network. Table - 2 illustrates the high levels of spoilage in the Produce Exchange Network.

**TABLE - 2 THE SPOILAGE RATE FOR DOMESTIC AGRICULTURAL PRODUCE HANDLED BY THE BAHAMAS PRODUCE EXCHANGE.**

January - May 1988

Month	Value of Purchase \$000	Value of Spoilage \$000	Percentage Spoil
January	223	185	83
February	159	76	48
March	132	126	95
April	161	43	27
May	245	77	31
<b>TOTAL</b>	<b>920</b>	<b>507</b>	<b>55%</b>

In addition to the spoilage caused by the poorly equipped mail boats, they are also a main source of congestion at the Potters Cay Wharf. Their loading and unloading technology is inefficient. Consequently:

- Unloading of fresh produce takes 4 - 6 hours
- This creates congestion and therefore makes the Produce Exchange an unattractive location for procuring fresh fruits and vegetables
- The long delays in off loading deteriorate the quality of produce while they are held in the hot storage compartment of the boats





- The Freeport Exchange is a subsidiary institution of the Potters' Cay produce exchange. It receives produce from Potters' Cay exchange and distributes it to wholesalers, retailers and households in Grand Bahama.
- Supermarkets and vendors buy produce from brokers, the Produce Exchange or from farmers, packages the produce and then retail it to households, hotels and restaurants.
- The farmers' market which is held once per week wholesales and retails their own fresh foods. There are only a few farmer's markets in the Bahamas.

There are three (3) organizations associated with policy/administration of the sector and marketing issues. They are:

- The Department of Agriculture which executes the following functions with respect to marketing: general accountability for the Produce Exchange and its packing houses, administration of exports of food, computation and dissemination of information, and financial support.
- The Market Development Committee which has membership from the Ministry of Agriculture, and The Bahamas Agricultural and Industrial Corporation (B.A.I.C) functions as a price setting market contact and promotional body.
- The B.A.I.C is a quasi government investment promotion agency. It makes its offices and one of its senior officers available to coordinate the work of the Market Development Committee.

Exhibit - 1 which follows schematically sets out the distribution network for Bahamian produced for fresh foods in the Bahamas market.



- . The inappropriate loading equipment on the boats sometimes destroys the containers and their contents (the produce)

INVESTMENTS IN COOLING FACILITIES SHOULD THEREFORE BE A MANDATORY REQUIREMENT FOR CONTRACTING WITH GOVERNMENT, TO PROVIDE TRANSPORT SERVICES TO THE AGRICULTURAL BASED ISLANDS. CREDIT FACILITIES WILL ALSO HAVE TO BE MADE AVAILABLE TO THE BOATS SERVING THE AGRICULTURAL ISLANDS SO THAT THEY COULD TRANSPORT FRESH PRODUCE IN BETTER CONDITIONS.

#### E. The Institutional Framework for Distribution

There are twelve (12) players engaged in the distribution process policy making and administration in the Bahamian fresh food sector. They are:-

- . The ones in the distribution process are:
  - The farmers who are producers/distributors.
  - Truckers who are private contractors providing services to the farming community.
  - Packing houses which are government owned depot/purchasing stations strategically located among the islands. They grade and purchase farmers produce and then ship it to the Produce Exchange in Nassau for distribution mainly to the Nassau based market and a limited amount to the Freeport Exchange.
  - The mail boats, which have capacities of 62-350 tons transport the produce from the packing houses to the Produce Exchange in Nassau.
  - Potters' Cay produce exchange located in Nassau. Its main role is to store, promote and sell the produce to bakers, wholesalers, retailers, institutions, and households.
  - Kemp Road outlet is a subsidiary organization of the Potters' Cay Exchange. It retails fresh produce to end users.

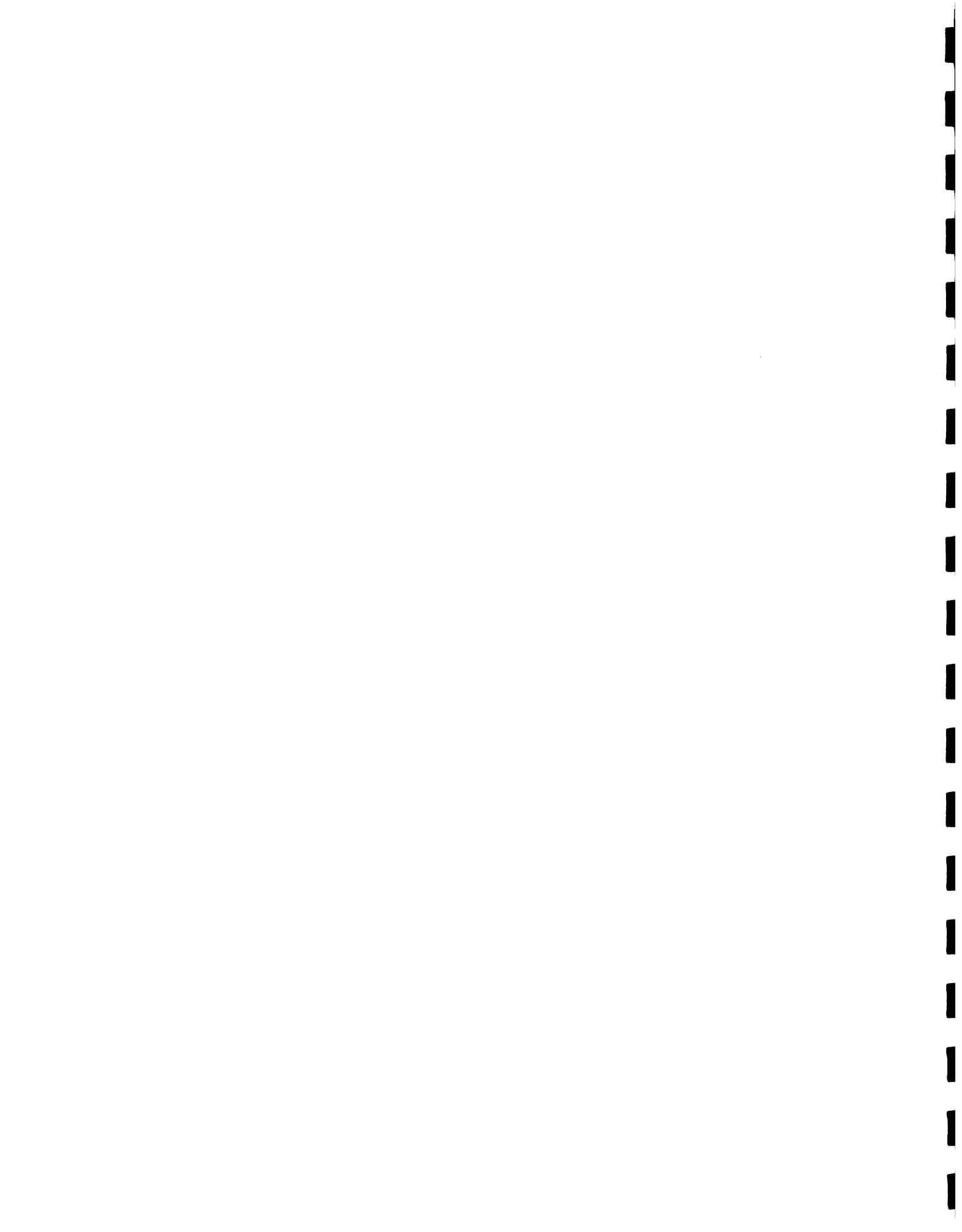
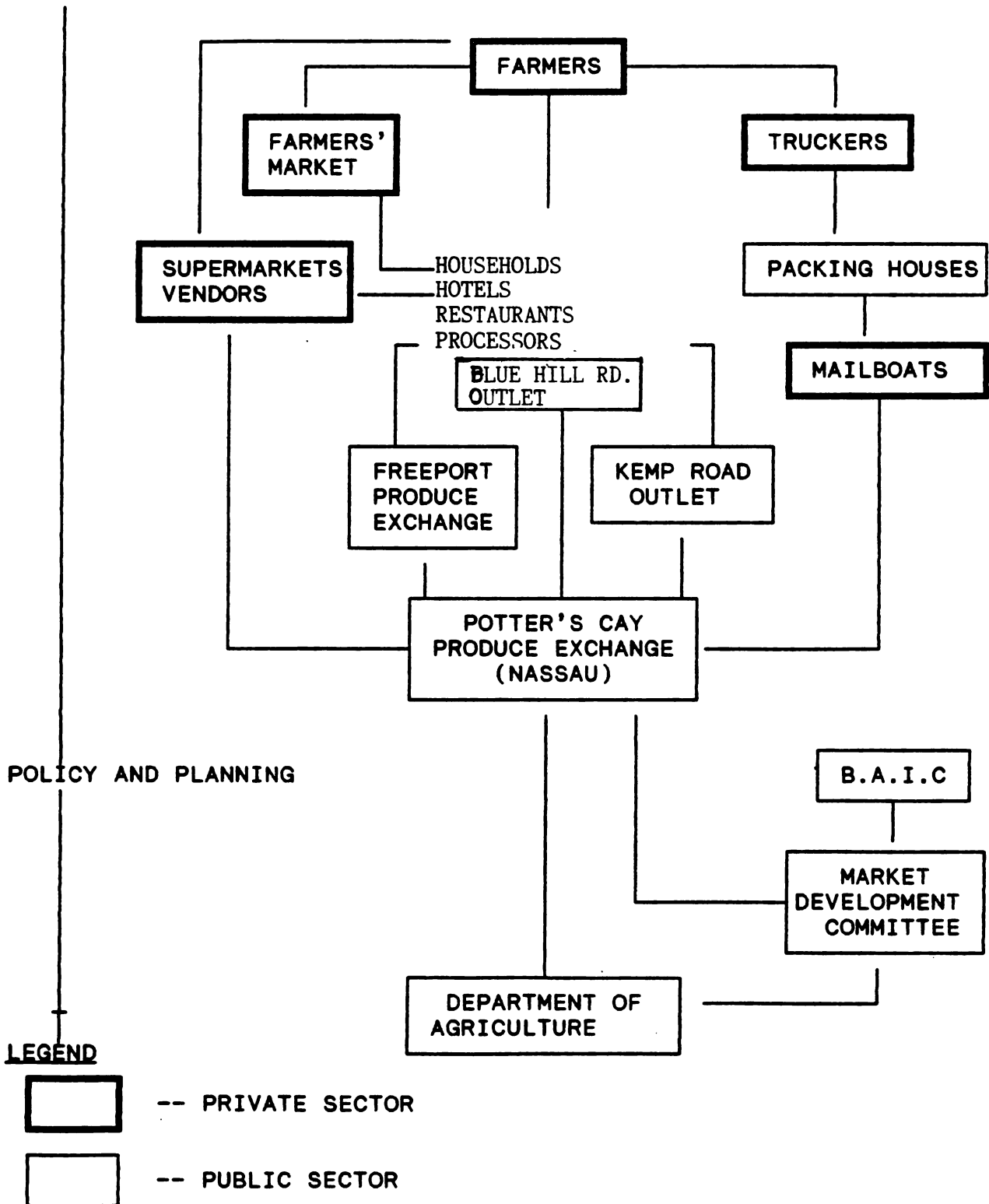
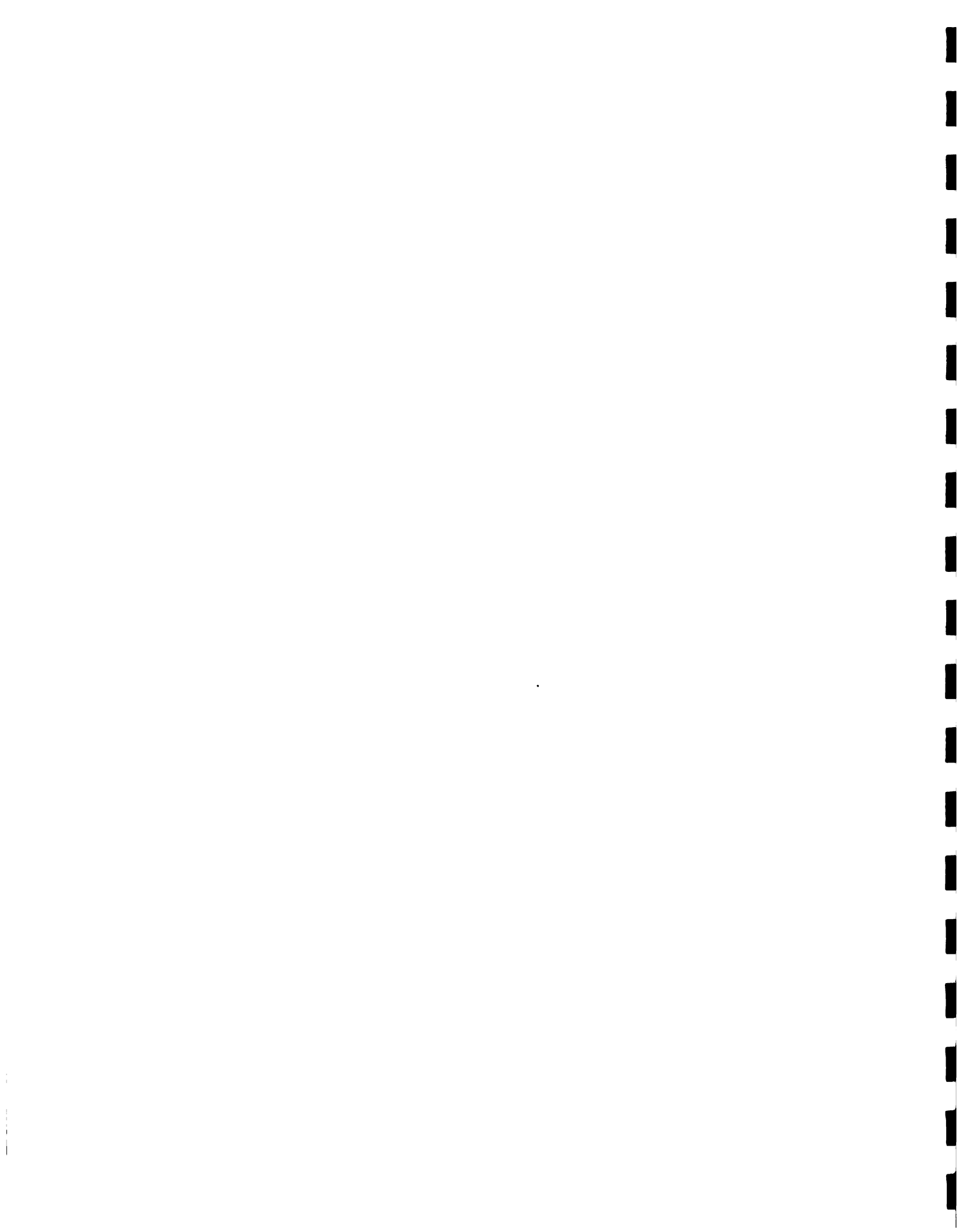


EXHIBIT - 1

THE BAHAMS: INSTITUTIONAL NETWORK FOR DISTRIBUTING THE MAIN LOCALLY PRODUCED FRESH FOODS IN THE BAHAMIAN MARKET





F. The Produce Exchange

The Produce Exchange and its network of packing houses play an important but decreasing role in the distribution of Bahamian product in the local market. They jointly account for moving about \$2.0 million or 44% of the \$4.67 million worth local produce. However five years ago they accounted for about 70%.

The Produce Exchange, and its network of 7 packaging houses, and two retail outlets are installed with repairing and cooling facilities capable of handling about 70 tons per day or 14,000 tons per year. Table - 3 which follows, sets out the physical details of the Produce Exchange and, the package houses and outlets.

TABLE - 3 THE BAHAMAS: DETAILS ON PHYSICAL FACILITIES AT THE PRODUCE EXCHANGE, PACKING HOUSES AND OUTLETS

<u>LOCAL/NAME OF FACILITY</u>	<u>SIZE OF BUILDING SQ. FT</u>	<u>NUMBER OF COOLING UNITS INSTALLED</u>	<u>CU. FT</u>	<u>DAILY COOLING CAPACITY (TONS)</u>
Produce Exchange	13,000	8	47,000	60
Produce Exchange		2	11,280	12
Kemproad Outlet	1,920	1		
Freeport Exchange	4,000	3	11,800	13
North Andros Packing House	4,000	1	2,880	1.5
North Eleuthera	2,400	1	2,880	1.5
Hatchet Eleuthera	2,400	1	2,880	1.5
Green Castle Eleuthera	2,400	1	1,980	1.0
Smith Bay Cat Island	2,400	1	2,800	1.5
Mt Thompson	2,400	1	2,800	1.5
North Long Island	2,400	1	2,880	1.5





The Produce Exchange network however handles only about 5,000 tons or 36% of its established capacity. The reasons for the inefficient utilization are:

- . The frequent break down or non functioning of equipment for long periods. For example:
  - None of the grading machines works
  - None of the cool storage rooms at the packing houses works.
  - Over 50% of the cool storage rooms at the packaging houses are out of order.
- . Harvesting is highly concentrated in about 5 months of the year consequently very little produce is sent through the Exchange for about 7 months.



**TABLE - 4 THE BAHAMAS: COMMODITIES TRADED AT THE PRODUCE EXCHANGE  
1988**

ITEM	VALUE \$000	PERCENTAGE OF PURCHASE
Pineapple	190.7	9.4
Mango-improved	123.3	6.1
Turpentine mango	8.8	0.4
Dry-bean	4.7	0.2
Okra	27.9	1.4
Coconut	46.4	2.3
Hot pepper	79.6	3.9
Goat pepper	14.5	0.7
Key limes	26.2	1.3
Dry Corn	176.8	8.7
Pumpkin	8.3	0.4
Thyme	9.8	0.5
Cabbage	110.9	5.5
Banana	266.5	13.1
Peas	13.3	0.7
Cucumber	12.1	0.6
Grapefruit	20.7	0.1
Persian limes	82.9	4.1
Juice orange	89.0	4.4
Onion	99.8	4.9
Irish potato	80.2	3.9
Tangerines	3.2	0.2
Sweet pepper	344.8	2.0
Tomatoes	100.1	17.0
Watermelon	53.3	2.6
<b>TOTAL</b>	<b>\$000 2,034.0</b>	<b>100.0</b>

Source: The Produce Exchange

The Exchange's three outlets, Kemp Road, Blue Hill Road outlets, and the Free Port Produce Exchange are not providing effective marketing services due to the following:

- . The Kemp Road and Blue Hill Road outlets are perceived as inadequate service outlets
- They are not strategically located in close proximity to shopping complexes to offer convenience and appeal to customers



- They do not offer a wide range of products
- The availability of products is unreliable
- . The Freeport Exchange is not playing an effective role in distributing local produce even though it is situated in a large and growing market. The main reasons are:
  - The Potters Cay Exchange its role supplier does not supply a wide range of produce on a regular basis
  - The outlet does not purchase from its large farming community in the Grand Bahama because it is designated as a free zone operation.

The Produce Exchange network has been operating at a significant loss. Its minimum costs represent 1.96 times its income as set out in Table - 5. Consequently it has to continue to depend on government subvention to remain in business.

**TABLE - 5**

<u>ITEM</u>	<u>AMOUNT</u> <u>\$000</u>
1. <u>INCOME</u> determined as follows	<u>998</u>
i. Purchases	1,140
ii. assuming 30% spoilage	342
iii. net value of purchase (i-ii)	798
iv. mark-up in net value of purchase 25%	200
v. value of sale (+iii+iv)	<u>998</u>
2. <u>MINIMUM COST</u>	<u>1,952</u>
i. cost of fruits and vegetable purchases	1,140
ii. packaging material	55
iii. equipment repairs	83
iv. miscellaneous supplies	12
v. transportation	15
vi. wages/salaries at Packing Houses	376
vii. wages/salaries at Produce Exchange Nassau	271
3. <u>GROSS OPERATING PROFIT/(LOSS) (1 - 2)</u>	<u>(\$954)</u>

7

Sources (a) The Market Development Committee  
(b) The Department of Agriculture.



There are four (4) key reasons for the large losses in the Produce Exchange marketing network. They are:-

- . The through-put of produce is generally low, and has been declining over the past five (5) years. It has declined from 5,117 tons in 1984 to 3,905 tons in 1988. Table - 6 which follows illustrates.

**TABLE - 6** VOLUME OF PRODUCE PURCHASED BY THE PRODUCE EXCHANGE 1984 - 1988 IN TONS

YEAR	TONS	GROWTH RATE
1984	5,117	- 3.5
1985	4,938	-14.0
1986	4,252	+ 4.9
1987	3,905	-12.5

Source Agricultural Sector Report 1988 annex table - 1

- . The network is overstaffed. For example:
  - There are fifty-two (52) employees at the Nassau based Produce Exchange while only about 34 will be needed for an expanded facility.
  - There are eighty (80) employees in the packing houses. A distribution organization with enterprises less than \$2 million is overstaffed by any standard if it employs 132 persons.
- . Even though the network is overstaffed, it has no one responsible for aggressive marketing, market development or promotions. This is rather unusual for a marketing organization. The main categories of personnel on staff are:
  - Manager
  - Senior Agricultural Superintendents
  - Assistant Managers
  - Assistant Agricultural Officers
  - Senior Attendants

.



- Chief Clerk
- Filing Clerk
- Senior Laboratory Technician
- Laborers.

- . The level of spoilage is the fourth major force behind the large losses of the Produce Exchange. It is over fifty (50%) percent.

A MAJOR COMPONENT OF THIS PROJECT WILL HAVE TO BE A REORGANIZATION OF THE PRODUCE EXCHANGE NETWORK, AND STREAM LINING OF THE ADMINISTRATION TO ENSURE THAT IT OPERATES LIKE A MARKETING ORGANIZATION, AND PRACTICES SOUND BUSINESS PRINCIPLES, ALSO HAVE TO BROADEN ITS SCOPE TO INCLUDE EXPORT MARKETING.

The institutional framework for such an organization could consider including:

- . Private sector participation in:
  - Contract grading and packing for the private sector
  - Export marketing services
  - Rental of storage space

#### G. Socio Economic Framework

The socio economic standards vary markedly among the Bahamian farmers, for example; there are no available data available to provide the most accurate comparison, but the following are generally major considerations.

- . The socio economic characteristics of the farmers in the Northern islands are generally superior to those in the South. For example:
  - The average income of farmers in the North is much higher than those in the South.
  - The marketing related infrastructures such as shipping storage, and extension services for northern farmers are superior to those in the South.

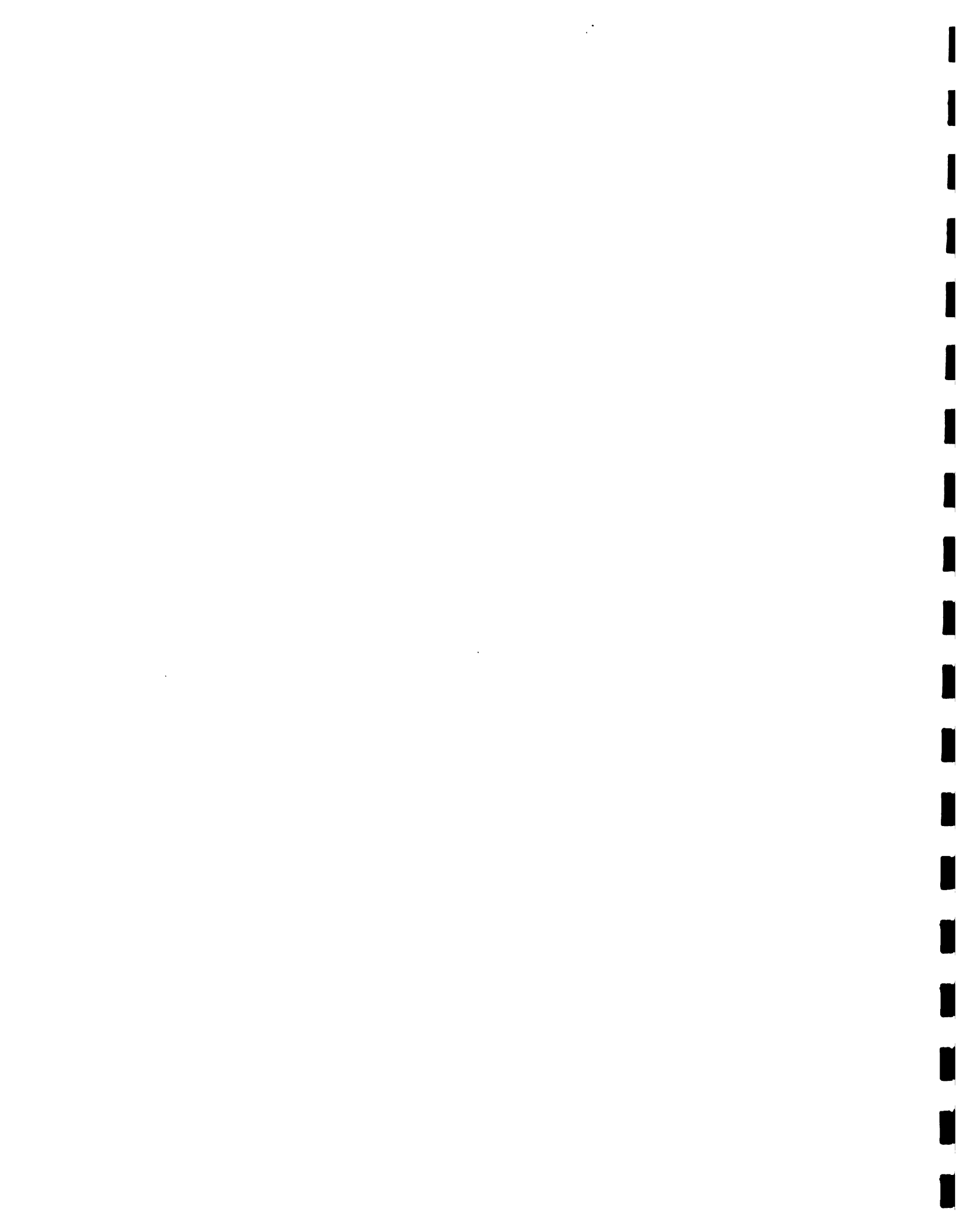


- The Northern islands have more diversified economies especially in New Providence, Grand Bahama, and Abaco where the economic activities include tourism, agriculture, and manufacturing. The level of income is therefore under pressure to increase because there are many more employers competing for the limited supply of labour.
- . Farmers from Southern islands are generally much smaller than their Northern counterparts. They therefore need assistance in the following areas.
  - They will need free marketing assistance services
  - They should continue to benefit from the Produce Exchange in terms of preferential treatment for their products.
- . The income levels of Southern farmers are much lower than their Northern counterparts and in many cases lower than the average national levels. They will therefore require:
  - Price support mechanisms for their products
  - Guaranteed markets for their produce

ONE MAIN CHALLENGE OF THE PROJECT IS TO MAKE A CONTRIBUTION TOWARDS IMPROVING THE ECONOMIC STANDARDS OF THE SOUTHERN ISLANDS SO THAT THE ECONOMIC GAPS BETWEEN THE NORTH AND THE SOUTH COULD BE NARROWED.

There are several strategies that could be built into the project to enhance the realization of this socio economic goal. They include:

- . Marketing related strategies.
  - The Produce Exchange could give southern farmers more favorable prices
  - Southern islands could be given preferential market treatments or protected market status for the produce in which they have their best production capabilities.
- . Production related strategies.



- the project could introduce new extension services activities to increase their production.
- they could be given higher subsidies on inputs such as fertilizers, chemicals, and transportation services.

THE DESIGN FOR THE MARKETING COMPONENTS WILL GIVE DUE CONSIDERATIONS TO THE NEED TO IMPROVE THE SOCIO ECONOMIC STATUS OF THE SOUTHERN ISLANDS.

#### H. Other developments

This project is quite timely. It comes at a time when:

- . Imported food is taking over an increasing share of the domestic market.
- . Florida, USA, is importing an increasing amount of fresh foods especially from Chile, Costa Rica, Mexico, Dominican Republic, and Jamaica.

The products that are being imported in increasing amounts in Florida include most of those in which the Bahamas enjoys a good production environment. They include:

citrus	squash
melons	peas
mangoes	celery
pineapples	beans
cucumbers	onions

THE MARKETING COMPONENTS OF THIS PROJECT WILL BE DESIGNED TO STRENGTHEN THE MARKETING CAPABILITY IN THE AGRICULTURAL SECTOR TO ENHANCE ITS ABILITY TO SATISFY A MUCH GREATER SHARE OF THE DOMESTIC MARKET AND TO PROMOTE EXPORT MARKETING ESPECIALLY TO FLORIDA, U.S.A.



Annex - 1: THE BAHAMAS AGRICULTURAL SECTOR: CRITICAL MARKET SERVICES  
RELATED ISSUES

ISSUES	IMPLICATIONS	RECOMMENDED ACTION STRATEGIES
<p>i. The cost effectiveness of the Produce Exchange and the Packing Houses</p>		
<p>- Grading is not practiced at the packing houses because the machines are out of order</p>	<p>Grading and rejections take place at all stages of the services, from packing houses to retail outlets</p>	<p>Upgrading of the packing houses</p>
<p>- Packing materials are usually in short supply consequently, produce are regularly shipped inappropriately packaged</p>	<p>Deterioration of produce quality by as much as 15% during transit</p>	<p>BAIC should promote the establishment of a packing plant in its industrialization program</p>
<p>- Packing is not batched or serialized to identify the origin of the packing house and the farmer</p>	<p>No data bank exists to support corrective actions for quality control at packing houses or the farm levels</p>	<p>Introduce batching &amp; farmer's identification to enhance effective management of quality from farm to market</p>
<p>- Storage (especially cold storage) is inadequate in packing houses and the Produce Exchange to match the present and projected through-put</p>	<p>.It prevents proper inventory management .It increases the level of spoilage</p>	<p>Expand the storage space .Upgrade and replace cooling facilities</p>
<p>- The packing houses need to provide more value added services to meet the growing demand of farmers as they expand production and market through private sector channels which do not have storage,grading or packing facilities in the field</p>	<p>.The packing houses will be avoided by farmers as they graduate to the private marketing channels</p>	<p>.Expand the range of services to larger farmers to include: -rental of storage space -grading services for a fee -packing services for a fee</p>
	<p>.The cost-effectiveness of the packing houses will deteriorate if they continue to provide only the present range of services or serve small farmers only</p>	





Annex - 1: (CONT'D) THE BAHAMAS AGRICULTURAL SECTOR: CRITICAL MARKET SERVICES RELATED ISSUES

ISSUES	IMPLICATIONS	RECOMMENDED ACTIONS STRATEGIES
<p>Management is weak in accountability, adherence to sound business practices, innovativeness to marketing, leadership, and deployment of personnel. This is due mainly to excessive Central Government bureaucracy and lack of performance management systems at all levels</p>	<p>.The services are poor            .The image of The Produce Exchange in the market place is negative            . The operating process is disorganized</p>	<p>.The future management of the Produce Exchange and its packing houses should be contracted to a competent management services company or a firm already engaged in the distribution of foods</p>
<p>- The Produce Exchange's operating cost is estimated at about 1.96 times its revenue mainly due to its narrow range of services, weak management, and institutional framework</p>	<p>.The organization is unlikely to become financially self-sufficient            .It requires continuous financial support from Central Government</p>	<p>.Broaden its scope of services and integrate it as an integral part of market support services to the private sector which accounts for over 90% of the distribution of foods            -the services should include rental of storage space to large farmers and distributors            -sale of packing services            -rental of retail stalls for vendors            -sale of administrative support services to produce brokers            .Continue to offer a full range of marketing services to small farmers those from economically disadvantaged islands            .Operate the enterprise as an autonomous body with its main focus being on facilitation on the same principles as the BAIC factory program or the Bahamas Hotel Corporation</p>



Annex - 1: (CONT'D) THE BAHAMAS AGRICULTURAL SECTOR: CRITICAL MARKET SERVICES RELATED ISSUES

ISSUES	IMPLICATIONS	RECOMMENDED ACTIONS STRATEGIES
<p>ii. The Produce Exchange is not effective in penetrating the local market. There is need to give its distributive role a greater presence in the business community</p>	<p>. Significant and fast growing markets such as Grand Bahama and Abaco are not adequately serviced</p>	<p>. Establish decentralized distribution units in these locations            . Encourage inter-island transportation of produce            . Relocate the Produce Exchange to the deeper business community so it could provide the wider range of services recommended, and also a more effective distribution role especially for            -small farmers            -the farming communities in the economically disadvantaged islands</p>
<p>iii. The Productivity of the loading and unloading process at Potters Cay is low due to            -the inefficiency of the loading and unloading technology of the boats            -the congestion on the port caused by other activities</p>	<p>. Many large communities in Nassau purchase foreign competing produce at Supermarkets</p> <p>. The quality of the produce deteriorates after long delays            . The congestion discourages many wholesalers and retailers from doing business with the Produce Exchange</p>	<p>. Establish two vendors' markets at strategic locations in Nassau, close Kemp Road's outlet            . Relocate the Produce Exchange            . Operate the existing building as a temporary warehouse</p>
<p>iv. The mail boat shipping services are qualitatively poor            -they lack adequate cooling facility            -the cargo compartments are poorly laid out</p>	<p>. About 15% of the produce spoil during transit            . The turn-around time of the boats on the congested part is too long            . Packages are damaged during loading and unloading</p>	<p>. A line of credit should be established to upgrade the boats            . Upgrading to improve the cool storage facility should be a mandatory condition for the licensing and contracting the boats as designated "mail boats"</p>



(cont')

Annex - 1: THE BAHAMAS AGRICULTURAL SECTOR: CRITICAL MARKET SERVICES  
RELATED ISSUES

ISSUES ACTIONS	IMPLICATIONS	RECOMMENDED STRATEGIES
The boats are generally regarded as an indispensable institution in the Bahamas even though they are inefficient	for islands which must use mail boats serving island where the boats represent the sale source of technically viable source of transportation.	
. Explore		Do further investigation into technical and financial viability of owning/operating a barge for selected islands versus chartering containerized transportation services
-the accountability of the mail boat owner for produce in their custody	.Loss of produce is borne by the Produce Exchange	.Make accountability and risk taking for produce in transit a condition of the service contract with the boat owners
v. Very little useful market intelligence is available from the stage of Production intention to harvesting to shipping	.Effective marketing strategies marketing actions cannot be initiated on a timely basis consequently - there is poor supply management - pre-selling is not widely practiced	.Install market information capability in the proposed "new Produce Exchange" with technical support from the:- - Extension Services - the statistical unit in the Dept. of Agriculture
vi. There are no institutional capabilities to provide export marketing services to the sector	.Many Bahamian farmers in the Northern Islands are producing exportable produce but cannot afford to undertake their own export marketing services	.Strengthen the institutional capability of BAIC and broaden its role to include Export Promotional Services



### 3. PRESENT MARKET SITUATION

This section focuses on six topics: domestic market size, product mix, grade requirement, social demand pattern, local supply pattern, domestic market opportunities, export market opportunities, Bahamian competitiveness and market opportunities. They are discussed in respective sub-sections as follows.

A. Market size The market for fresh foods, processed fruits and vegetables, meats, and dairy products which are the main focus of this project, is \$138 million with the meat subsector accounting for \$76 million or 55%. The industrial segmentation is as follows:

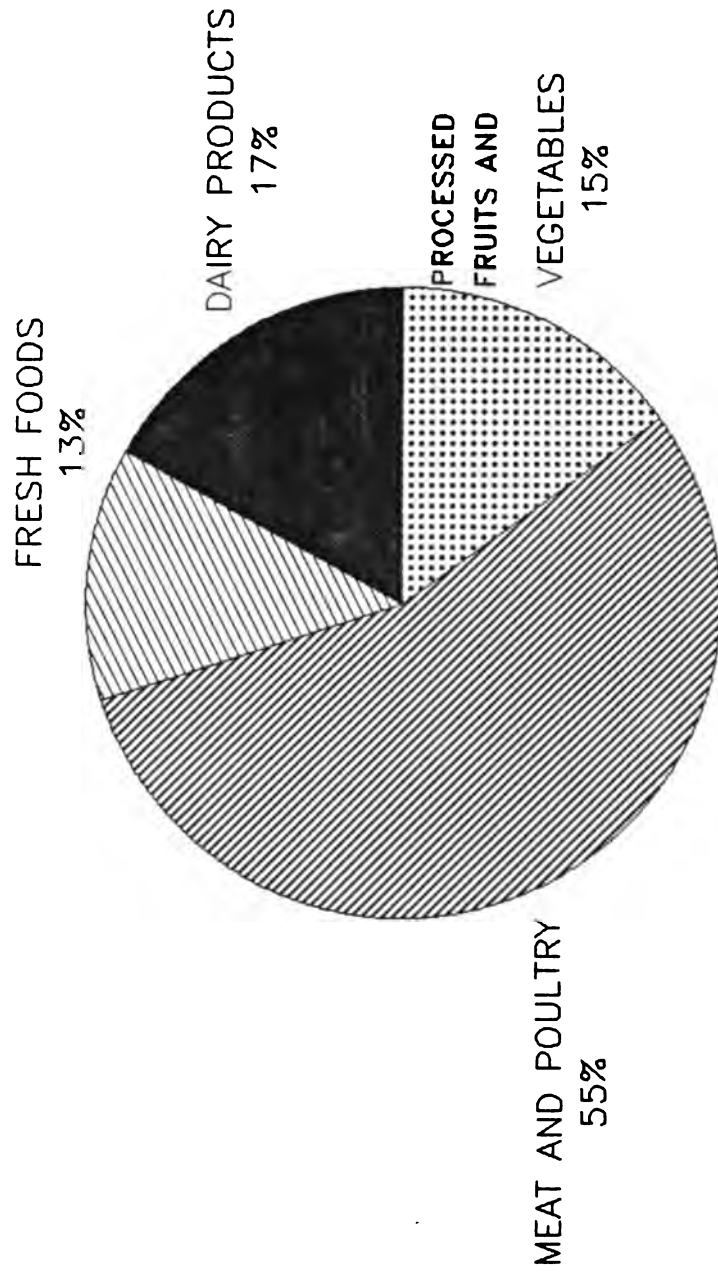
- . Fresh foods (mostly fruits and vegetables) - \$16.6 million
- . Processed fruits and vegetables - \$21.0 million
- . Meats and poultry - \$76.0 million
- . Dairy products - \$24.4 million

Exhibit - 2 and Table - 10 provide the details

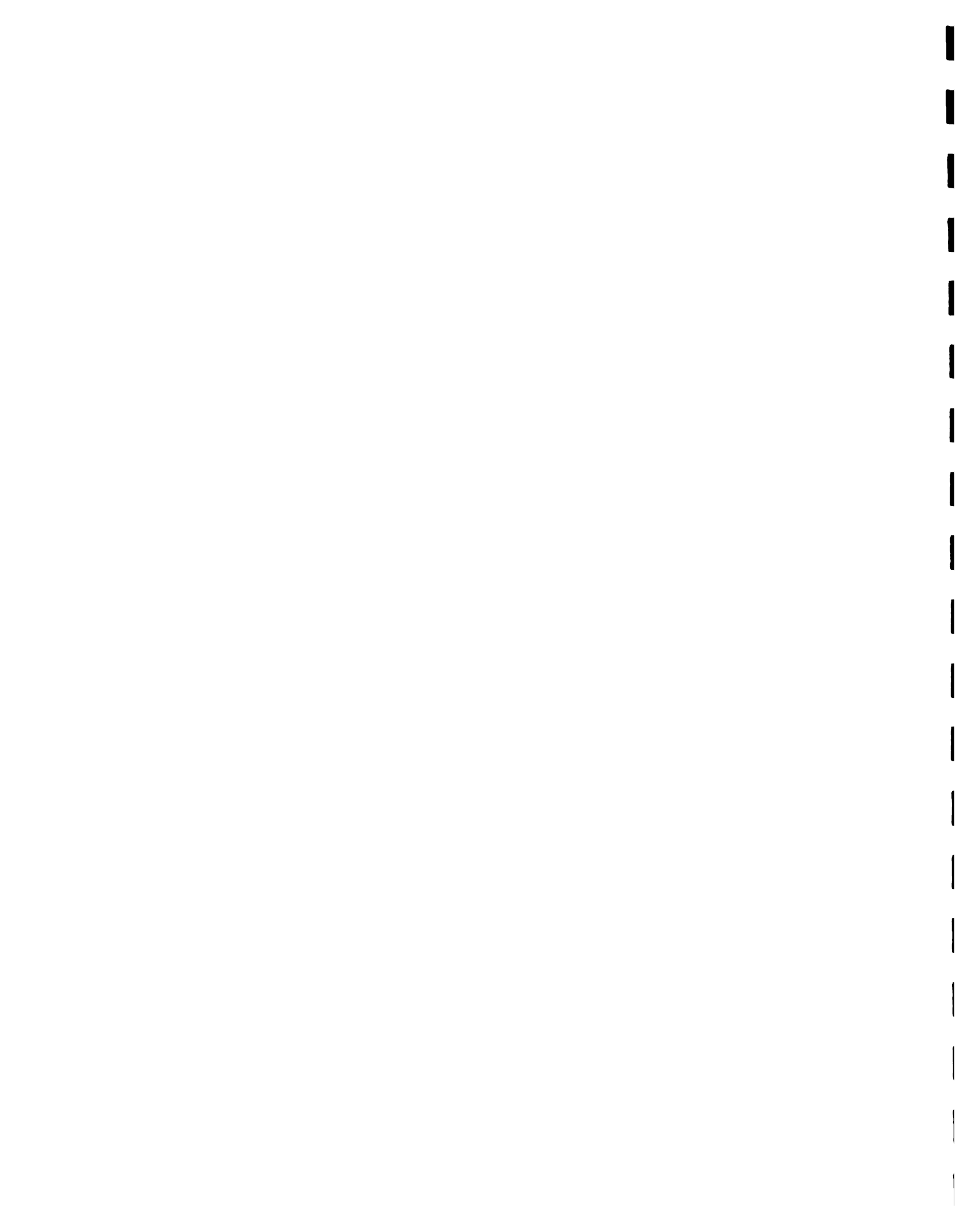




# THE BAHAMAS: ESTIMATED MARKET FOR SELECTED FOODS 1988



TOTAL = \$138 MILLION



No accurate data are available on the annual growth rate of the market. However, since the GDP has been growing at 11% annually in real terms for the past 5 years, the market for these commodities should be growing by at least 3.5% per annum assuming that about 33% of income is spent on food. There are three key driving forces behind the growth and stability of the market. They are:

- . Per capita income has been increasing by over 12% annually.
- . The tourism trade which targets high income tourists, has been growing at over 15% annually.
- . The economy has been growing at approximately 11% annually. This makes the Bahamas one of the fastest growing economies in the atmosphere.
- . The volume of imported foods has been growing at over 4% annually.



TABLE- 7     THE BAHAMAS:     MARKET SIZE FOR FRESH FOODS AND  
 SOURCES OF SUPPLY 1988  
 IN \$000

MAJOR ITEMS	UNITS	TOTAL MARKET	LOCAL SUPPLY	FOREIGN SUPPLY	ANNUAL VALUE \$000
Tomatoes	000 lbs	5,300	2,910	2,089	2,040
Cabbages	000 lbs	4,042	2,404	1,638	1,126
Sweet peppers	000 lbs	855	288	567	616
Onions	000 lbs	3,286	609	2,677	671
Lettuce	24ct c/s 000	77	3	74	1,301
Celery	30ct c/s 000	35	1	34	738
Cucumbers	000 lbs	345	213	132	185
Irish potatoes	000 lbs	9,892	1,393	8,499	1,307
Sweet potatoes	000 lbs	2,111	11	2,100	1,105
Peanuts	000 lbs	840	0	840	588
Peas	000 lbs	432	27	405	176
Okra	000 lbs	68	58	10	32
Bananas	000 lbs	7,980	1,280	6,700	1,680
Mangoes	000 bu	20	11	9	327
Grapefruit	000 4/5 bu	26	6	20	209
Oranges	000 4/5 bu	116	13	103	343
Limes	000 4/5 bu	17	16.9	0.10	279
Tangerines	000 4/5 bu	6	32	4	118
Avacadoes	000 each	293	18	275	22
Watermelons	000 lbs	889	772	117	180
Pineapples	000 doz	35	27	8	560
Sweet corn	000 c/s	15	-	15	198
Snap beans	000 c/s	11	-	11	229
Straw berries	12pt 000	36	-	36	1,103
Cauliflower	000 c/s	17	-	17	315
Brocolli	000 c/s	17	1	16	290
Carrots	000 c/s	32	Negligible	32	453
Honey dew	000 c/s	28	-	28	389
<b>TOTAL \$000</b>					<b>16,580</b>



TABLE- 8 THE BAHAMAS: ESTIMATED MARKET FOR MAJOR PROCESSED  
FRUITS AND VEGETABLES 1988

IN \$000

ITEM	TOTAL MARKET	IMPORTS	LOCAL PRODUCE	TOTAL MARKET	IMPORTS	LOCAL
Jams, Marmalade, Jellies, etc.	730	585	145	678	438	240
Fruit and Vegetable Juices	22,588	28,588		10,040	10,040	0
Frozen Vegetables	3,255	3,255		1,488	1,488	0
Dehydrated Vegetables	347	347		568	568	0
Miscellaneous Food Preparations	22,622	22,422	200	8,118	8,008	110
Tomato Sauce	69	57	12	61	31	30
<b>TOTAL \$000</b>	<b>55,611</b>	<b>55,254</b>	<b>357</b>	<b>20,953</b>	<b>20,573</b>	<b>380</b>

Sources: (a) Department of Statistics  
(b) Interview with local manufacturer  
(c) Mission Estimates





TABLE- 9 THE BAHAMAS:MARKET SIZE FOR MEATS, POULTRY  
AND SOURCES OF SUPPLY 1988

MAJOR ITEMS	UNITS	TOTAL MARKET	LOCAL SUPPLY	FOREIGN SUPPLY	MARKET ANNUAL VALUE \$000
Pork	000lb	9,385	300	9,085	10,248
Bacon and Ham	000lb	3,954	-	3,954	4,310
Sausage	000lb	5,056	-	5,056	6,675
Fresh or Chilled Beef	000lb	11,711	39	11,672	21,286
Sheep Mutton	000lb	3,333	5	3,329	3,735
Goat Mutton	000lb	358	5	353	283
Fresh Poultry	000lb	26,386	18,338	8,048	23,946
Eggs	000dz	5,341	5,194	147	5,535
TOTAL	\$000				76,018

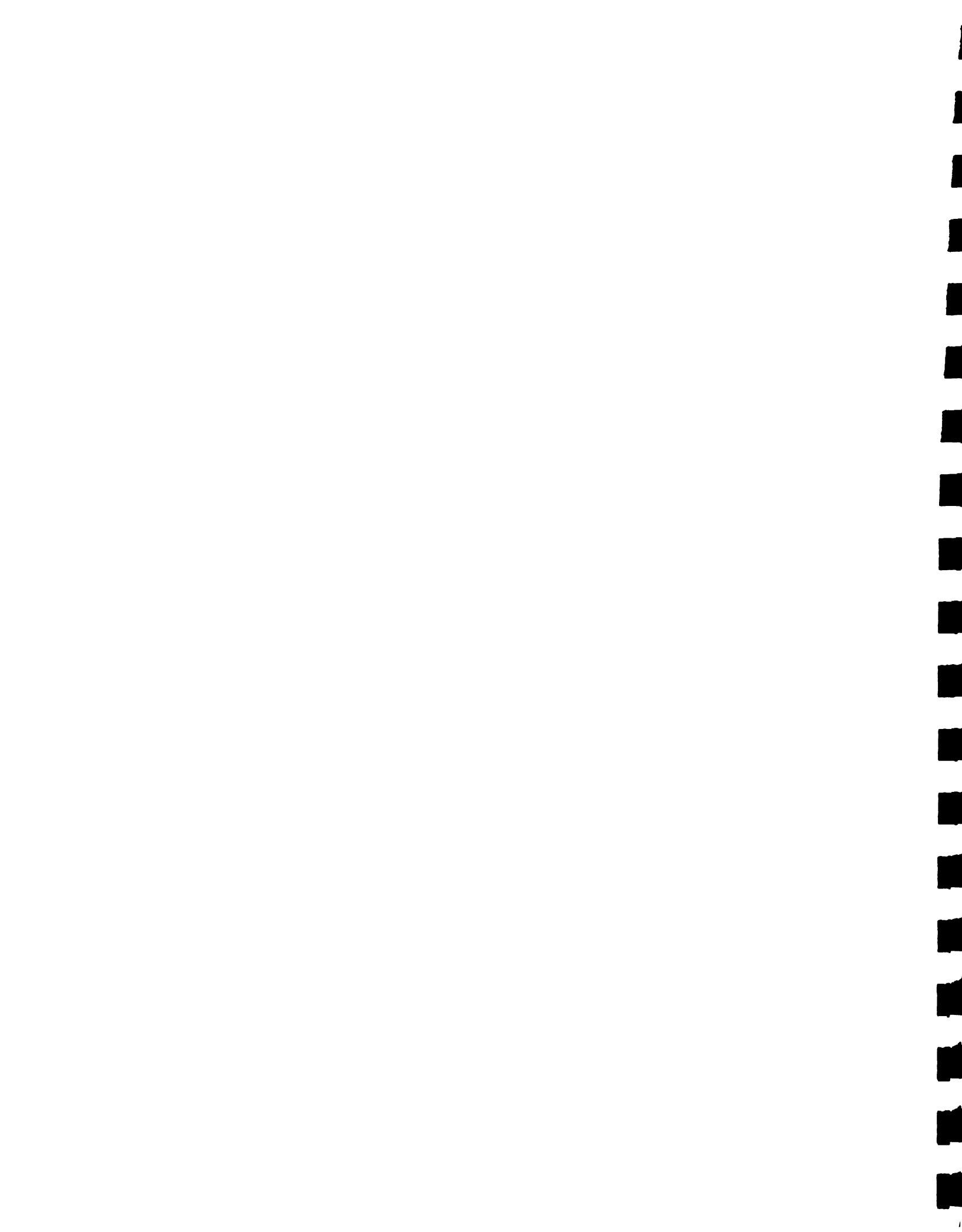


TABLE - 10 THE BAHAMAS: ESTIMATED MARKET FOR DAIRY PRODUCTS 1988 IN 000 LBS

MAJOR ITEMS	QUANTITY 000 LBS			VALUE \$000		
	TOTAL MARKET	IMPORTS	LOCAL PRODUCE	TOTAL MARKET	IMPORTS	LOCAL PRODUCE
Milk, Cream, Evap/Condensed	16,000	16,000	0	6,810	6,810	0
Milk Cream in solid	1,430	1,430	0	715	715	0
Fresh Milk	8,760	8,675	85	10,324	10,224	100
Butter	2,636	2,636	0	2,095	2,095	0
Cheese	3,476	3,476	0	4,407	4,407	0
TOTAL 000	32,302	32,217	negligible	24,251	24,251	100



## B. Product Mix

The fresh foods market which is valued at \$16.6 million comprises 28 key products with tomatoes, Irish potatoes, lettuce, cabbages, sweet potatoes and onions being the top six with the following market share in the fresh foods segments:-

- . Tomatoes 12%
- . Banana 10%
- . Irish potatoes 7.8%
- . Lettuce 7.8%
- . Cabbage 6.8%
- . Sweet potatoes 6.6%
- . Onions 4.0%

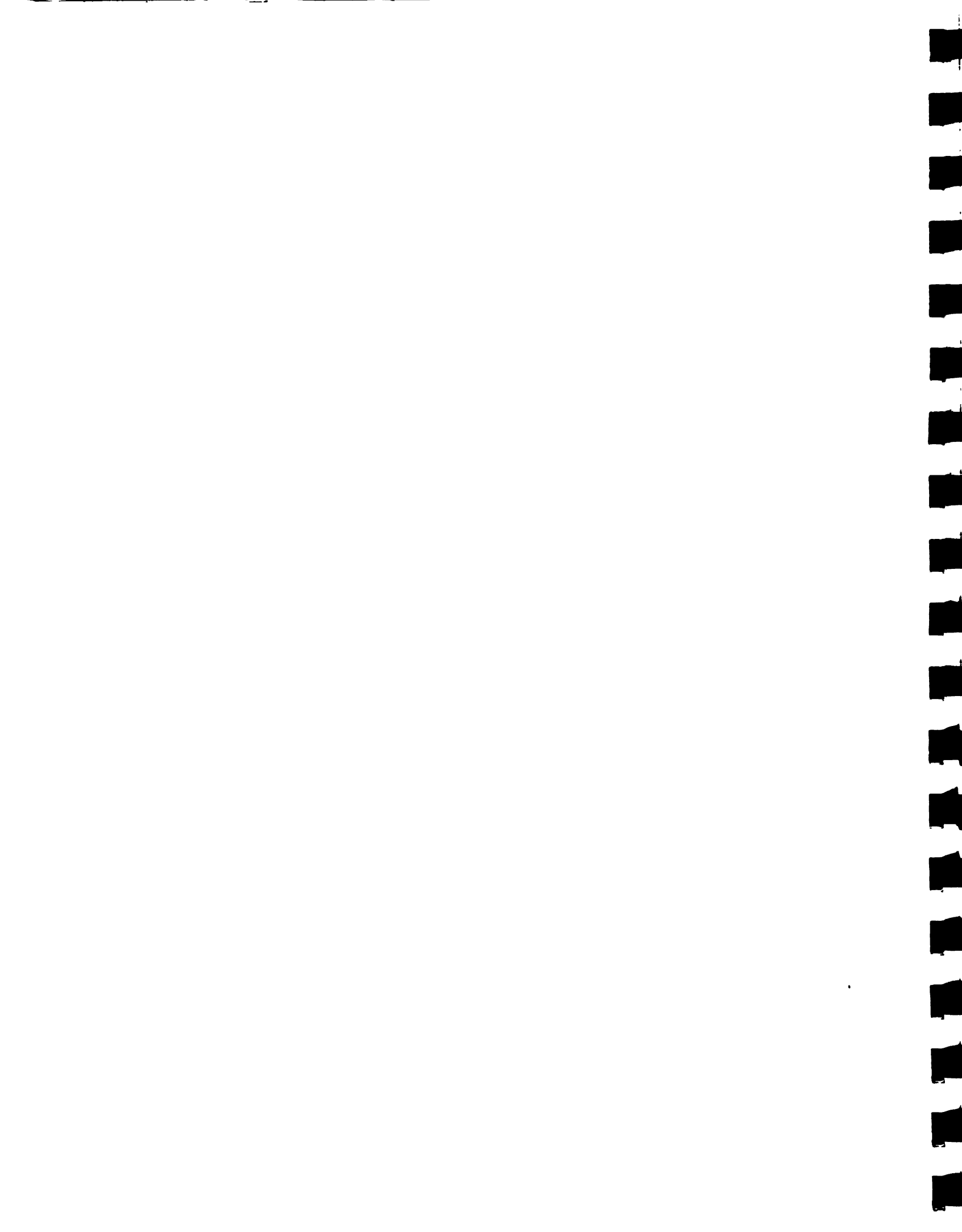
Table - 7 illustrates the market share by product in the fresh foods segment. The processed fruits and vegetable market which is worth \$20.6 million comprises six product segments. They are:-

- Jams, marmalades and jellies etc.
- Fruits and vegetable juices
- Frozen vegetables
- Dehydrated vegetables
- Misc. food preparations
- Tomato sauce

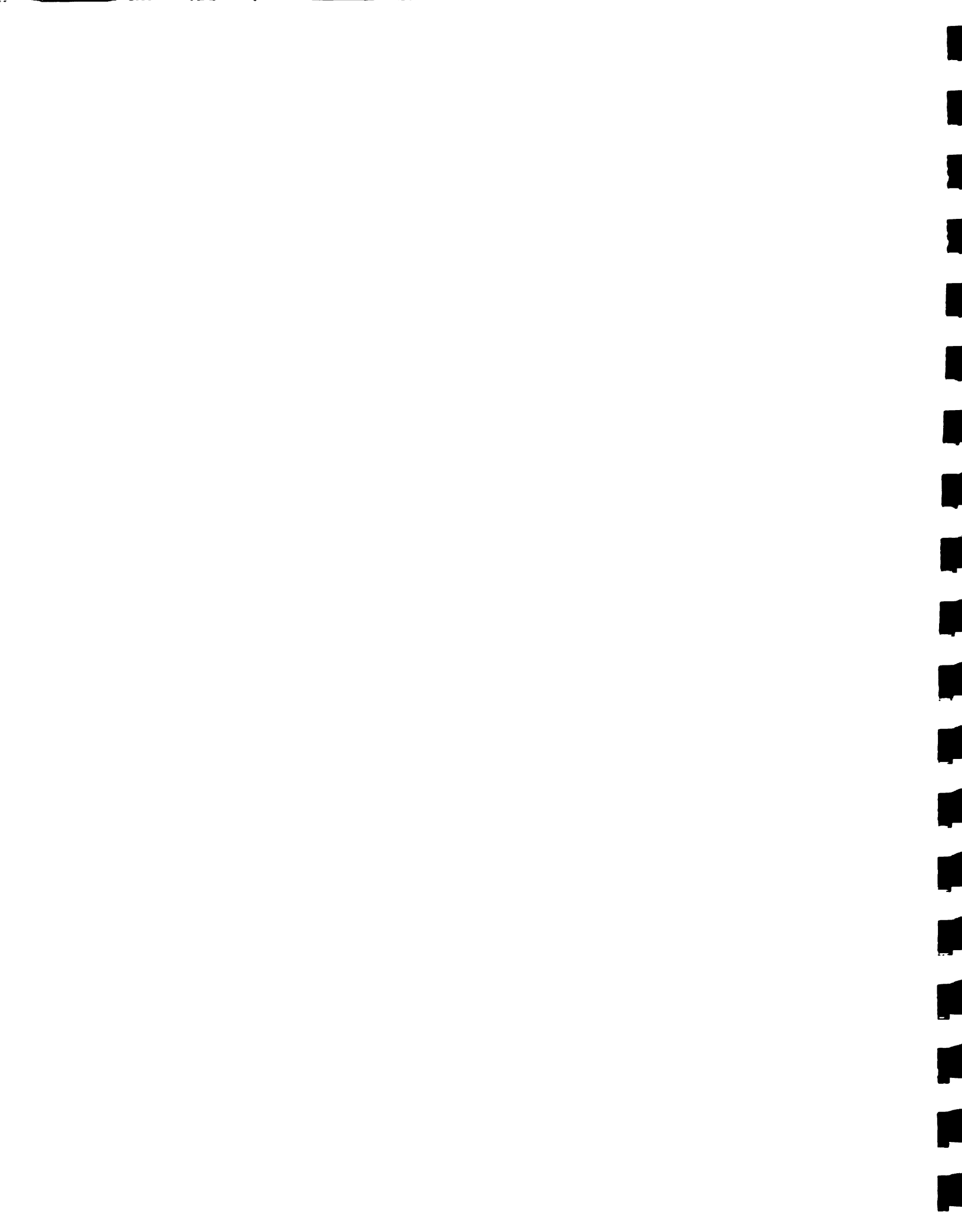
Fruits and vegetable juices, the largest product segment accounts for \$10 million or 48% of the processed fruits and vegetable products market. This is a very good indicator for the Bahamian agricultural sector, since its immediate production capability is oriented toward fruits and vegetables.

The meats and poultry market which is worth \$76 million has 9 products namely.

- . Pork
- . Bacon and ham
- . Sausage
- . Fresh or chilled beef
- . Sheep mutton
- . Goat mutton
- . Goat meat
- . Fresh poultry meat
- . Eggs

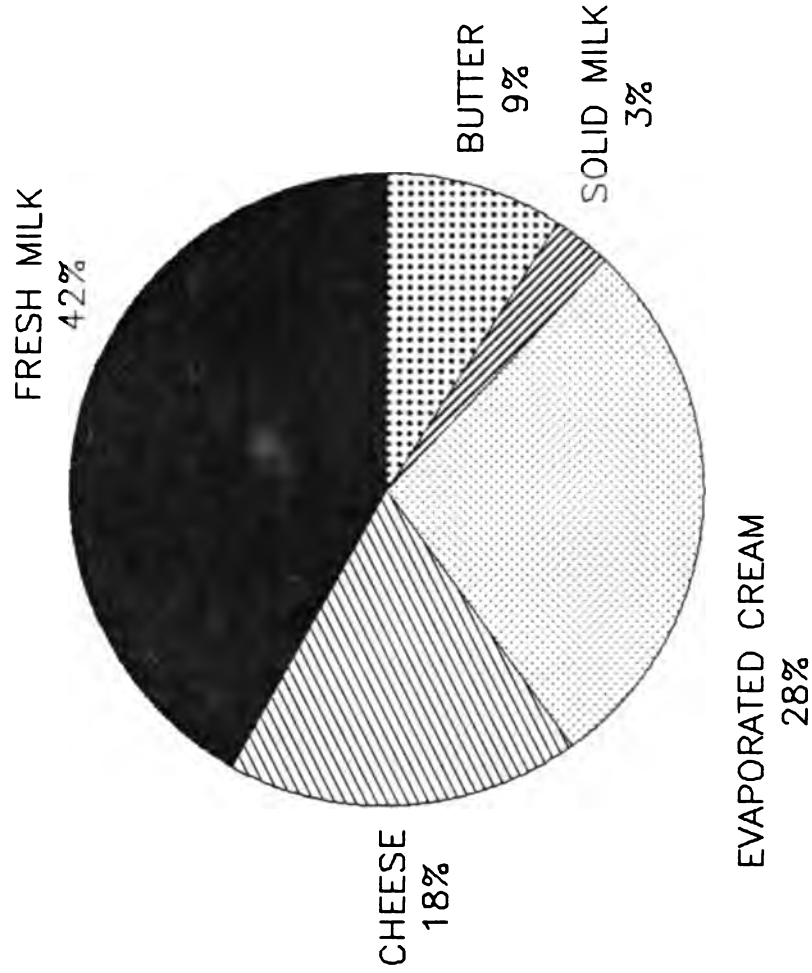


Poultry meat and fresh beef the two largest segments account for 31% and 28% respectively. Table-8 provides the details. The meat segment of the market represents a very significant opportunity for low risk investment in terms of the security of the market. Dairy products is a \$24 million market in The Bahamas with fresh milk accounting for \$10.3 million or 42%. The five products and their respective share of the market are set out in Exhibit - 2.





# THE BAHAMAS: SEGMENTATION OF THE MARKET FOR DAIRY PRODUCTS



TOTAL MARKET = \$24 MILLION



The dairy industry is in a pioneering stage in The Bahamas. Consequently it is one of the industries which needs high priority consideration in the promotion of investment. It has the potential to save the country up to \$24 million per year in foreign exchange. Besides there are many other down stream dairy products that could be developed when the industry is established.

C. Product Grades

The market is very sensitive to product grades especially for fresh foods which they can assess at the time of buying. Product grades for fresh foods will have to be comparable with U.S standards mainly due to the following.

- . About 73% of the market is supplied with U.S. standards imported for Miami
- . Most of the foreign patrons at the hotel and restaurants are Americans

The grading standards suggested for some leading products are set out in Table- 11.

TABLE - 11: THE BAHAMAS: ILLUSTRATIVE PRODUCT GRADING STANDARDS REQUIRED FOR SOME LEADING PRODUCTS

PRODUCT	STRATEGIC MARKET DRIVEN GRADE SPECIFICATIONS
Cabbage (red)	U.S no.1 2lbs per head
Cabbage (green)	U.S no.1 2lbs per head
Avocadoes	16-18 count per carton
Sweet peppers	medium, 25-30 count per crate
Fresh potato	80 count per carton
Lettuce naddichio	12 count per crate
Lettuce iceberg	24 count per crate

A SERIOUS EFFORT TO PRODUCE U.S. STANDARDS WILL ENHANCE THE POSITIONING OF BAHAMIAN PRODUCE IN ITS DOMESTIC MARKET AND ALSO SET THE STAGE FOR PENETRATING THE MIAMI MARKET, WHICH WILL BE THE BAHAMIAN MEDIUM TERM TARGET EXPORT MARKETING.



#### D. Demand Pattern

The demand pattern during the year is highly consistent and predictable due to the following reasons:

- . A wide range of the products such as sweet peppers, celery, strawberries, broccoli, honeydew, and snap beans, are driven by the tourist arrivals which is a steady and growing industry due to the following:
  - it has been growing at over 15% annually for the past 5 years.
  - tourism expenditure has been growing in real terms because of the Bahamian appeal to high income visitors.
  - the per capita income has been growing at over 10% annually.

Their real purchasing power has been increasing because the annual inflation rate has been held at less than 6% over the past 5 years while per capita income has been growing at over 10% annually during the same period. The market has a steady demand, but it reaches two moderate peaks: January to April, which is the peak period for tourist arrivals, and a moderate one in August and December, the peak holiday and festivity periods when consumption usually increases. The estimated percentage for food distributed by quarter is set out below.

January-March - 29%  
April-June - 20%  
July-September - 24%  
October-December - 27%

The details on the demand pattern for each item in the fruits and vegetable, processed food, meats and poultry and dairy are set in tables 13, 14, 15 and 16 respectively. This pattern of delivery which is almost even, except for the period January to March which is the peak of the tourist season, is almost uniformed. Despite the near uniformity in the pattern of demand, Bahamian farmers have not been able to produce to match the pattern of consumption. The reason for not being able to produce to take advantage of the market year round and also avoiding excessive supplies are:

- . Most farmers are still carrying out rain-fed agriculture and therefore have to restrict production to the rainy periods



- . The environmental risk of producing during the rainy season is much less.
- . Farmers do not receive adequate and timely information and signals about projected supply and demand and the implications for prices.

The concentration of production in rainy season, and the lack of timely information and signals about supply and demand and the implication of prices have been the main attributes to the suppression of prices in domestic agriculture over the past 5 years. Average prices for agricultural products have increased much lower than the inflation rate.

For example, the prices of leading products such as cucumber, tomatoes, bananas, and sweet peppers declined over the past five years while inflation rate has been increasing by an average of 4.8% annually during the same period, as illustrated below.

ITEM	ANNUAL AVERAGE INFLATION RATE FOR :	1983-1987 %
National		4.8
- Irish potatoes (December)		0.0
- Cucumbers (December)		-0.3
- No. 6 Tomatoes (December)		-27.0
- Cabbages (December)		-9.0
- Bananas (December)		0.0
- Medium Sweetpeppers (December)		-10.5
- Watermelons		5.0

Based on the foregoing, and the table above, the Bahamian farmers have two main challenges ahead of them for increasing their income. Those challenges are:

- . Growing crops year round basis
  - These will give them a bigger share of the market as foreign produce have to be imported especially when local crops and not in production.
  - This will help to regulate output so that prices are not suppressed
- . Producing a wider range of crops instead of concentrating on about 5, which they all produce at the same time.





TABLE 12 - THE BAHAMAS: MARKET SIZE BY QUARTER FOR FRESH FOOD

MAJOR ITEMS		TOTAL MARKET	JAN- MAR	APR- JUN	JUL- SEPT	OCT- DEC
Tomatoes	000lbs	5300	1590	1060	1378	1272
Cabbage	000lbs	4042	1220	850	1050	922
Sweet peppers	000lbs	855	300	110	230	215
Onions	000lbs	3286	1020	650	850	766
Lettuce	24ct c/s(000)	77	28	11	20	18
Celery	30ct c/s(000)	35	12	6	9	8
Cucumbers	000lbs	345	110	62	90	83
Irish potatoes	000lbs	9892	3000	2000	2600	2292
Peanuts	000lbs	840	240	180	220	200
Peas	000lbs	432	130	87	120	895
Okra	000lbs	68	18	15	18	17
Grapefruits	0004/5Bu	26	8	5	7	6
Oranges	0004/5Bu	116	36	22	30	28
Tangerine	0004/5Bu	6	2	1	1	2
Avacadoes	000Each	293	90	55	73	75
Watermelon	000lbs	889	255	186	267	181
Pineapples	000Doz	35	11	7	9	8
Sweet Corn	000c/s	15	6	2	4	3
Snap beans	000c/s	11	4	2	3	2
Strawberries	12Pt(000)	36	14	5	10	7
Cauliflower	000 c/s	17	7	22	5	3
Carrots	000 c/s	32	10	5	9	8
Honey dew	000 c/s	28	9	4	8	7
Bananas	000lbs	7980	2150	1700	2080	2050
Mangoes	000Bu	20	5	5	6	4
Limes	0004/5Bu	17	6	3	5	3



TABLE 13 - THE BAHAMAS: DEMAND PATTERN BY QUARTER FOR PROCESSED FOODS QUALITY DEMAND: 000 LBS

Item	Market Size 000lbs	Jan- Mar	April- June	July- Sept	Oct- Dec
Jams, Jelly, Marmalade	585	181	117	161	126
Fruit & Vegetable					
Juice	28,588	8,860	6,003	7,430	6,295
Frozen Vegeables	3,255	1,170	459	910	716
Dehydrated Vegetables	347	115	62	101	64
Misc. Food					
Preparation	22,422	7,175	4,260	6,270	4,717
Tomato Sauce	57	18	9	14	16
<b>Total:</b>	<b>55,254</b>	<b>17,519</b>	<b>10,910</b>	<b>14,886</b>	<b>11,939</b>



TABLE 14 - THE BAHAMAS: DEMAND PATTERN BY QUARTER FOR MEATS/POULTRY

Main Items		Total Market	Jan- Mar	April- Jun	July- Sept	Oct- Dec
-Pork	000lb	9,385	2,600	1,970	2,440	2,375
Bacon & Ham	000lb	3,954	1,186	750	918	1,100
Sausage	000lb	5,056	1,600	990	1,370	1,096
Fresh or						
Chilled Beef	000lb	11,711	3,510	2,280	2,641	3,280
Sheep Mutton	000lb	3,333	1,000	650	783	900
Goat Mutton	000lb	358	120	68	80	90
Fresh Poultry	000lb	26,386	7,180	5,800	6,306	7,100
Eggs	000doz	5,341	1,600	1,120	1,181	1,440



TABLE 15 - THE BAHAMAS: ESTIMATED QUARTERLY DEMAND PATTERN FOR DAILY PRODUCTS IN 000 LBS

Major Items	Total Market	Jan-Mar	Apr-Jun	July-Sept	Oct-Dec
Milk, Cream, Evap/Condensed	1,600	4,960	3,520	3,680	3,840
Milk Cream in Solid	1,430	450	300	320	360
Fresh Milk	8,760	2,580	1,980	2,100	2,000
Butter	2,636	790	550	646	650
Cheese	3,476	1,080	726	730	940
<b>Total: 000 LBS</b>	<b>32,302</b>	<b>9,860</b>	<b>7,076</b>	<b>7,576</b>	<b>7,790</b>

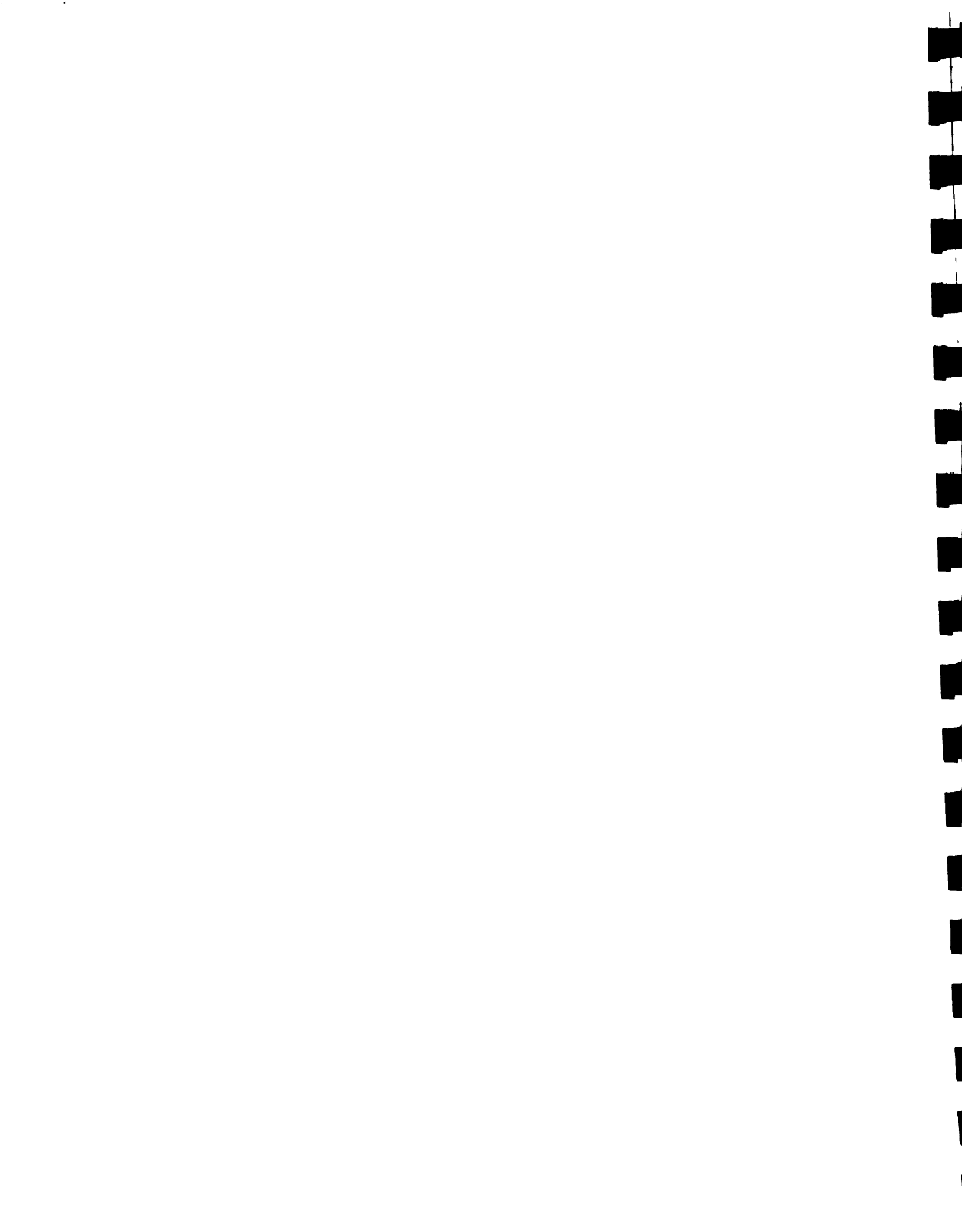
E. Local Supply Pattern

A consistent supply of Bahamian agricultural output throughout the year will be one of the most critical success factors to realizing a greater share of the domestic market. An appropriate production technology, irrigation and the proper mix of varieties especially for crops will be necessary to enhance the achievement of year-round supply. The available data on the pattern of supply indicate that only meat, especially poultry meat is being produced in any consistent volume throughout the year as illustrated in Table 16.

TABLE 16 - THE BAHAMAS: QUARTERLY PRODUCTION OF BIRDS 1988

PERIOD	NO. OF BIRDS IN (000)	PERCENTAGE OF TOTAL	PERCENTAGE OF ANNUAL CONSUMPTION REQUIRED PER PERIOD
January - March	693	27.2	29
April - June	599	23.5	20
July - September	603	23.7	24
October - December	651	25.6	27
<b>Total:</b>	<b>2,546</b>	<b>100.00</b>	<b>100.00</b>

Source: MINAG





Based on Table 17, the pattern of output of poultry is very close to the demand pattern. The marketing strategy as far as supply pattern for poultry is concerned can therefore be regarded as excellent. The supply of the leading domestic products in the fresh foods market is tomatoes, bananas, onions, fresh potatoes, cabbage, sweet peppers, and watermelon is very seasonal. Most of the supply come in the first and second quarters of the year and after that period very little is produced. Table 14 and Exhibit - 4 illustrate.

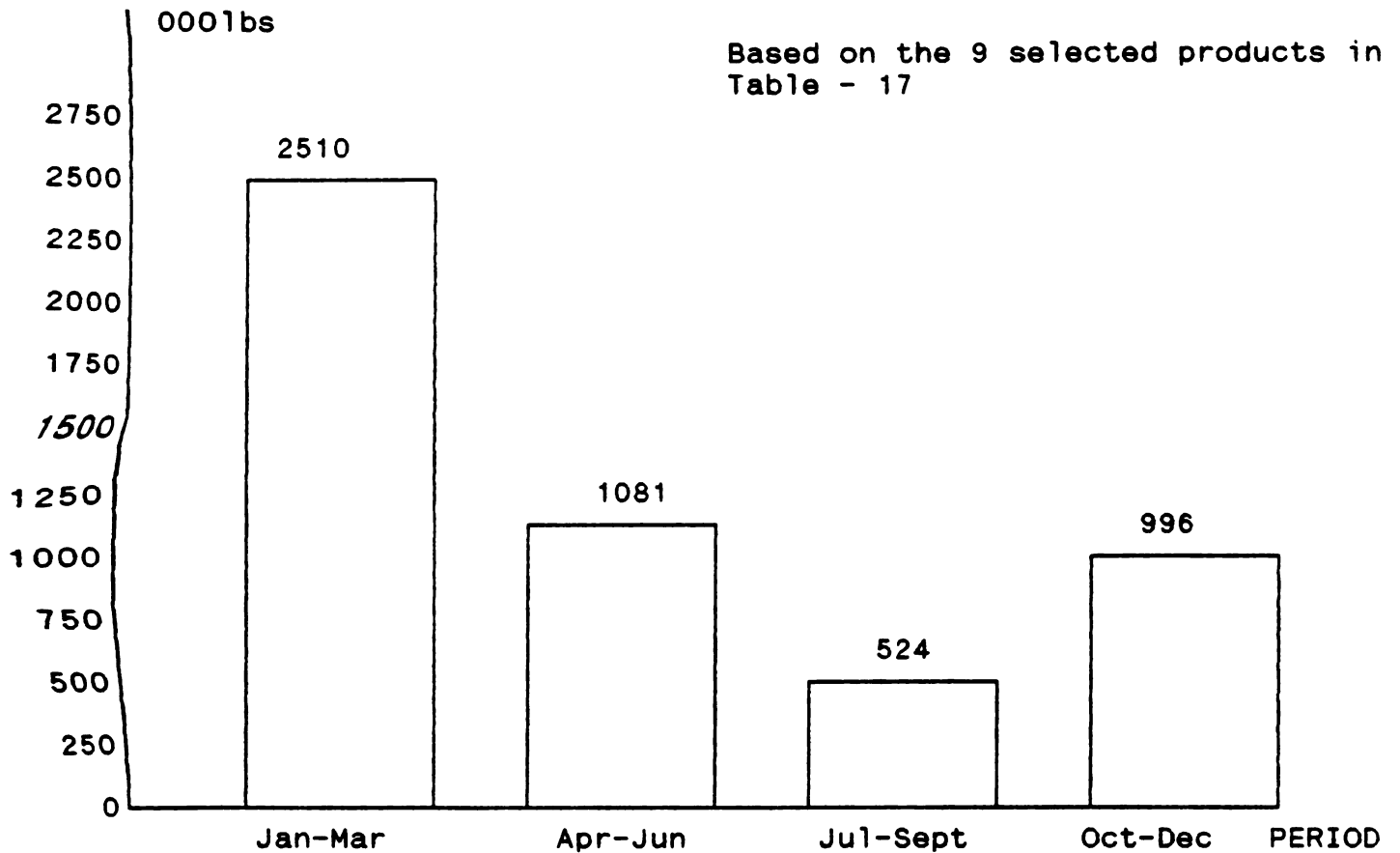
TABLE 17 - THE BAHAMAS: PATTERN OF FRESH FOODS SALES TO THE PRODUCE EXCHANGE 1988 IN (000 LBS)

Items	Jan- Mar	Apr- Jun	July- Sept	Oct- Dec	Total
Bananas	472	202	237	545	911
Tomatoes	876	376	0	279	1,531
Pineapples	12	5	1	1	19
Onions	249	107	1	0	357
Irish Potatoes	302	130	0	0	432
Cabbages	509	218	0	35	762
Sweet Pepper	3	1	0	0	0
Watermelons	60	25	268	111	464
Cucumbers	27	11	17	25	80
<b>Total: 000 LBS.</b>	<b>2,510</b>	<b>1,081</b>	<b>524</b>	<b>996</b>	<b>4,554</b>

\*The data available for the first two quarters are grouped together for six months. Hence a ratio of 70% : 30% for the first and second quarters had to be used. The ratio was determined by interviews with farmers and packing houses.

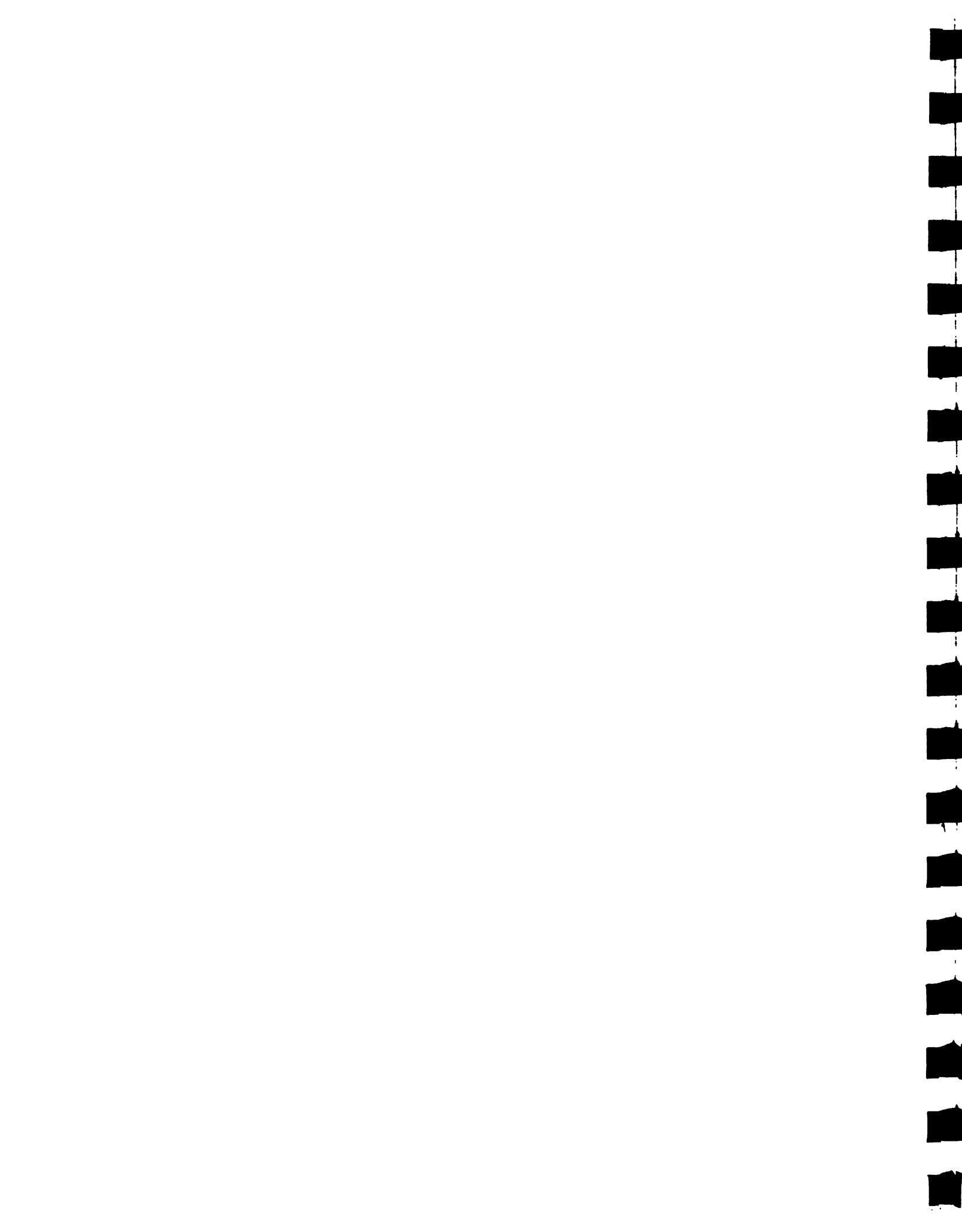


EXHIBIT 4 - THE BAHAMAS: PATTERN OF FRESH FOODS SALES TO THE PRODUCE EXCHANGE 1988 IN (000LBS)



Based on the Table more than half of the agricultural output is supplied in the first three months of the year, while only 10% is supplied in the summer months which is also a peak consumption period. There are however, three important signals from this pattern of supply. They are:

- . Improved production technology will be required, especially in irrigation, to encourage production in the dry season;
- . The Bahamas has a natural advantage to produce fresh foods in the period December to March. This gives it a distinct export marketing opportunity in the U.S.A., since the market is supplied mainly by imported products during this period when the weather conditions are unfavourable for domestic production.



- . The economic viability of improved marketing infrastructure such as packing houses, cooler equipped boats, a modern Produce Exchange, and fresh foods market buildings, the main market related infrastructure required in the sector, will be adversely affected if output is concentrated in a single period.

#### F. Domestic Market Opportunities

The market opportunities should be screened from four sub-sectors: fresh foods, processed foods, meats, and dairy products. The criteria for screening realistic opportunities should comprise the following:

- . A demand is identified, and a large portion of it is filled by foreign suppliers
- . The country has a track record in producing the products
- . The country is technically ready to produce the product
- . The country has the potential to meet the technical requirements to produce the product
- . The size of the required investment for a viable production unit is compatible with the level of investments Bahamian entrepreneurs usually make; as foreign investment is not encouraged in some domestic market production
- . Most of the requisite inputs are locally available.

These criteria can further be categorized to determine which opportunities can be exploited in the immediate, medium and longer term as follows:

- . Immediate opportunities are those which satisfy the following conditions:
  - A demand is identified and a large portion of it is filled by foreign suppliers
  - The country is technically ready to produce the product
  - The country has a track record in producing the product
  - The size of the investment per viable unit is small, say under \$150,000.
- . The medium term opportunities are those with the following characteristics:



- . A demand is identified and a large portion of it is filled by foreign suppliers
  - The country is developing the technical requirements to produce it
  - It is the bi-product of an existing industry
  - The size of the required investment for a viable unit is under \$500,000.
  - The requisite inputs can be developed locally, in the medium term.
  
- . The longer term opportunities are characterized as follows
  - The country has the potential to meet the technical requirements to produce the product
  - The size of the market is large and growing
  - The industry is now in a pioneering stage
  - The required investment is large

Based on the criteria set out above, the market opportunities can now be screened into three time horizons in Table-18 as follows:

TABLE-18 THE BAHAMAS: SHORT-TERM REALISTIC AGRICULTURAL MARKETING OPPORTUNITIES

<u>Short Term Opportunities</u>	<u>Incremental Production Volume</u>	<u>Incremental Foreign Exchange Savings \$000</u>
1. Fresh Foods		
Tomatoes 000lb	2,089	926
Cabbage 000lb	1,638	347
Sweet peppers 000lb	567	503
Onions 000lb	2,677	584
Lettuce 000lb	74	1,246
Cucumbers 000lb	132	47
Irish potatoes 000lb	8,499	1,022
Sweet potatoes 000lb	2,100	1,102
Peas 000lb	405	148
Okra 000lb	10	5
Bananas 000lb	6,700	1,366
Mangoes 000bu	9	161
Grapefruits 0004/5bu	20	145
Oranges 0004/5bu	103	3
Tangerines 0004/5bu	4	48
Avacado 000each	275	4
Watermelon 000lb	117	17
<hr/>		
SUB-TOTAL \$000		7,674
<hr/>		





TABLE - 18 (CONTD) THE BAHAMAS: SHORT-TERM REALISTIC AGRICULTURAL MARKETING OPPORTUNITIES

<u>SHORT TERM OPPORTUNITIES</u>	<u>INCREMENTAL PRODUCTION VOLUME</u>	<u>INCREMENTAL FOREIGN EXCHANGE SAVINGS \$000</u>
<b>2. Meats</b>		
Pork 000lb	9,085	9,902
Sheep mutton 000lb	3,329	3,727
Goat mutton 000lb	353	274
Poultry 000lb	8,048	5,740
Eggs 000dz	147	63
-----		
SUBTOTAL	20,962	19,643
-----		
<b>3. Processed Foods</b>		
Jam, jellies, marmalades, etc 000lb	538	438
Tomato sauce 000lb	57	31
Frozen vegetable 000lb	3,255	1,488
-----		
SUBTOTAL	3,850	1,957
-----		
<b>4. Dairy Products</b>		
NONE		
-----		
TOTAL		29,274
-----		

Based on the screening results set out in Table- 18 an incremental \$29.3 million worth of products could be produced for the domestic market in the short term with fresh meats accounting for \$19.6 million or 67%. There are however a few important points to be noted especially in terms of poultry and pork.

- . The 8.1 million lbs of poultry worth \$5.7 million can be supplied by the free zone plant already operating in Freeport, Grand Bahama. Therefore, if a new venture should be introduced, it could dislocate the one in Freeport. The products from the Freeport plant are reflected in the marketing data as imports, primarily because the Freeport plant is operating under the Free Zone arrangements. Since it supplies to the local market, from a local operator and employs local resources, it should be regarded as local for the purpose of this study. Therefore there is no need for an additional plant.
- . The local market driven opportunity to produce an incremental 9 million pounds of pork valued at \$9.9 million generally looks like a remote opportunity due to the inadequacy of feed supply. It is however, being included as a short term for opportunity



- . The local market driven opportunity to produce an incremental 9 million pounds of pork valued at \$9.9 million generally looks like a remote opportunity due to the inadequacy of feed supply. It is however, being included as a short term for opportunity because BAIC is promoting it and there are already several investors including incumbent pig farmers, who have expressed interest in investing in the industry. Besides, there are serious investment intentions to expand on the local production of animal feed. This opportunity therefore appears to be practicable in the short run.

The details used to determine the activities that should be exploited in the short run are set out in tables 18, 19, and 20. for processed foods, fresh foods, meats, and poultry respectively.

There are four medium term market opportunities. They are set out below.

<u>Item</u>	<u>Incremental Production Volume</u>	<u>Incremental Foreign Exchange Savings \$000</u>
Bacon and Ham	3,954	4,310
Sausage	5,056	6,675
Fresh cow's milk	8,760	10,324
Dehydrated vegetables	347	568
<b>Total:</b>	<b>18,117lbs.</b>	<b>\$21,877</b>

These medium term opportunities, bacon and ham, sausage, fresh cows milk, and dehydrated vegetables can save the country an estimated \$21.9 million in foreign exchange. Three of the opportunities: bacon and ham, sausage and dehydrated vegetables will require successful production expansion programs for pork and vegetables in the short run. The fresh milk production will require large scale investment.



TABLE - 19: THE BAHAMAS: VALUE OF MARKET FOR FRESH FOODS AND LOCAL MARKET SHARE - 1988

MAJOR ITEMS	VALUE OF MARKET	VALUE OF LOCAL SUPPLY	VALUE OF FOREIGN	LOCAL FARMERS MARKET SHARE (%)
Tomatoes	2,040	1,114	926	55
Cabbage	1,126	779	347	69
Sweet peppers	616	113	503	18
Onions	671	87	584	13
Lettuce	1,301	55	1,246	4
Celery	738	12	726	2
Cucumbers	185	138	47	75
Irish potatoes	1,307	287	1,022	22
Sweet potatoes	1,105	3	1,102	0.3
Peanuts	588	0	588	0
Peas	176	28	148	16
Okra	32	27	5	84
Bananas	1,680	314	1,366	19
Mangoes	327	166	161	51
Grapefruits	209	64	145	31
Oranges	343	261	82	76
Limes	285	282	3	99
Tangerines	118	70	48	59
Avocados	22	18	4	82
Water melons	180	163	17	91
Pineapples	560	523	37	93
Sweet corn	198	-	198	0
Snap beans	229	-	229	0
Straw berries	1,103	-	1,103	0
Cauliflower	313	-	313	0
Broccoli	290	4	286	1
Carrots	453	1	452	0
Honey dew	389	-	389	0
<b>TOTAL \$000</b>	<b>16,580</b>	<b>4,512</b>	<b>12,068</b>	<b>27%</b>

Sources (a) Trade Statistics  
 (b) Ministry of Agriculture  
 (c) Produce Exchange  
 (d) Mission Estimates



TABLE - 20 THE BAHAMAS: VALUE OF MARKET FOR MEATS AND POULTRY AND LOCAL MARKET SHARE 1988

MAJOR ITEMS	VALUE OF MARKET \$000	VALUE OF LOCAL SUPPLY \$000	VALUE OF FOREIGN SUPPLY \$000	LOCAL FARMER MARKET SHARE %
--				
Pork	10,248	346	9,902	3
Bacon	4,310	-	4,310	0
Sausage	6,675	-	6,675	0
Fresh or Chilled beef	21,286	81	21,205	0.4
Sheep mutton	3,735	8	3,727	0.2
Goat mutton	283	9	274	3
Fresh poultry	23,946	18,200	5,746	26
eggs	5,535	5,472	63	99
--TOTAL	\$000 76,018	24,116	51,902	32

Sources: (a) Department of Statistics  
 (b) Department of Agriculture  
 (c) Mission Estimates

Most investment opportunities can be exploited in the long term provided that the environment is conducive to investment. Therefore all other products not screened for the short and medium term should be listed for the long term. They are:-

- . Fruit and vegetable juices
- . Miscellaneous food preparations
- . Condensed and other processed milk
- . butter
- . cheese

The present value of imports on these products is \$31.4 million. The realization of these opportunities will be driven by buoyant activities in production of the requisite inputs in the medium term. Those inputs are fruits, vegetables, and fresh milk.





## G. Export Market Opportunities

The Bahamas has already had a track record in the export of grapefruit, lemons, persian limes, oranges, avocados, papaya, and pumpkin mainly from Abaco, Eleuthera, and Grand Bahama. These accounted for 6,132 short tons in 1987 as illustrated in Table- 21.

TABLE - 21. THE BAHAMAS: TOTAL EXPORT OF AGRICULTURAL PRODUCTS (FRUITS AND VEGETABLES) 1987-1988 IN SHORT TONS.

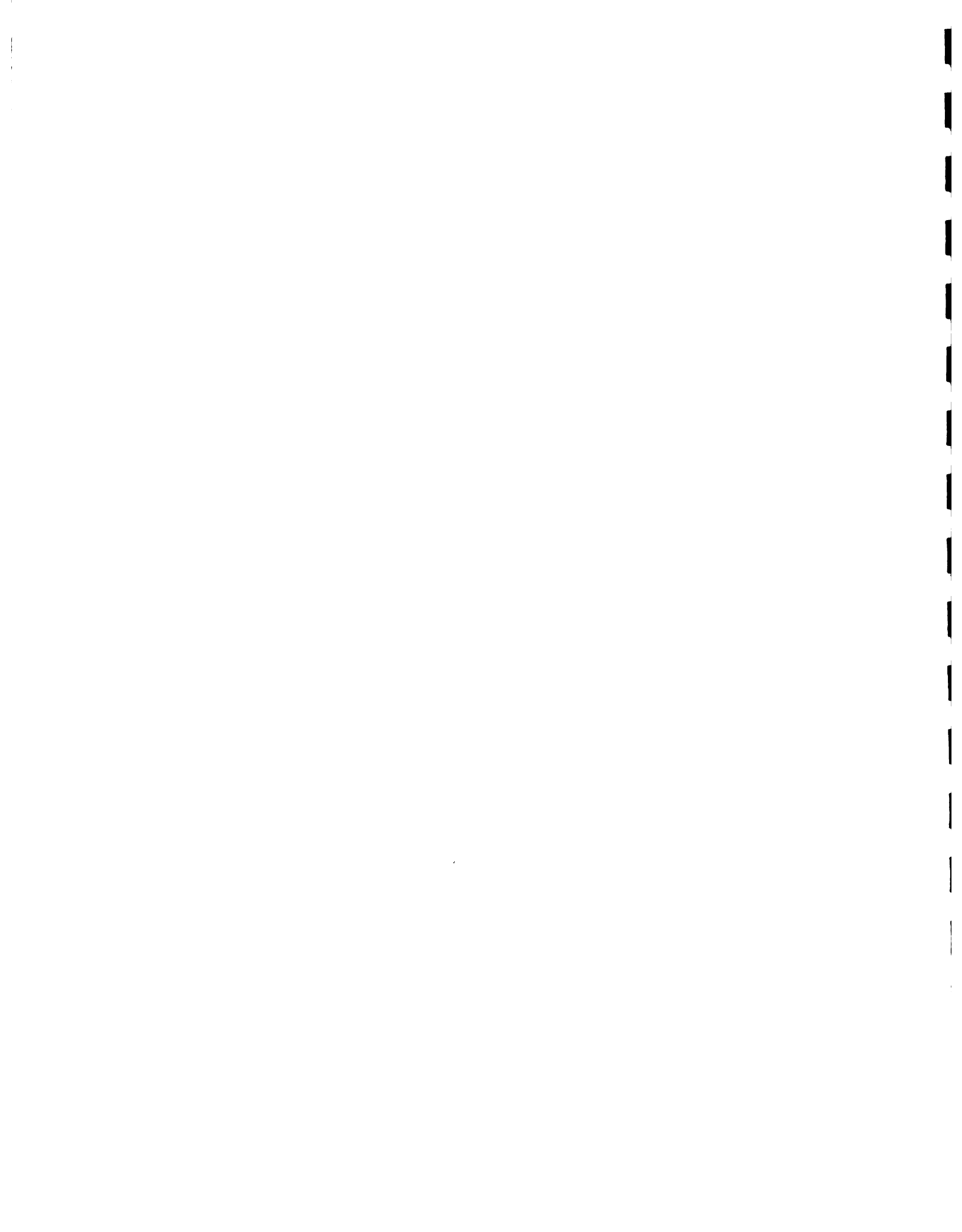
PRODUCT	EXPORT		
	1987	1988	% CHANGE 1987-1988
Grapefruit	4,372	3,346	- 29.9
Lemons	4,629	1,767	- 61.8
Persian limes	880	912	+ 3.6
Oranges	158	73	- 53.5
Avocados	62	30	- 51.6
Papaya	124	2	- 98.6
Pumpkin	-	2	
<b>TOTAL</b>	<b>10,765</b>	<b>6,132</b>	<b>- 43.0</b>

Source : Ministry of Agriculture

There has been a 43% decline in export in 1988 over 1987 mainly due to softer market conditions for lemons, and lower production for the other crops. THERE ARE LESS THAN 10 EXPORTERS OF FRESH FRUITS AND VEGETABLES IN THE BAHAMAS, STHEREFORE THERE IS AN URGENT NEED TO ACCELERATE EFFECTIVE INVESTMENT IN EXPORT ORIENTED FRUITS AND VEGETABLE PRODUCTION.

- . There are over 150,000 acres of suitable land in the northern islands for this activity.
- . The export market is large and growing. Strategically, it is more realistic for the Bahamas to target the Florida market in the medium term for its export crops. The main reasons are:-

The market is the closest export point for the Bahamas. Its close proximity generates two distinct advantages:



- . Rates could be 66% lower than they are for exporting countries such as Mexico and Chile because most shipping lines are prepared to give concessionary rates since they return to Miami almost empty at all times.
- . The market is large enough.
- . Florida is the gateway for ground shipment of fresh foods to many large U.S and Canadian cities.
- . Exporting and export promotions will be easier to manage from such a near and single location.

The size of the market for the imported products in which the Bahamas can respond in the medium term is 1.4 billion lbs. Exhibit - 5 illustrates:

The key products are: limes, papaya, sweet peppers, tomatoes, pineapples, water melons, cantaloupes, oranges, grapefruit, and cucumbers. Table-21 sets out the details regarding the size of the market for imported fruits and vegetables. Some of the leading brokers and distributors in the Florida market who were contracted during the course of this study indicated a strong interest in doing business with Bahamian exporters of agricultural products. Exhibits 6 and 4 substantiate.

The main competing countries for the Florida market are Caribbean and Central American countries and Latin American countries. The main ones are listed below.

- . The main Caribbean ones are:-
  - Dominican Republic
  - Haiti
  - Jamaica.
- . The main Central American ones are:-
  - Costa Rica
  - Mexico
  - Guatemala
- . The main Latin American ones are:-
  - Chile
  - Brazil

Most of the Caribbean and Central American countries, like the Bahamas enjoy preferential treatment under the C.B.I. However the Bahamas enjoys proximity which a unique advantage.



# VOLUME OF IMPORTS OF SELECTED FRUITS AND VEGETABLES INTO MIAMI

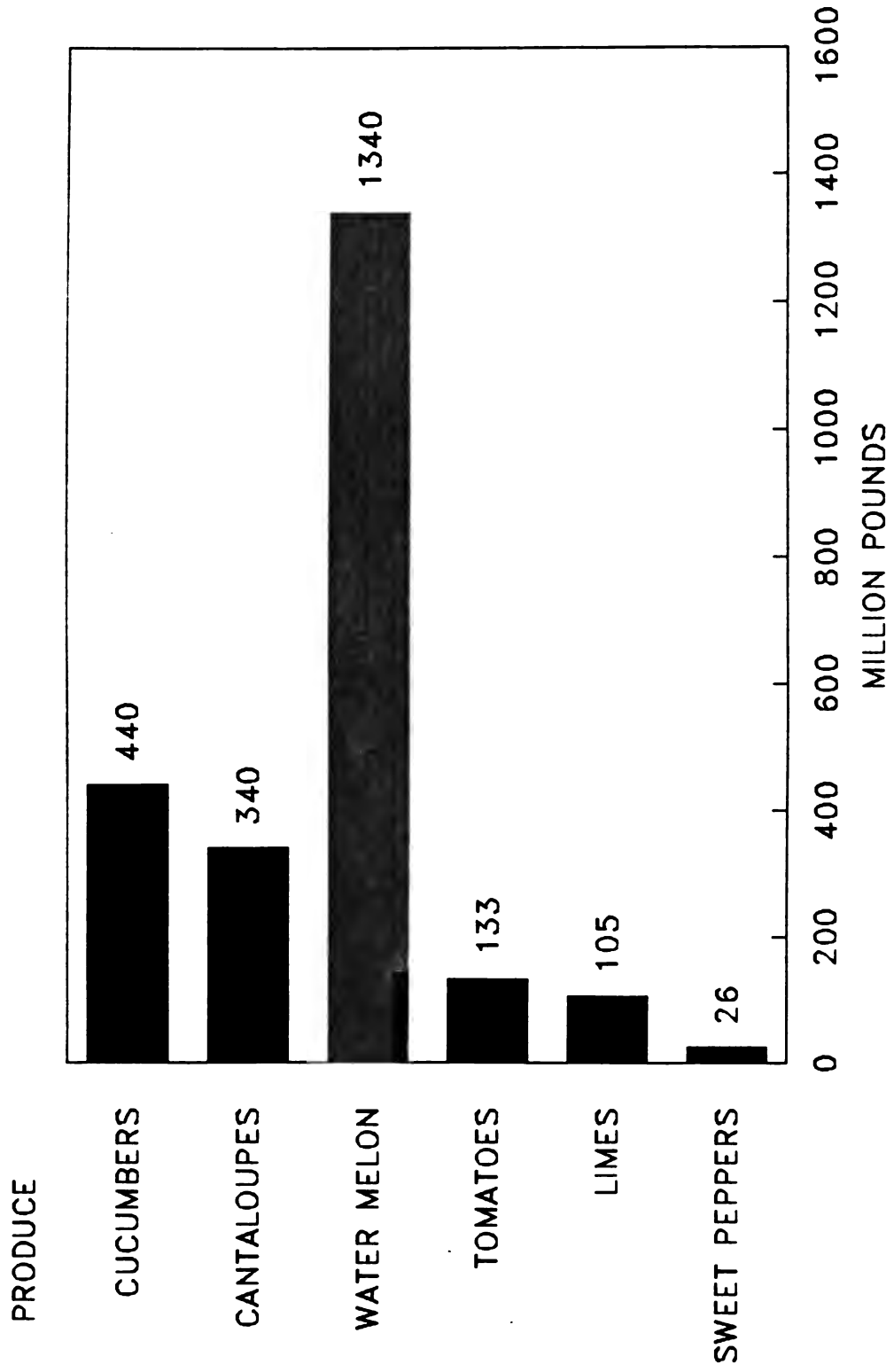


EXHIBIT - 5

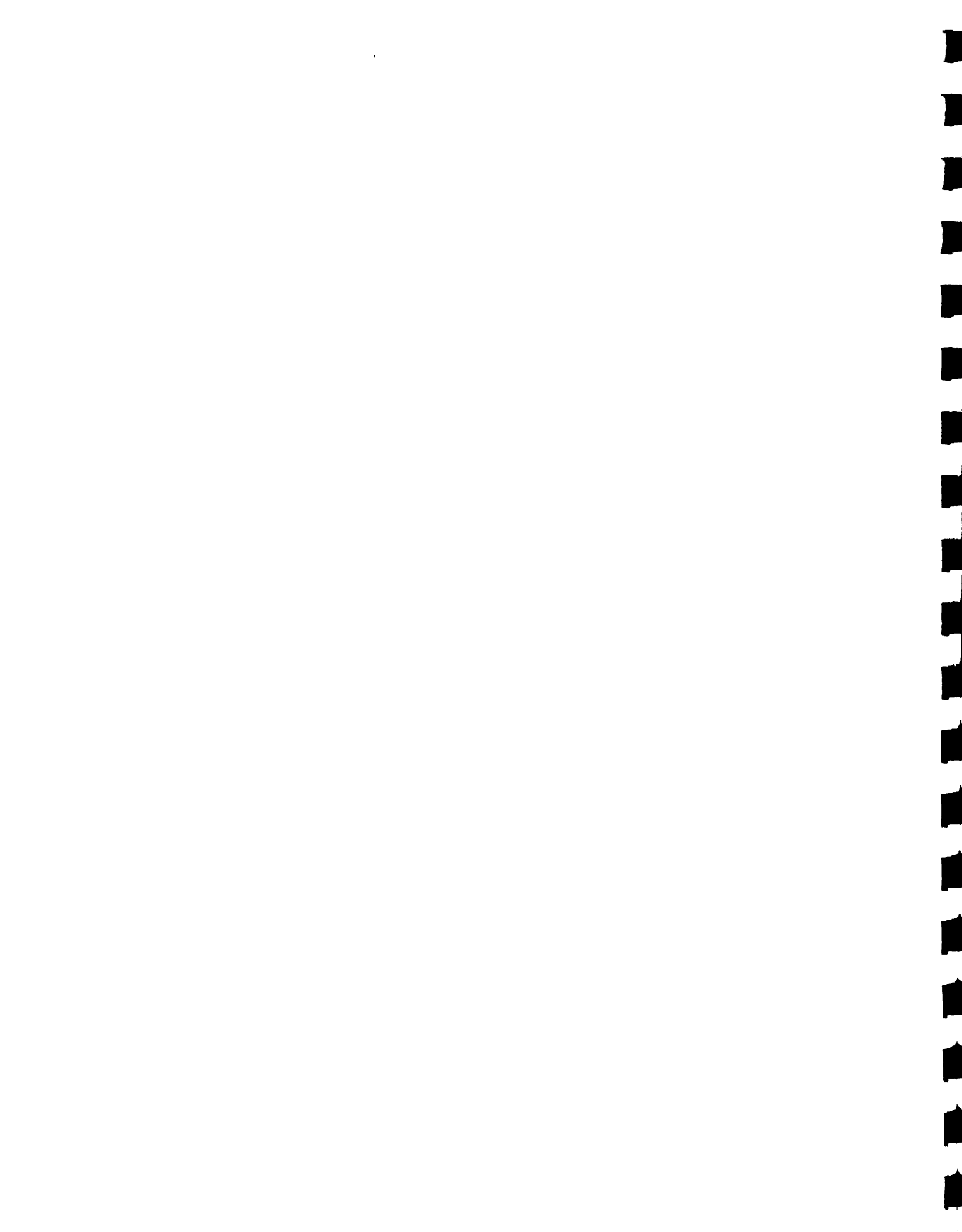


TABLE - 22: SHORT LIST OF EXPORT OPPORTUNITIES TO  
FLORIDA - U.S.A. 1987/1988

MAJOR ITEMS	UNIT	ANNUAL IMPORTS INTO FLORIDA
Limes	millions of lbs	105
Papaya	millions of lbs	0.3
Sweet pepper	millions of lbs	26
Tomatoes	millions of lbs	133
Pineapples	millions of lbs	7
Water melons	millions of lbs	307
Cantaloupes	millions of lbs	340
Oranges	millions of lbs	1
Grapefruits	millions of lbs	0.7
Cucumbers	millions of lbs	440
<b>TOTAL</b>	<b>MILLIONS OF LBS</b>	<b>1,360</b>

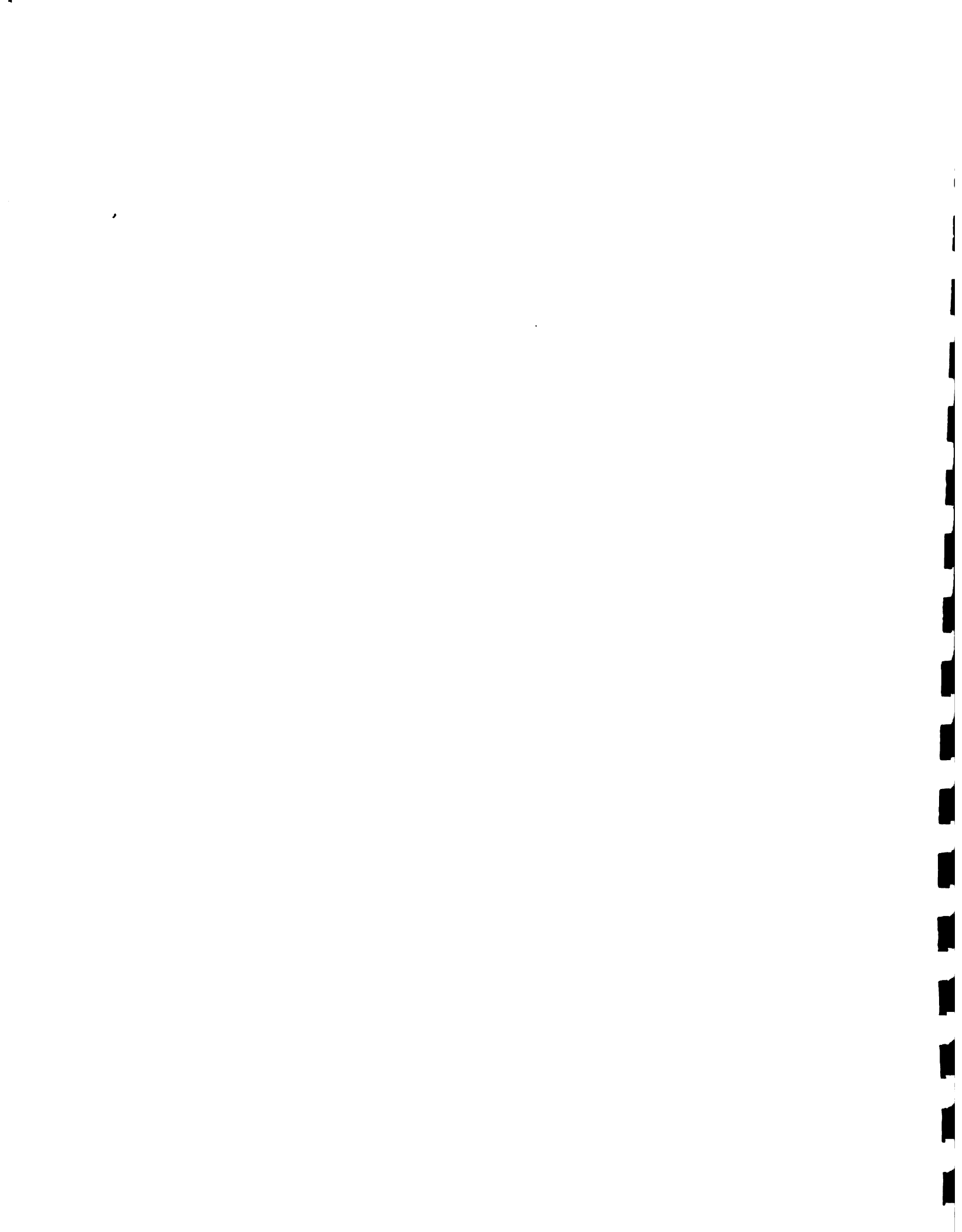




EXHIBIT - 6

TAVILLA MARKETING, INC.

July 20, 1989

Trevor Hamilton & Associates  
Attn: Dr. Trevor Hamilton  
10 Kensington Crescent  
Kingston 5, Jamaica  
West Indies

Dear Mr. Hamilton:

This letter is to confirm our meeting in Tampa, Friday July 14th.

Tavilla Marketing is company which markets fresh fruits and vegetables grown outside The United States. We were Privately owned until three years ago when we were purchased by the Albert Fisher Group PLC, London, England; Albert Fisher is a company which is heavily involved in the food business, especially fresh fruits and vegetables. Sales this year will be over one billion dollars.

In the winter months of 1984 Tavilla Marketing grew, in conjunction with four Bahamian growers, on Andros Islands, cucumbers for the export market. Due to a record low rainfall and lack of irrigation equipment it was a less than a desirable venture. However, with the right irrigation equipment and normal rainfall, a successful vegetable operation could be operated. Along with cucumber, you also could grow bellpepers, water melons, squash and hopefully honeydews and cantaloupes.

With the close proximity of the Bahama Islands to the U.S. market, coupled with low freight rates, a definite advantage exists over Central America and other Caribbean Countries.

Tavilla Marketing is very interested in the marketing of fruits and vegetables grown in the Bahamas. In addition to the marketing, Tavilla Marketing, Inc. would be in a position to do consulting work on packaging, packing, transporting and other needed aspects to make this venture viable.

If you have any questions, please don't hesitate to call me or David Ranscht.

Very truly yours,  
John Williams  
Chief Operating Officer



BOB PITTMAN PRODUCE CO, INC.  
POMPANO STATE FARMERS MARKET  
OFFICE A-15  
POMPANO BEACH FL 33069  
(305)946-8157

EXHIBIT - 7

Dr. Trevor Hamilton  
Kensington Avenue  
Kingston, Jamaica

Dear Dr. Hamilton,

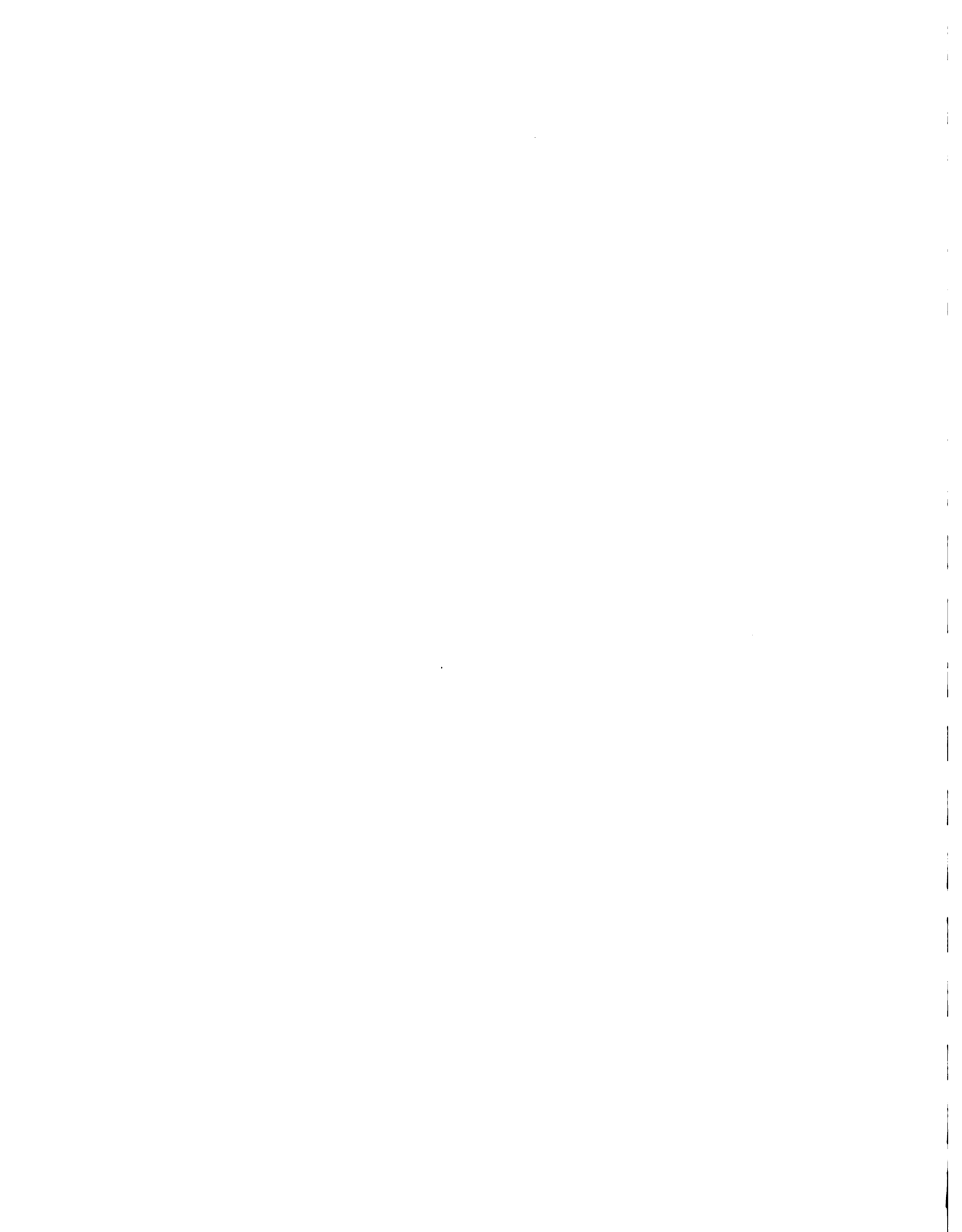
In response to my meeting with you, this letter is to acknowledge that we are interested in working for you as a consultant in all areas of your farming operation - from setting up and operating to sales and distribution.

We are also in a position to act as a broker in a wide range of products that we discussed with you. These products must meet the high standards with the products already handled by Bob Pittman Produce Co., Inc.

We would be pleased to come and meet you to discuss this.

Sincerely,

J. Barry Delk  
Vice President  
BOB PITTMAN PRODUCE CO., INC.



Even though the Florida market is large, its demands for imports is strong only during the period of December to April. Therefore production, marketing, and shipping have to be strategically planned to exploit the market during this period. Table 23 provides the details on the monthly percentage of the annual demand for the imported fruits and vegetables which are the Bahamian target products.

Finally, the Cascarilla bark is another exportable product. The market for this is however in Europe where it is used as an ingredient for alcoholic beverages mainly campari. The plant grows uncultivated in Crooked Island. It has the potential to yield gross income of \$12,000 per acre if it is cultivated. This therefore means that it is one of the most financially viable crops in the Bahamas. FURTHER DEVELOPMENT WORK NEEDS TO BE CARRIED OUT TO COMMERCIALISE THE PRODUCTION OF THIS PLANT IN ORDER TO TAKE FULL ADVANTAGE OF THE EUROPEAN DEMAND FOR IT.

TABLE 23: Florida: SCHEDULE OF IMPORTS AND PERCENTAGE OF IMPORTS BY MONTH 1987/1988

MAJOR ITEMS	1987						1988					
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Limes	7	10	8	10	9	7	7	8	10	8	9	7
Papayas												
Cucumbers	-	-	-	1	11	21	22	21	17	5	1	1
Sweet/peppers	3	3	2	2	3	12	23	21	19	3	2	7
Tomatoes	4	3	4	3	4	3	15	18	22	14	6	4
Pineapples	6	6	4	3	4	5	8	8	19	9	14	14
Water/melons	-	-	-	-	2	4	6	9	17	25	33	4
Canteloupe	-	-	-	-	3	9	8	12	24	25	14	15
Oranges	-	-	-	1	13	14	5	25	11	25	6	-
Grapefruit	-	-	-	-	20	50	20	10	-	-	-	-



## H. Bahamian Competitiveness

The positioning of Bahamian competitiveness as a location to produce for the local and foreign market will have to be on the basis of at least factors which face into two categories, the supply driven ones, and the market competitiventss oriented ones. They are as follows:-

- . Supply driven ones.
  - the investment environment
  - the cost of farm labor
  - the technical capability
  - the economics of the prescribed areas for each

agricultural activity.

- . The Market oriented ones are:-
  - Domestic prices
  - FOB prices
  - Shipping logistics

Prices for Bahamian agriculture products are comparable with similar imports as set out in Table - 24.

TABLE - 24: THE BAHAMAS: COMPARISON OF WHOLESALE PRICES  
LOCAL VERSUS IMPORTED PRODUCTS  
IN \$, ON OCTOBER 28, 1988

SELECTED PRODUCTS	UNIT	(1) CIF PRICE	(2) DUTY	(3) LANDED PRICE	(4) PRODUCE EXCHANGE PRICE	(5) 4 AS % OF 3
Hard ripe tomatoes	lb	0.51	0.13	0.64	0.46	72
Grade 1 cabbage	50lb carton	14.08	1.91	15.99	16.0	100
Persian limes	100-125 per box	13.80	1.33	15.13	15.16	103
Okra	lb	0.75	0.26	1.01	0.60	59





Locally produced crops are priced competitive mainly due to government subsidies on boxes and on the Produce Exchange operation, and also because of the high duty charged on imports.

Bahamian computed FOB prices are 7% and more higher than FOB prices from Central America. It is however assumed that the Bahamas could alleviate its export price disadvantage with its advantage in shipping cost.

The environment for investment in agriculture in the Bahamas is a mixed one. The favourable aspects are:-

- . There is an effective tariff ranging from 32% to about 200% to protect the local producer in the domestic market.
- . There is a licensing system in place to protect local products from imports whenever domestic supply is adequate.
- . There is no income tax on profit.
- . Land is available at concessionary rental rates.

THERE ARE HOWEVER, 3 MAIN IMPEDIMENTS TO INVESTING IN AGRICULTURE IN THE BAHAMAS. THEY ARE:-

- (1) THE NEGATIVE IMAGE THAT THE BAHAMAS IS NOT A SUITABLE LOCATION FOR INVESTING IN AGRICULTURE
- (2) THE WEAKNESS OF LAND ADMINISTRATION WHICH RESULTS IN UP TO 10 YEARS WAITING FOR GETTING LEASED LAND
- (3) THE GENERAL LACK OF INSTITUTIONAL INFRASTRUCTURE TO SUPPORT AGRUCULTURE

### Image

There are two major factors attributing to the weaker image of the Bahamas as suitable location for the investment in agriculture. They are the comparative cost of farm labour and successful international promotion and positioning of the Bahamas as one of the leading locations for service sector activities such as tourism, offshore banking, captive insurance and casinos.



BAHAMIAN AGRICULTURE WILL HAVE TO INTRODUCE HIGHER TECHNOLOGY IN FARMING TO INCREASE WORKER PRODUCTIVITY AS A TRADE OFF FOR HIGHER WAGES.

The cost for farm labor is much higher than in other prime Caribbean countries for foreign investment in agriculture and for export markets. For example, the labor rates are two to three times higher than they are in Jamaica and the Dominica Republic as illustrated in Table - 24.

TABLE - 24: THE BAHAMAS: COMPARATIVE WAGE RATES IN THE AGRICULTURAL SECTOR.

AVERAGE WEEKLY WAGE RATES IN \$, 1988			
JOB	THE BAHAMAS	JAMAICA	DOMINICAN REPUBLIC
Farm hand	85.0	22.70	23.75
Poultry worker	110.0	27.27	27.95
Handyman	110.0	35.0	42.0
Technical assistant	158.0	44.0	58.0

Sources (a) BAIC for Bahamian wages  
 (b) Mission Estimates  
 (c) Research on Jamaican and Dominican rates

Land Administration

Easy access to government owned land will be the main driving force responsiveness to the significant marketing opportunities in the Bahamas and in Miami; while land is in abundant supply it is not easily available on a formal basis to farmers. Most farmers are producing on smaller acreages because they are on the waiting list for lease land for 10 years and more. The mission estimates that if land administration could be improved the number of farmers in Abaco and other larger islands could double, and production by small farmers could quadruple.

The second land related driven factor is the economics of the locations designated for specific agricultural activities. Based on the screened products set out in Table export crops should be concentrated in the North due to the following:-

- . Land is in a more advance state of readiness.
- . The requisite shipping logistics are more suitable.
- . They are more appropriate for irrigation and high technology agriculture.



The South should concentrate on goats and sheep for which there is a very large market. The main reasons are:-

- . The infrastructure required for goats and sheep is relatively minimal in the sparsely populated islands.
- . The terrain is suitable for them.
- . The shipping logistics is less tedious. For example, they could be shipped lived.

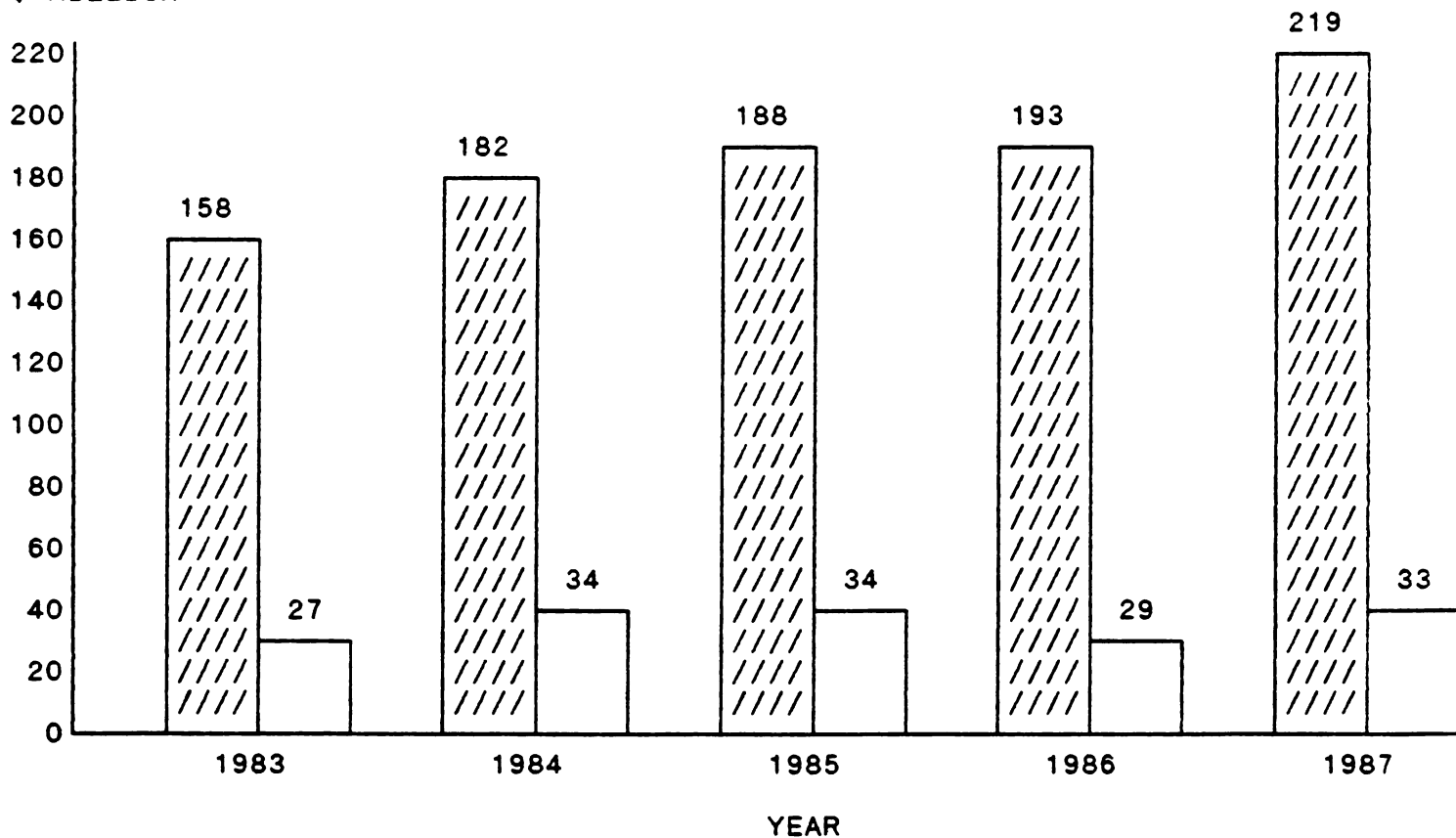
#### I. OUTLOOK



The value of the market for food in general has been growing at about an average of 8% annually between 1983 and 1987 (see exhibit-8), while inflation has been rising at 4.89 in the same period. Consequently there has been a real increase in the growth of the market by just over 3% annually. The growth has been driven mainly by the buoyancy in the tourism industry and the increase in real per capita income. However local production has not improved its share of the market. It has actually declined from 18% in 1984 and 1985 to 15% in subsequent years mainly because of stagnation in domestic output.

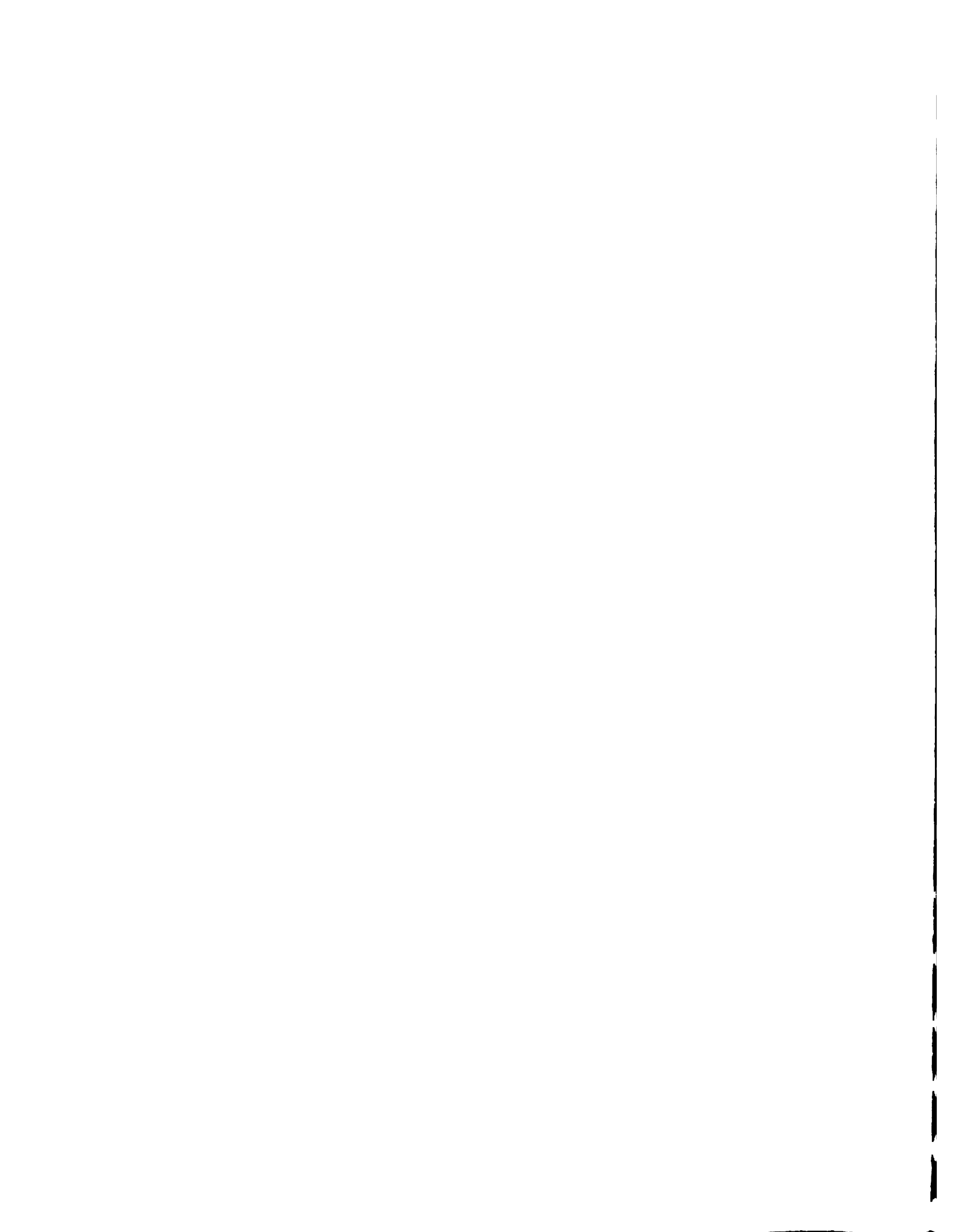


Exhibit - 8: THE BAHAMAS: GROWTH RATE IN THE MARKET FOR FOOD, AND THE SHARE CONTROLLED BY LOCAL PRODUCTION (1983 - 1987) IN \$ MILLION.

\$ MILLION



LEGEND:  - - TOTAL MARKET  - - DOMESTIC SUPPLY





#### 4. REQUIRED MARKETING SUPPORT PROGRAM

The preceding analysis imply that a comprehensive marketing support program needs to be executed to strengthen the Bahamian agricultural sector in six key areas: market information services, field support services, shipping, produce exchange services, community based sales services and export promotion. Each area of required support is discussed in the sub-sections which follow.

##### A. Market Information

All centers of activities in the sector need improved market related information systems to support more strategic decision making and also to determine more effective marketing and sales promotion programs. The key beneficiaries of such an information network are; farmers, packing houses, the Department of Agriculture, the market development committee, the Produce Exchange, community based marketing outlets, brokers shipping lines, vendors, wholesale, retailers hoteliers and restaurateurs.

The information systems/network should be capable of providing the following:

- . Primary data from the farming community for example:
  - Production intentions by: activity, acreage and island
  - Month or season
  - Production last month, or season by crop, variety acreage, and island.
  - Expected performance by: volume of output, yield per acre, distribution of output by grade,
  - Harvesting timetable by products, volume, grade island
  - Planned market designation for outputs by: product, season, and island
  - Present marketing arrangements with exporters, brokers, retailers, Produce Exchange by product, volume month seasoned island
- . Primary data from the packing houses/extension services personnel
  - number of active farmers by: season, product
  - estimated production by season, based on sample surveys by: product, variety, island



- Grading performance by production, season activity island.
- Projected yield by activity and island
- Projected output levels by goods, product and island
- Distribution of production units by size, for each activity and by island
- . Primary data from the Department of Agriculture
  - Weekly volume of produce approved for importation by market segment
  - List of importers and individual volume of imports
  - Sources of foreign supply for imports
- . Primary data from business communities, vendors, brokers, supermarkets, restaurants etc.
  - Periodic requirements by product, product specifications and lot size for each delivery
  - FOB, CIF, and landed prices being quoted for imported produce
  - Prevailing and projected wholesale and retail prices by product, variety and grade
  - Secondary data from Market Development Committee
    - Monthly average prices for local and imported items
    - monthly demand for produce from each market segment
    - Monthly landed, CIF and FOB prices
- . Secondary data from the Agriculture Department
  - Monthly output by produce and island
  - Annual yield by acre per activity and island
  - Number of active farmers by island
  - Monthly volume of each product approved for importation by market segment: vendors, brokers, wholesalers, hotels and restaurants



- . A primary data form Produce Exchange
  - Spoilage by product, farm and packing houses
  - Projected inflow of produce
  - projected demand supply situation
- . Primary data from farmers associations
  - Registered membership by island
  - Active membership by island
  - Estimated production in progress by activity and island
  - Average farming unit by activity in non progress by island
  - Price expectations by product by season
- . Analytical data to be prepared and disseminated by the Produce Exchange
  - Projected monthly output and price implications by product
  - Market shares by product (local versus foreign suppliers)
  - Projected monthly supply and demand situation.
- . Dissemination of information:
  - Public education programs for farmers
  - Press releases
  - Radios and T.V. programs
  - The use of extension service to educate farmers

Exhibit - 6 schematic illustrates how the proposed information network could work among the various agencies engaged in the marketing of agricultural produce.

The information component of this project will be executed by the Ministry of Agriculture with the main collaborative agencies being: the Produce Exchange.

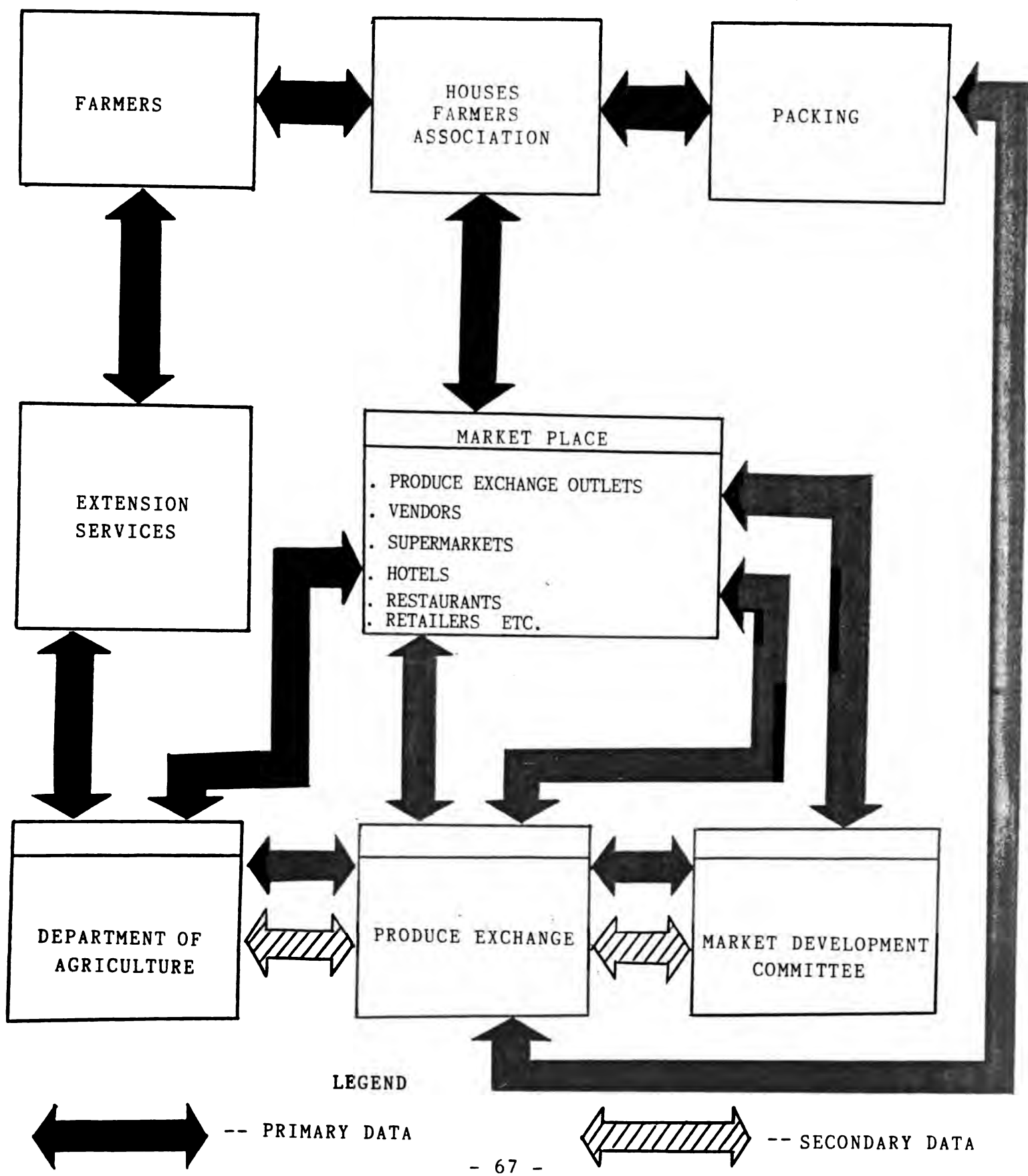
#### B. Field Services (Packing Houses)

The field services component of the project comprises 4 main activities which will be executed by the Produce Exchange. Those activities and their respective descriptions are set out below:

- . Facilitation information services in the field
- . Installation of grading facilities
- . Expansion of packing area
- . Upgrading of cold storage



EXHIBIT - 6 THE BAHAMAS FLOW AND USAGE OF PROPOSED INFORMATION NETWORK FOR AGRICULTURE.



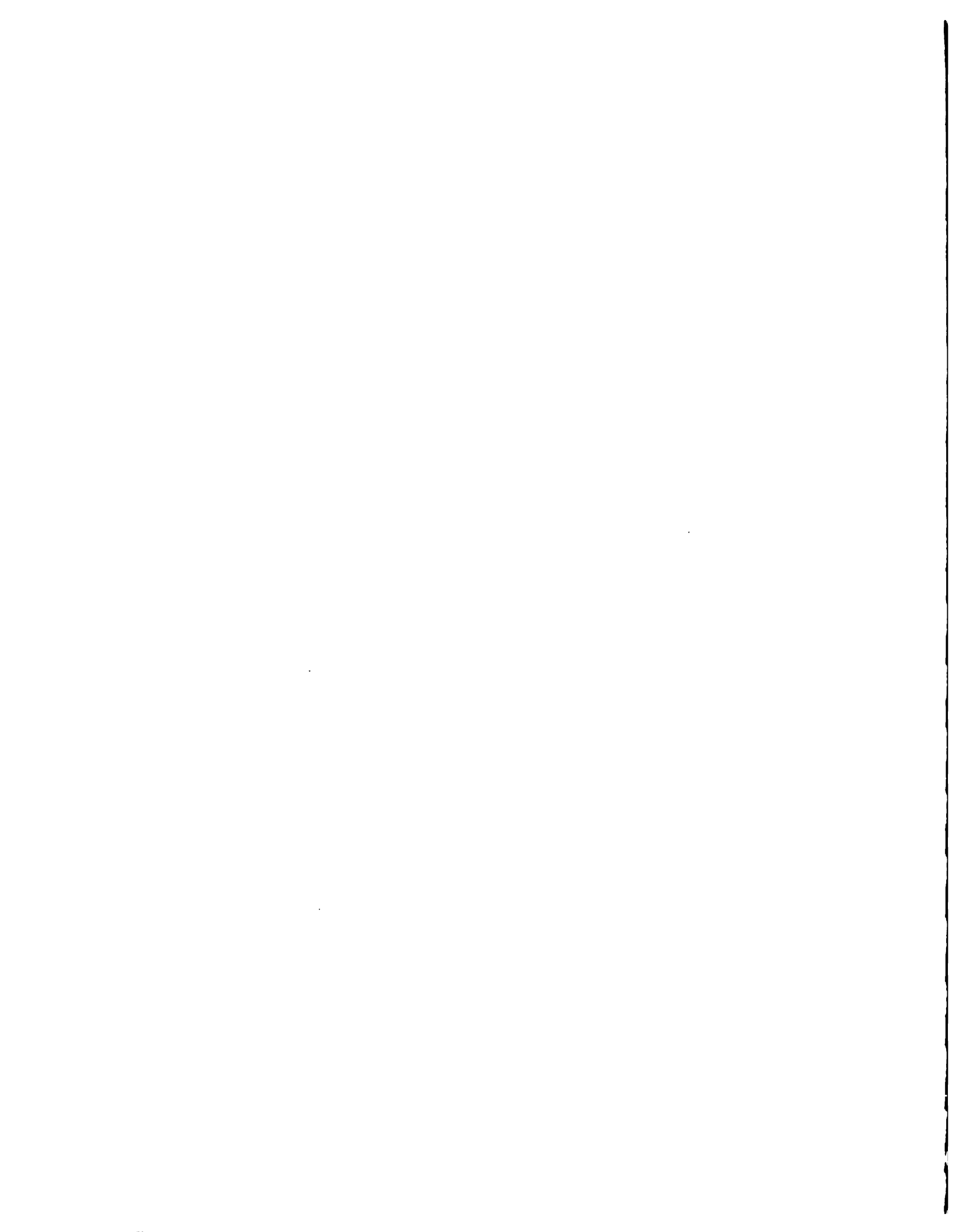




- . The packing housing will be used as the main contact between farmers and the Produce Exchange regarding matters on marketing. The facilities at the packing houses will be extended to accommodate one person to compile information from farmers or disseminate it to them.
- . New grading facilities with the capacities to handle about 2.5 tons of produce per hours per unit
- . Expansion of packing areas in the packing houses will be necessary. The expansion will be about 1,000 sq. ft. per unit.
- . The cool storage will have to be upgraded in packing houses. Each unit presently has the capacity for only about 600 tons per year whenever they work. It is being proposed that new cooling units be installed to accommodate at least 2,000 tons of fresh produce per year.

The packing houses will operate on a semi-autonomous or decentralized basis with the following organizational and financial features.

- . The organizational features should include:
  - A localized management board represented by farmers, community leaders, the financial community the extension services, shipping services providers, and the officer-in-charge of the packing house
  - The packing house should be able to execute its own corporate program
  - It should be an operating division of the "New Produce Exchange
- . The service delivery and related arrangements should include
  - Provision for a wider range of marketable services to the farming community. This includes: sale of agricultural input, provision for grading, packing and storage services, and brokerage services.
  - It should continue to provide its traditional range of services to the socio-economically disadvantaged or small farming clients at no charges
  - It should operate cost-recovery program of services for large scale/commercial farmers. This will help to strengthen the financial viability of the unit.



### C. Shipping

The main concern is the high rate of spoilage among produce in transit mainly transported by the mail boat. These boats virtually enjoy a monopoly in the provision of transport services for the Produce Exchange. However, as the Produce Exchange level of participation in the distribution of fresh food declines, the boards lose its market share. Consequently, most private players in the fresh foods market ship their produce by containerized boats.

This project component assumes that there will be a gradual shift to containerized cargo especially from the Northern islands. The main driving forces will be:

- . Northern islands have large volumes to achieve cost effective containerized services
- . The physical infrastructure in the Northern islands are adequate to accommodate containerized cargo.
- . Larger farmers who are working in close collaboration with private sector players in the market place, on an increasing basis are increasingly using refrigerated containerized freight services.

In view of the foregoing, the shipping services support component of the project is being designated to support the mail boats and initiatives to facilitate containerized cargo. The specific elements are:

- . A line of credit should be established to support the upgrading of mail boats from the Southern islands, with cool storage and handling facilities
- . Small roll-on-roll-off facilities should be built where it is practicable and viable, to facilitate containerized cargo to be loaded on chartered ships or regular commercial shipping lines. This service would be restricted to the Northern islands.
- . Procurement and operation of a barge, if it is technically and financially viable to do so on a dedicated basis to selected Northern islands.



#### D. Produce Exchange Services

This is the largest component of the project. A "new Produce Exchange" is proposed. It should have the following features.

- . It should provide increased storage capacity to meet the anticipated fourfold increased to domestic supply of fresh fruits and vegetables. The storage infrastructure is very inadequate for expanded production mainly because 73% of the fresh fruits and vegetables trade are imported in small lots on a frequent basis. For example, the weekly cold storage capacity required for fresh fruits and vegetables whenever the Bahamas achieves self sufficiency in these produce is about 547,000 cu.ft while only about 177,000 cubic feet are available.
- . Grading and packing of fruits and vegetables since there are no private facilities to perform these services. The existing supermarkets have very limited facilities for small packaging. They however do not have the space to handle large lots. Grading is not carried out in the private sector on any systematic scale.
- . Storage, and clearing facilities to handle the regular functions of the existing Produce Exchange ie. grading, storage, ripening, and distribution.

The Exchange should operate as a service providing facilities to the private sector on a cost recovery and concessionary rate basis as follows.

- . Cost recovery services should be provided to vendors, wholesalers, hoteliers, restaurants, supermarkets, brokers and large scale farmers. The services will include:
  - Grading of fresh fruits and vegetables
  - Storage of fresh fruits
  - Packaging of fresh fruits and vegetables at the packing houses
  - Ripening of fresh fruits
  - Office services especially to brokers
  - Rental of storage space
  - Market research



- . The new Produce Exchange should continue to provide services to small scale farmers, and farmers from the economically disadvantaged Southern islands as part of its on-going subsidized support to the sector.
  - Purchasing
  - Grading
  - Market guarantee scheme
  - Public education and product development and improvement related training
  - Transportation from packing houses to Produce Exchange

The modified range of services that the Produce Exchange must provide requires it to locate to site fully integrated into the distribution and residential communities; where the following attributes relevant to the adequacy and quality of its services, as well as cost-effectiveness could be maximized. Those attributes are:

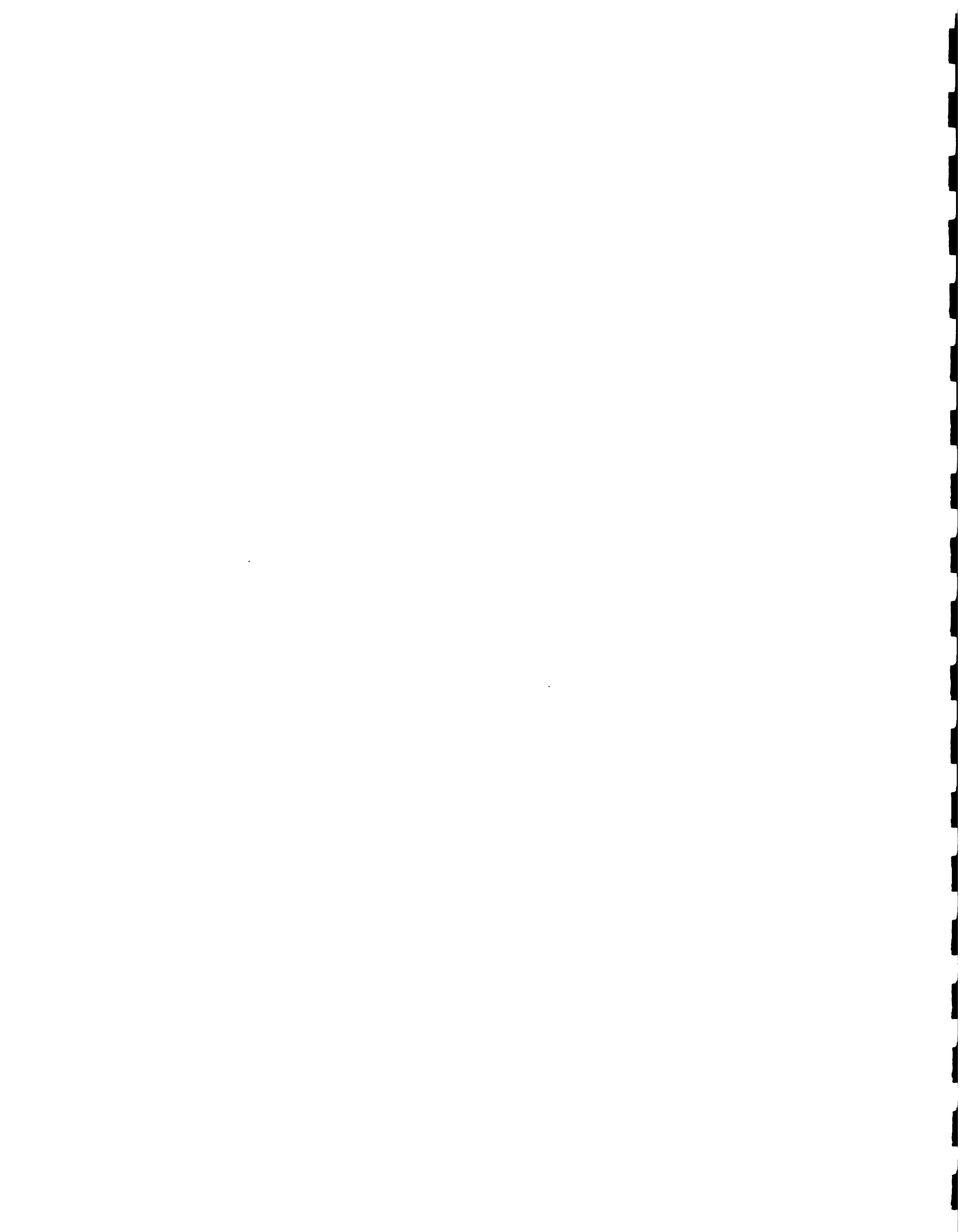
- . Convenience to supermarkets and communities
- . Adequate land space with the ratio of land to build being about 5:1 to generate the following benefits
  - Efficient loading and unloading
  - proper storage of wastes
  - Adequate parking of customer vehicles
- . Easy access by road

There are two candidate locations for the proposed new Produce Exchange: Soldier Road Industrial Park and Gladstone Road Industrial Estate.

SOLDIER ROAD PROVIDES ADVANTAGES IN CONVENIENCE AND ACCESSIBILITY. THE DESIGNATED LAND AREA IS ALSO ADEQUATE FOR TRAFFIC EFFICIENCY AND FOR FUTURE EXPANSION. IT IS THEREFORE A MORE ADVANTAGEOUS LOCATION THAN GLADSTONE ROAD WHICH IS THE PROPOSED ALTERNATIVE LOCATION.

The Exchange should be structured to have 4 operational focus. They are:

- . Packing house operations
  - Grading
  - Purchasing
  - Storage shipping
  - liaison with farming community
  - Data compilation



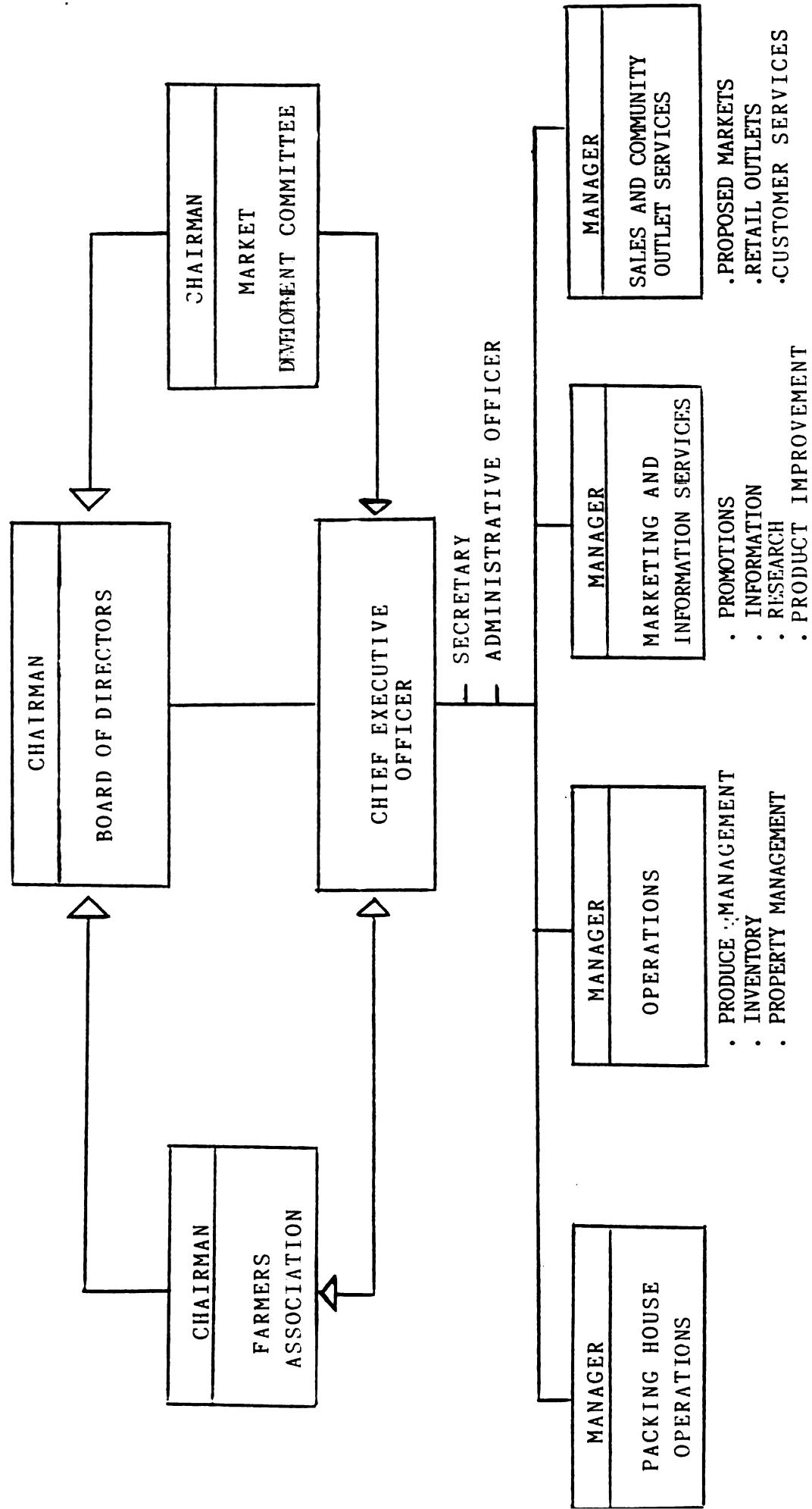


- . Marketing and information services such as
  - Promotions
  - Information
  - Research
  - Product improvement
  
- . Operations such as:
  - Produce management
  - Grading, packaging, storage, rental
  - Inventory management
  - Property management (Produce Exchange)
  
- . Sales and community outlets
  - The proposed markets
  - Customer services

Exhibit - 7 schematically sets out the requisite organizational structure.



EXHIBIT - 7 RECOMMENDED INSTITUTIONAL STRUCTURE OF THE PRODUCE EXCHANGE NETWORK

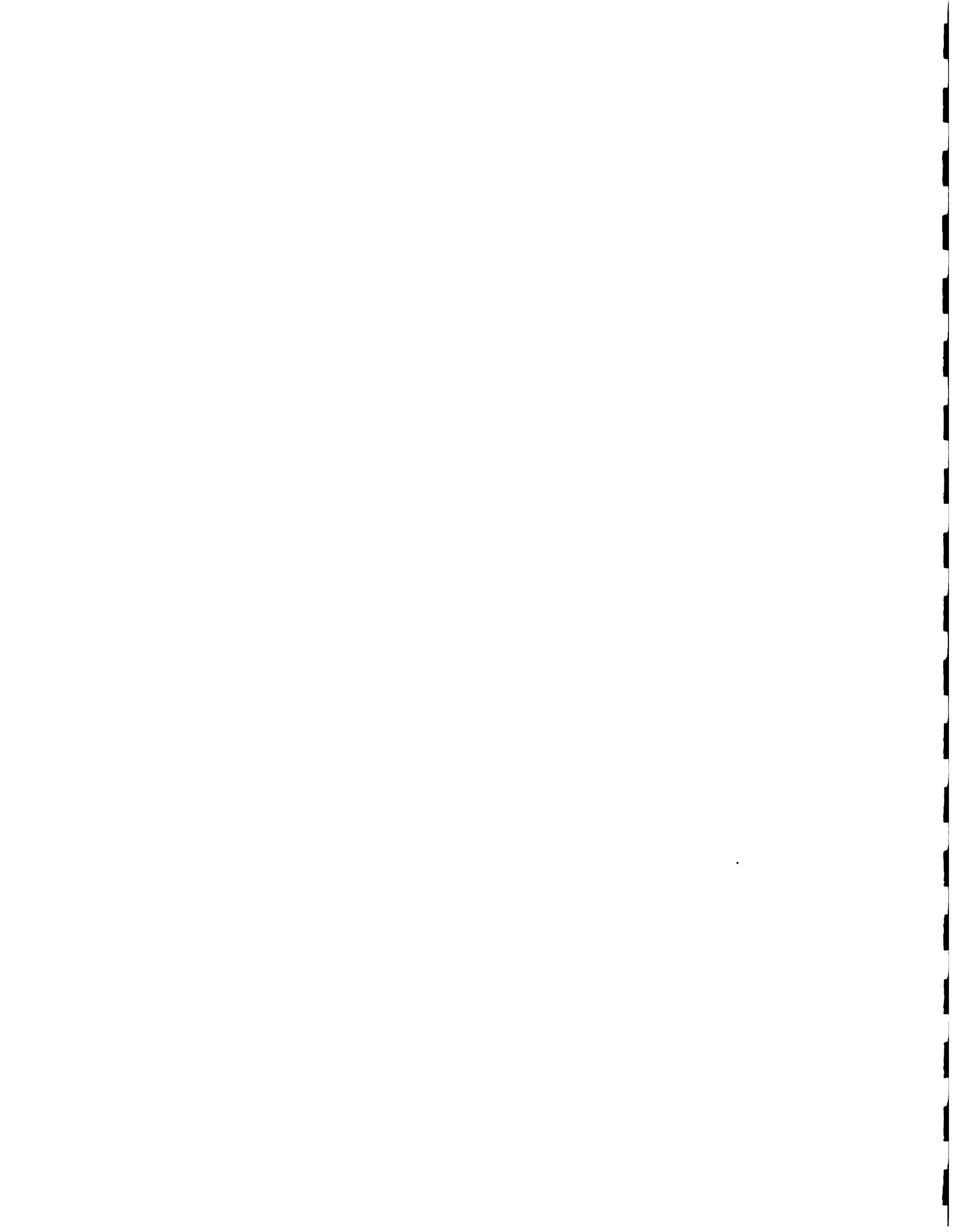




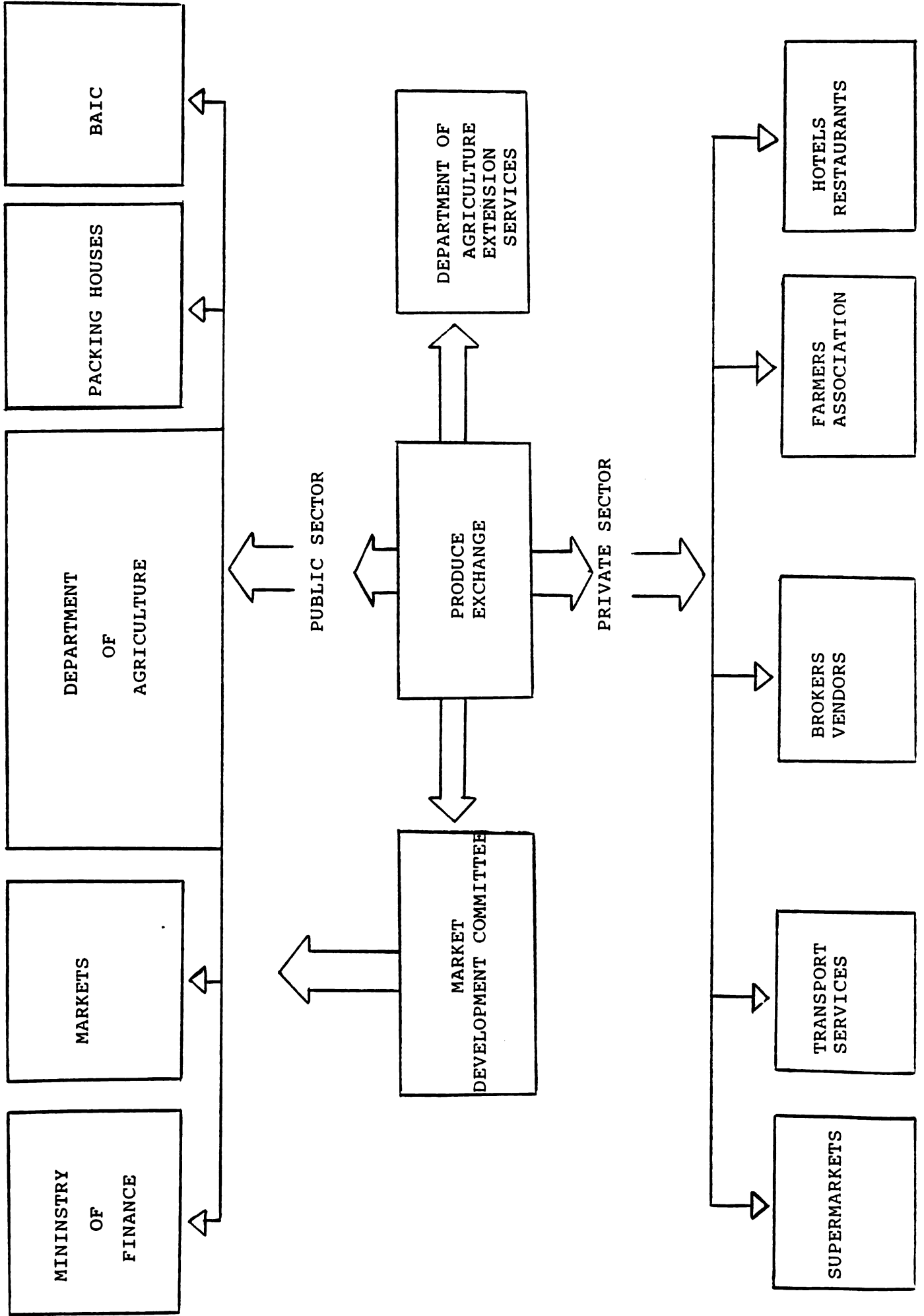
The Produce Exchange should work in close collaboration with government, the farmers and the market place through three bodies. The Board of Directors, the Farmers' Association and the market Development Committee.

- . The Board of Directors, which should be comprised of the representatives from the Department of Agriculture, the Farming Committee, BAIC the Hoteliers Association and the Vendors' Association. This composition of the Board will generate very significant market related benefits. They include:
  - Integration of the services with the key players in the fresh produce market
  - It will improve the positioning of local produce in the market place, consequently it will become easier to access hotels, restaurants and the large supermarkets.
  - The Exchange will benefit from the market place experience and knowledge of the private sector.
  - Information dissemination will be more effective
- . The Market Development Committee should broaden its membership and role as follows.
  - The membership should include representatives from the Private Sector
  - The role should be broadened to include: guidance on product quality improvement, exchange of information on market conditions, review of the services of the Exchange, review of production condition and trade and tariff measures.

The recommended organizational framework and collaboration puts the Produce Exchange in the centre of the agricultural sector and the markets as illustrated in Exhibit - 8. Its marketing efforts will therefore be very effective. Similarly all of the critical market and production related issues will be exposed to a wide cross section of experience and guidance in regards to strategies for addressing them.



RECOMMENDED INSTITUTIONAL FRAMEWORK FOR MARKETING FRESH PRODUCE IN THE BAHAMAS







### **E. Distribution Outlets**

Distribution outlets will be required to accelerate on the penetration of the market with domestic produce. Such outlets should be located in communities with the following characteristics.

- . The community is very centralized
- . The community has a large and growing middle income population
- . The community is easily accessible by bus

Exhibit - 10. Its marketing effort will therefore be very effective. Similarly, all of the critical market and production related issues will be exposed to a wide cross section of experience and guidance in regards to strategies for addressing them.



Four outlets, will be required to support the market penetration effort of the Produce Exchange. They will be located in areas which satisfy the requisite community characteristics. The recommended locations are:

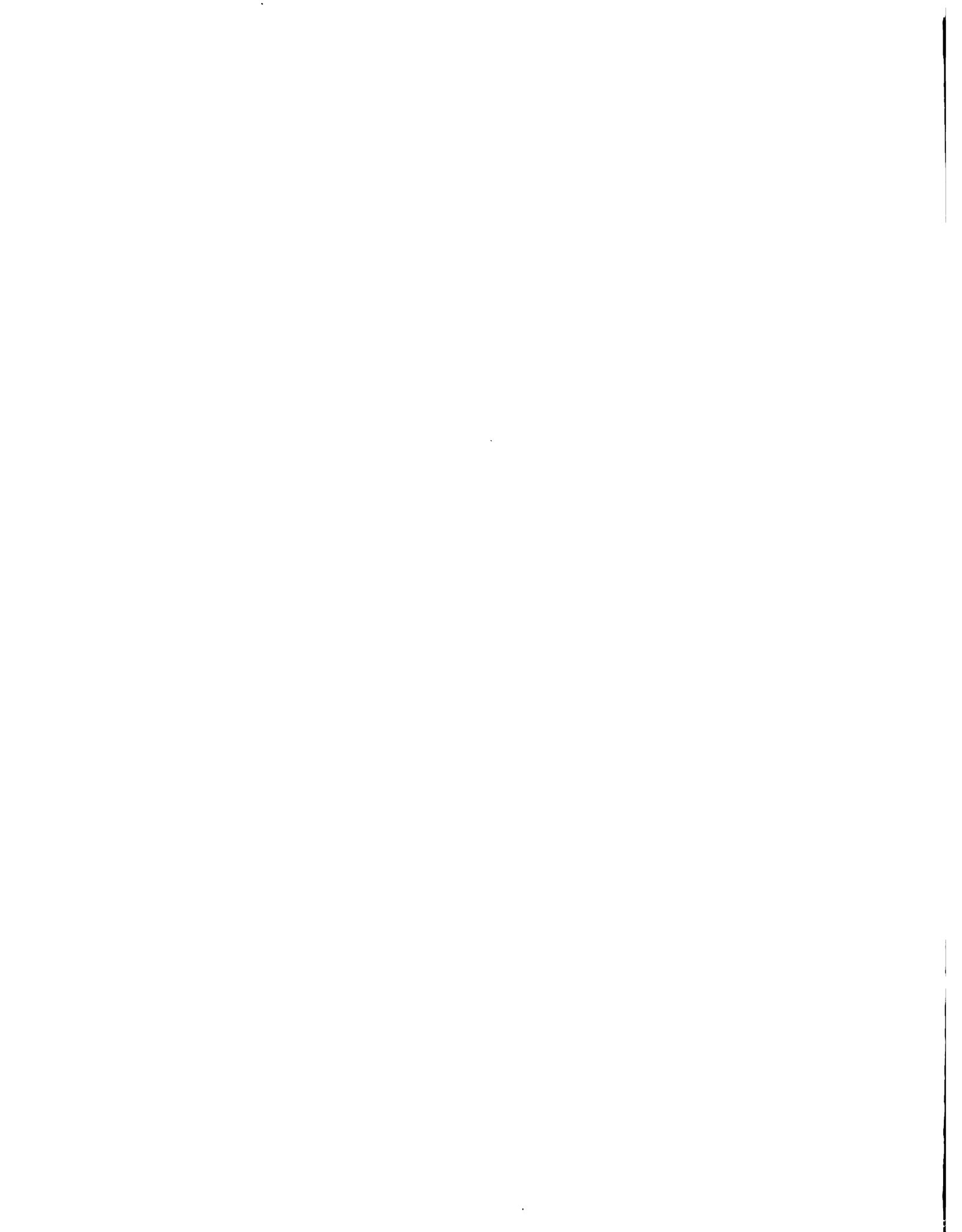
- . Elizabeth Housing Development Estate. There are over 400 newly constructed houses concentrated in single community which has no major food outlets.
- . Blue Hill Road. This location is highly populated. The community is already exposed to the farmers market there. Consequently there will be a captive market for fresh food.
- . Grand Bahama. This is a large market representing over 7,000 households. It will generate the following benefits to farmers in the Grand Bahama.
  - Farmers and vendors will be able to sell local produce at central location on a daily basis
  - The number of vendors will increase as a result of permanently available facility. Consequently there will be increased marketing intermediary to encourage expansion of agriculture in Grand Bahama.

THE EXISTING PRODUCE EXCHANGE IN GRAND BAHAMA DOES NOT SERVE THE LOCAL FARMING COMMUNITY, AND IS ALSO NOT COST EFFECTIVE AS AN OUTLET FOR PRODUCE SHIPPED FROM THE NASSAU BASED PRODUCE EXCHANGE, IT SHOULD THEREFORE BE TRANSFORMED INTO AN ALL WEEK MARKETING FACILITY.

The operation of the market should be under the day-to-day coordination of the sales and markets division of the Produce Exchange. The role of the division will be:

- . Maintenance of the facilities
- . Rental of the facility to vendors and farmers
- . Promoting the sale of the Produce Exchange products to the outlets.
- . Promoting the vendors' businesses in the outlet.
- . Promoting the sale of Bahamian produce in the outlet
- . Monitoring the performance of vendors on their leases/franchise in the outlets.

FROM THE FOREGOING THE ROLE OF THE PRODUCE EXCHANGE WILL BE THAT OF A PROPERTY MANAGEMENT AND SALES PROMOTION SERVICES WHICH WILL BE CONDUCTED ON A COST-EFFECTIVE BASIS.



## F. Export Promotion Services

Export agriculture is a highly complexed business which requires significant operating presence in the target market. For example Bahamas Star and Parker Brothers are successful export enterprises because of:

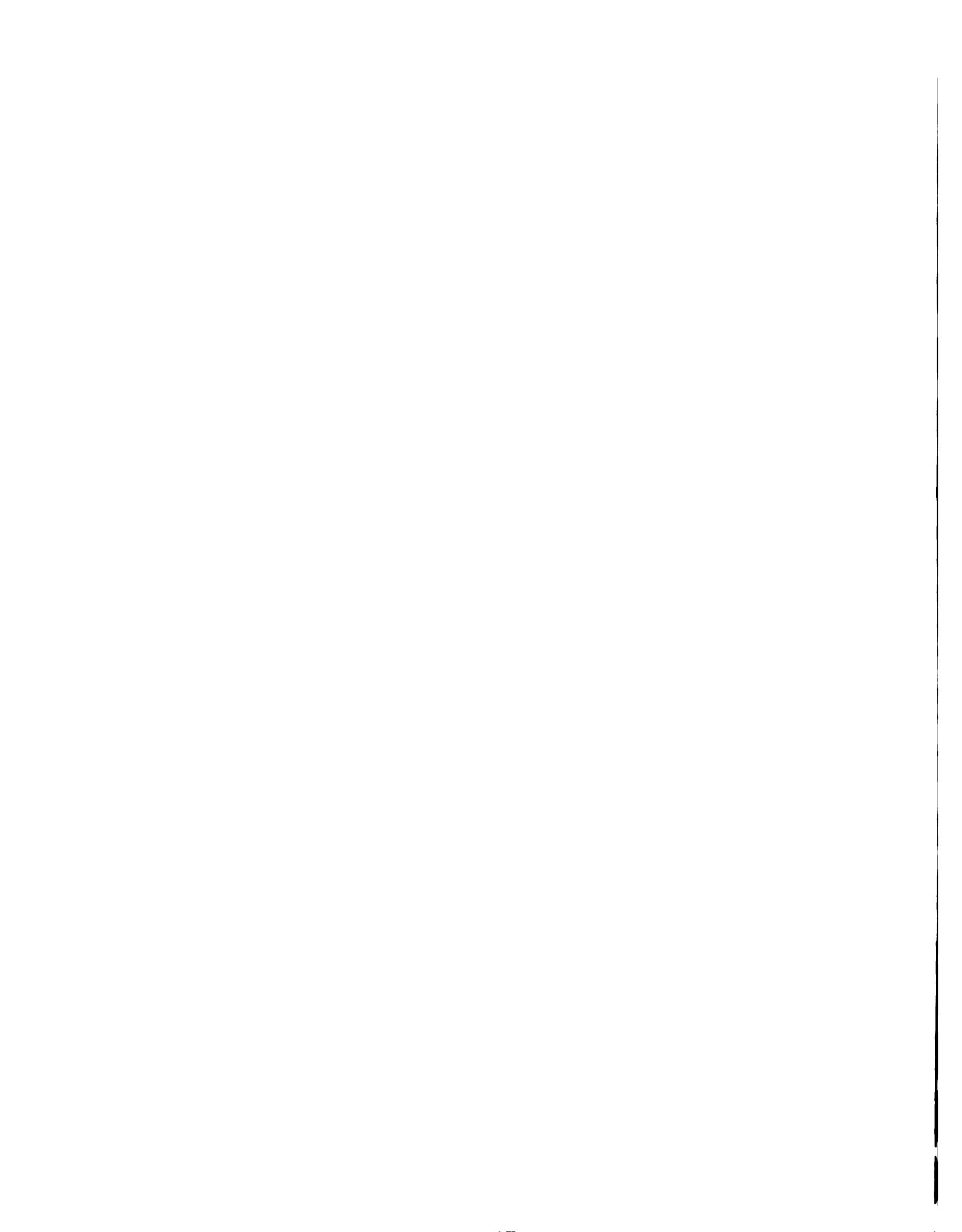
- . Significant operating presence in the U.S. market
- . Significant twining of U.S investment with local production resources such as management and the land

THE BAHAMIAN EXPORT AGRICULTURAL THRUST SHOULD THEREFORE BECOME AN INTEGRAL PART OF ITS INVESTMENT PROMOTION PROGRAM. THE BAIC SHOULD THEREFORE BE PROVIDED WITH THE NECESSARY INSTITUTIONAL STRENGTHENING SUPPORT TO BE ABLE TO COORDINATE FOREIGN/BAHAMIAN COLLABORATED INVESTMENT PROMOTION LED EXPORT AGRICULTURE.

The specific services which BAIC will need to perform include:

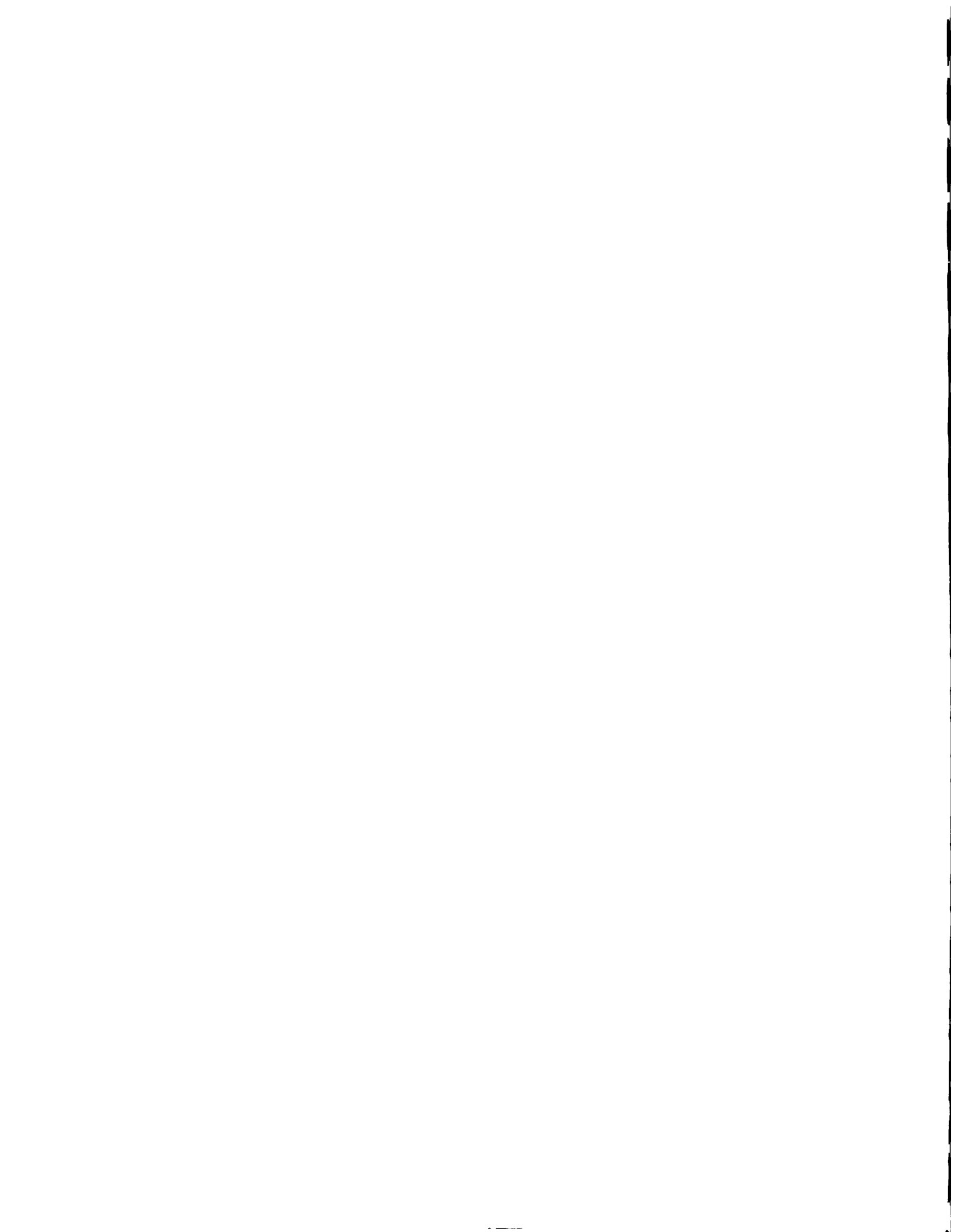
- . Identification and preparation of export agricultural projects
- . Export market research
- . Investor search
- . Execution of export promotion missions
- . Training in export marketing
- . Contract marketing
- . Provision of joint venture negotiation services
- . Development export promotion strategies on an on-going basis
- . Review the environment for export agriculture on an on-going basis

THIS PROJECT WILL HAVE TO INCLUDE A TECHNICAL ASSISTANCE COMPONENT TO ASSIST THE BAIC TO IMPROVE ITS CAPABILITIES TO PERFORM THE ABOVE SERVICES



ie focus of the technical assistance program should comprise.

- . Assignment of a short term export promotion expert to develop a market led program and organize and train BAIC personnel to execute it.
- . Identification and preparation of foreign/local investment led export opportunities
- . Preparation and execution of about four export promotion missions to the US East South Florida, Toronto, and London
- . Development of an export market information system, procurement and installation of equipment for the system and train BAIC personnel to execute it.





**G. Program, Budget and Benefits**

The program has six projects, namely:

- i. Improvement of field services (packing houses)
- ii. Development of marketing information services
- iii. Improvement to a boat transportation service
- iv. Establishment of a new Produce Exchange
- v. Establishment of community based markets
- vi. Improvement of the Export Promotions capability of BAIC

The capital budget for project is \$ 7.9 million. The details are provided in Table - 26 which follows.

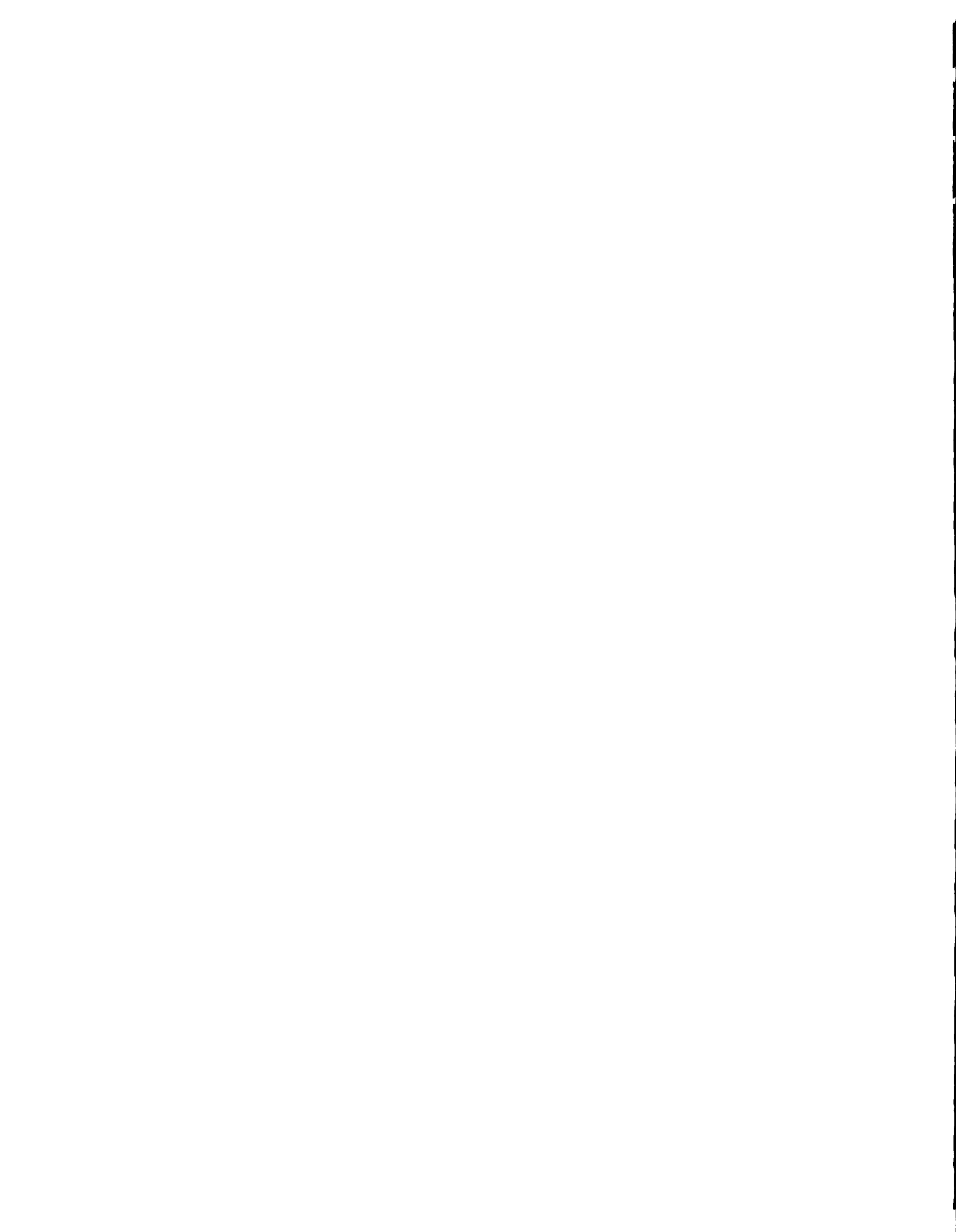


TABLE - 26 BUDGET FOR MARKETING COMPONENT OF GDB - IDB AGRICULTURAL SERVICES PROJECT IN \$000

<u>PROJECT/ITEM</u>	<u>SPECIFICATION</u>	<u>UNIT</u>	<u>UNIT PRICE \$000</u>	<u>TOTAL \$000</u>
1. <u>IMPROVEMENT TO FIELD SERVICE (PACKING HOUSES)</u>				
i. Construct an office to accommodate agricultural superintendent at packing houses	An office of 18x12 (216 sq.ft.)	sq ft	50	77
ii. Furnish office for agricultural superintendent	Desk/chair, file cabinet and waiting chairs			8
iii. Expansion of 7 packing houses	1,000 sq. ft. of additional space per packing house	sq ft	45	315
iv. Purchase and installation of grading machine	Capacity to handle 1-ton per hour per unit	7-units	90	630
v. Purchase and installation of cool storage	Each cooling facility should be about or 1,400 cu ft with capacity to cool 2000 tons per year	7-units	42	294
vi. Institution of central air-conditioning in packing houses	Cooling capacity for 4,500 sq. ft.	7-units	43	
<b>TOTAL</b>				<b>1,324</b>

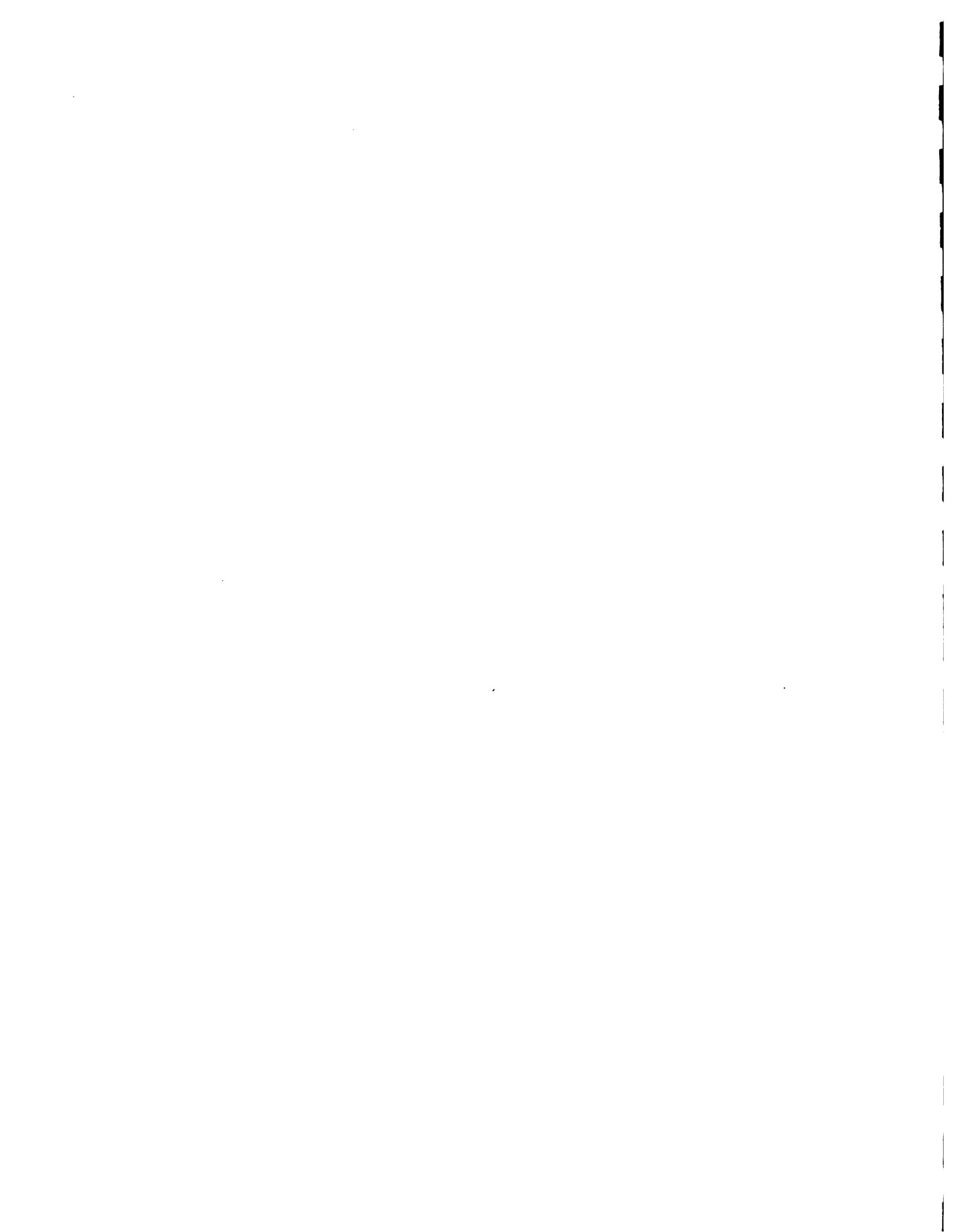


TABLE - 26 BUDGET FOR MARKETING COMPONENT OF GDB - IDB AGRICULTURAL SERVICES PROJECT IN \$000

PROJECT/ITEM	SPECIFICATION	UNIT	UNIT PRICE \$000	TOTAL \$000
<b>2. MARKET INFORMATION</b>				
i.	Purchase and installation of computer system for data storage and analyses	- Purchase and installation of one 386 system	48	48
		- Purchase and installation of one laser jet printer		
ii.	Purchase of 7-jeeps to transport data gathering field staff	7-four-wheel drive jeeps	12	84
iii.	Reimbursement of one systems expert to design information system and train personnel	One expert to work for one year. He/she should have 5 years experience in management information and on MBA	1-persons	84
iv.	Hire one communication expert for six months to conduct a public education for 300 farmers	Public education on: - the importance of market intelligence - agricultural product standards The expert should have at least 10 years experience	1-expert	10 per month 50

SUB-TOTAL

270

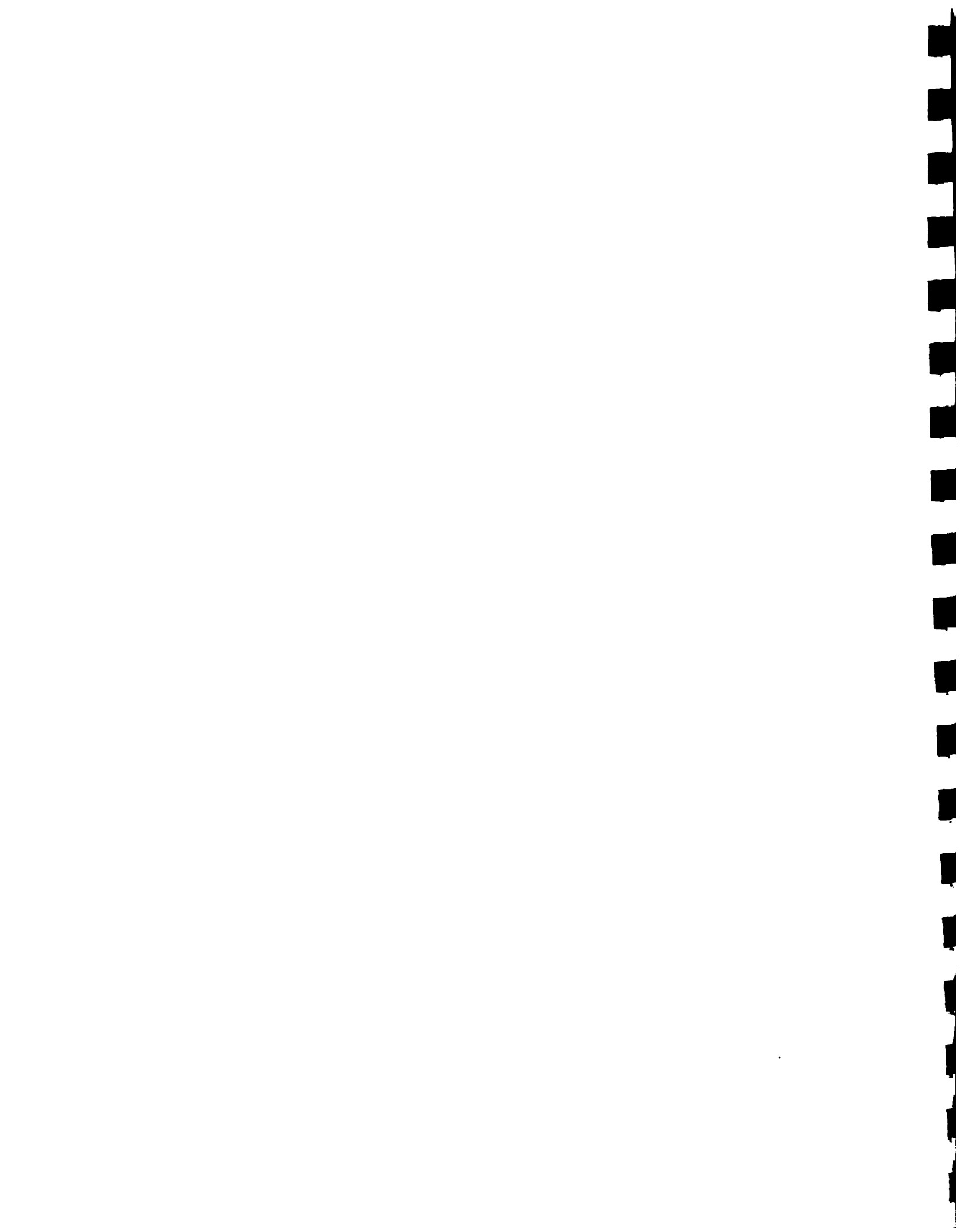


TABLE 26 (CONTINUED) BUDGED FOR MARKETING COMPONENT OF THE GDB - IDB AGRICULTURAL SERVICES PROJECT IN \$000

<u>PROJECT/ITEM</u>	<u>SPECIFICATIONS</u>	<u>UNIT</u>	<u>UNIT PRICE</u> <u>\$000</u>	<u>TOTAL</u> <u>\$000</u>
<b>2. MARKET INFORMATION</b>				
<b>(CONTINUED)</b>				
v. Development and execution of farmers' public education program	. Hold 10-one week seminars/workshops and farm tour in 10 different locations for	300 farmers	0.8	240
vi. Hire one marketing expert to develop and coordinate market outreach program to hotels, and restaurants	. Recruitment of one expert for 3 months . Material and promotional media	3 person month	8 30	24 30
<b>SUB-TOTAL FOR MARKET INFORMATION</b>			<b>\$000</b>	<b>294</b>
<b>GRAND TOTAL</b>			<b>\$000</b>	<b>564</b>





TABLE 26 (CONTINUED) BUDGET FOR MARKETING COMPONENT OF GDB - IDB AGRICULTURAL SERVICES PROJECT IN \$000

<u>PROJECT/ITEM</u>	<u>SPECIFICATIONS</u>	<u>UNIT</u>	<u>UNIT PRICE \$000</u>	<u>TOTAL \$000</u>
<b>3. SHIPPING</b>				
i. Procurement of a barge to assist with transporting containerized farm produce northern islands	It should have capacity to transport at least 20-20ft containers	each		400
ii. Establish a line of credit at the Bahamas Development Bank for 12 mail boat owners to access funds to install cool storage facilities on their boats	Each boat will require cooling facilities with average capacity of 20 tons, priority should be given to boats serving southern islands	12 boats	35	420
<b>TOTAL FOR SHIPPING \$000</b>				<b>820</b>

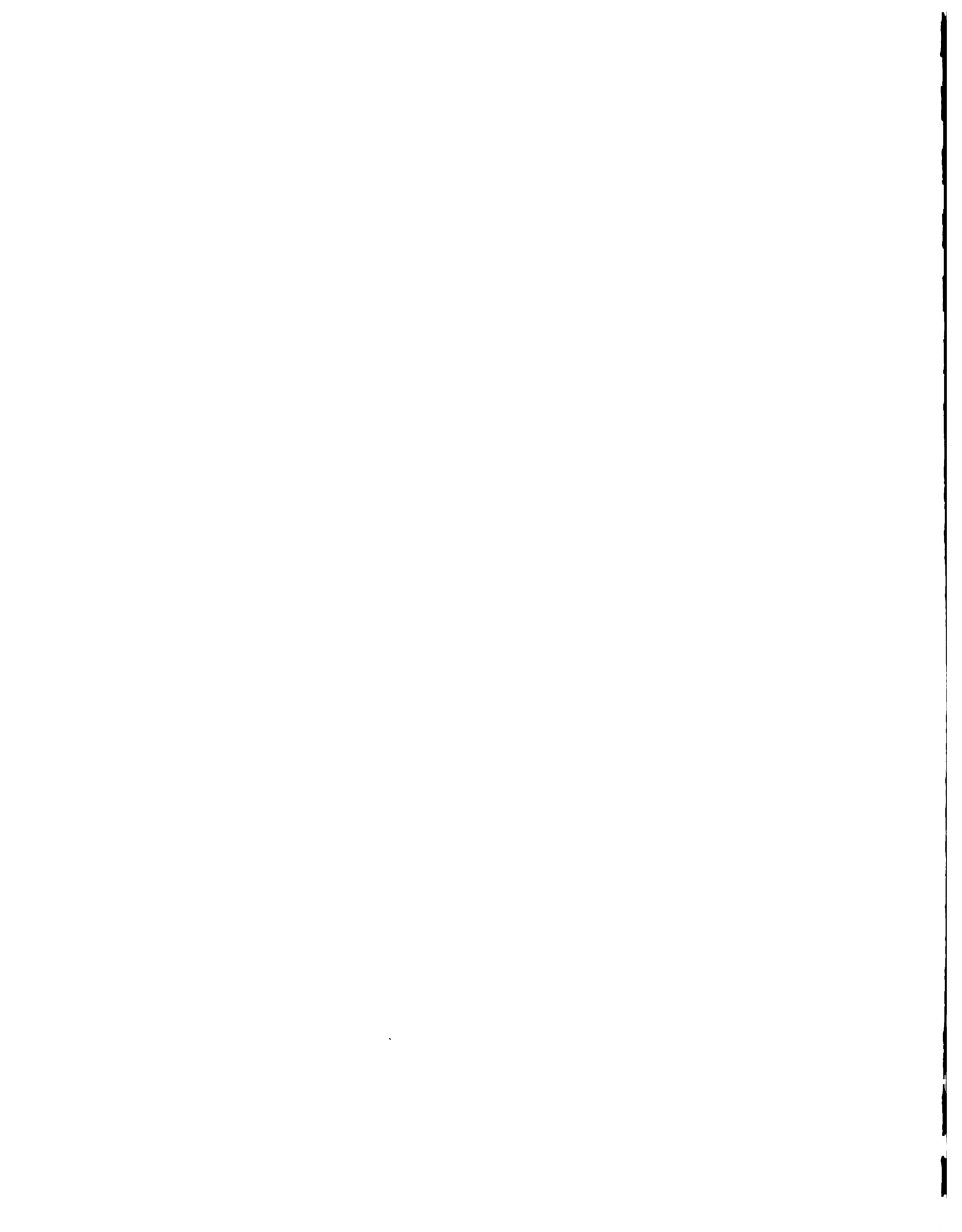


TABLE 26 (CONTINUED)

BUDGET FOR MARKETING COMPONENT OF GDB - IDB AGRICULTURAL SERVICES SECTOR IN \$000

<u>PROJECT/ITEM</u>	<u>SPECIFICATIONS</u>	<u>UNIT</u>	<u>UNIT PRICE \$000</u>	<u>TOTAL \$000</u>
<b>4. NEW PRODUCE EXCHANGE</b>				
i. Construction of new building	The building should be 50,000 sq.ft with the following features. - Central air conditioner - storage 28,500 sq ft			
	- Central office of about 2,000 sq ft	50,000 sq ft	58	2,900
	- Rental office space of 3,000 sq ft			
	- Grading and packing area of 2,000 sq ft			
	- Storage of rejects and spoilage for industrial use 2,000 sq ft			
	- Sales and delivery 1,500 sq ft			
ii. Purchase of two light loading fork lifts	Capacity to loading trucks and move pallets within the building		36	72
	Should be able to lift up to 16 ft high for overheads storage			
iii. Institutional of cool/cold storage	Approximately 14,000 sq.ft. or 168 cu ft to handle about 20,000 tons of Produce annually	14,000	23	322
<b>SUB-TOTAL \$000</b>				<b>3,294</b>

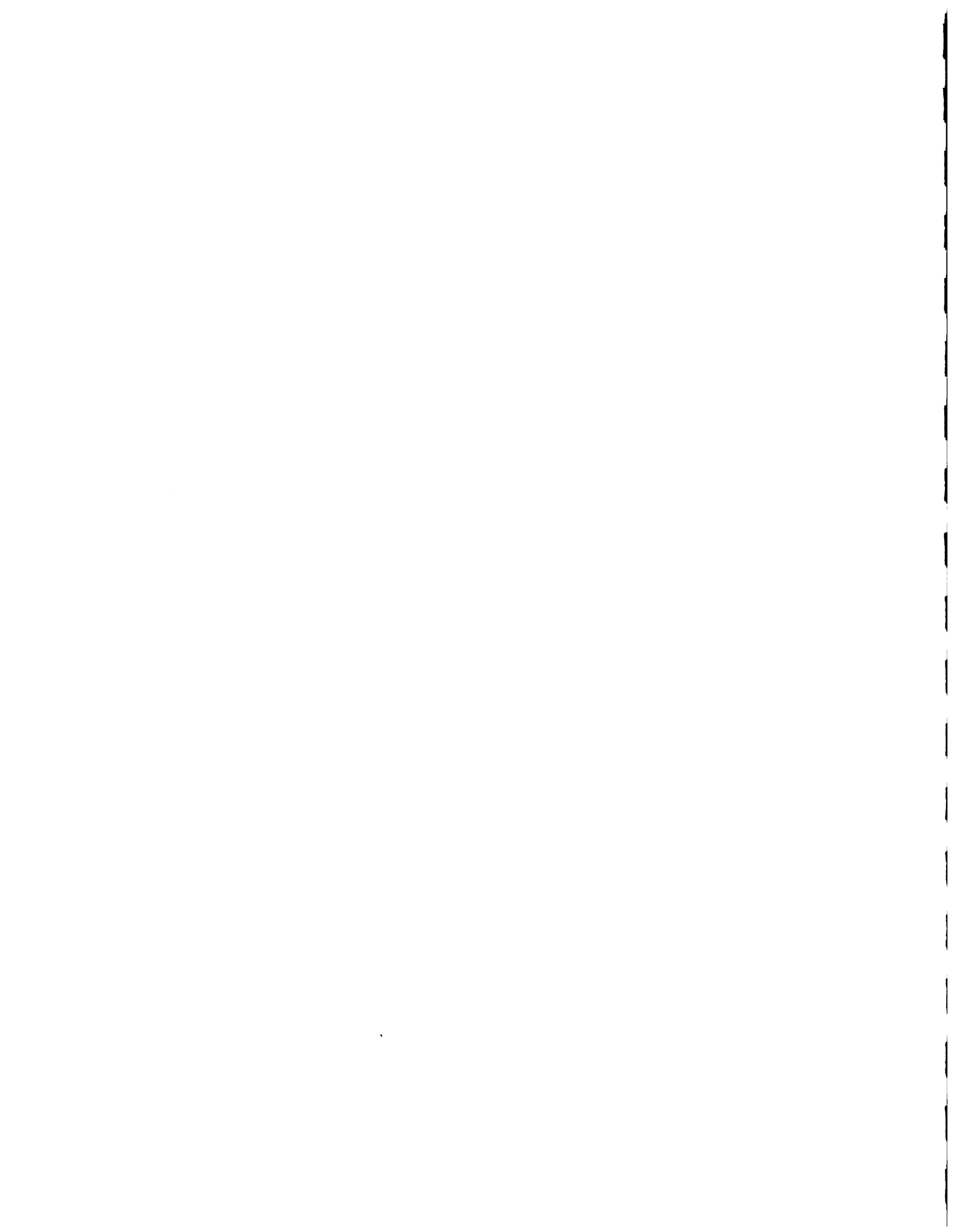


TABLE 26 (CONTINUED) BUDGET FOR MARKETING COMPONENT OF GDB - IDB AGRICULTURAL SERVICES SECTOR IN \$000

PROJECT/ITEM	SPECIFICATIONS	UNIT	UNIT PRICE \$000	TOTAL \$000
<b>4. NEW PRODUCE EXCHANGE</b>				
i. Construction of new building	The building should be 50,000 sq.ft with the following features. - Central air conditioner - storage 28,500 sq ft			
	- Central office of about 2,000 sq ft	50,000 sq ft	58	2,900
	- Rental office space of 3,000 sq ft			
	- Grading and packing area of 2,000 sq ft			
	- Storage of rejects and spoilage for industrial use 2,000 sq ft			
	- Sales and delivery 1,500 sq ft			
ii. Purchase of two light loading fork lifts	Capacity to loading trucks and move pallets within the building		36	72
	Should be able to lift up to 16 ft high for overheads storage			
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SUB-TOTAL				3,294

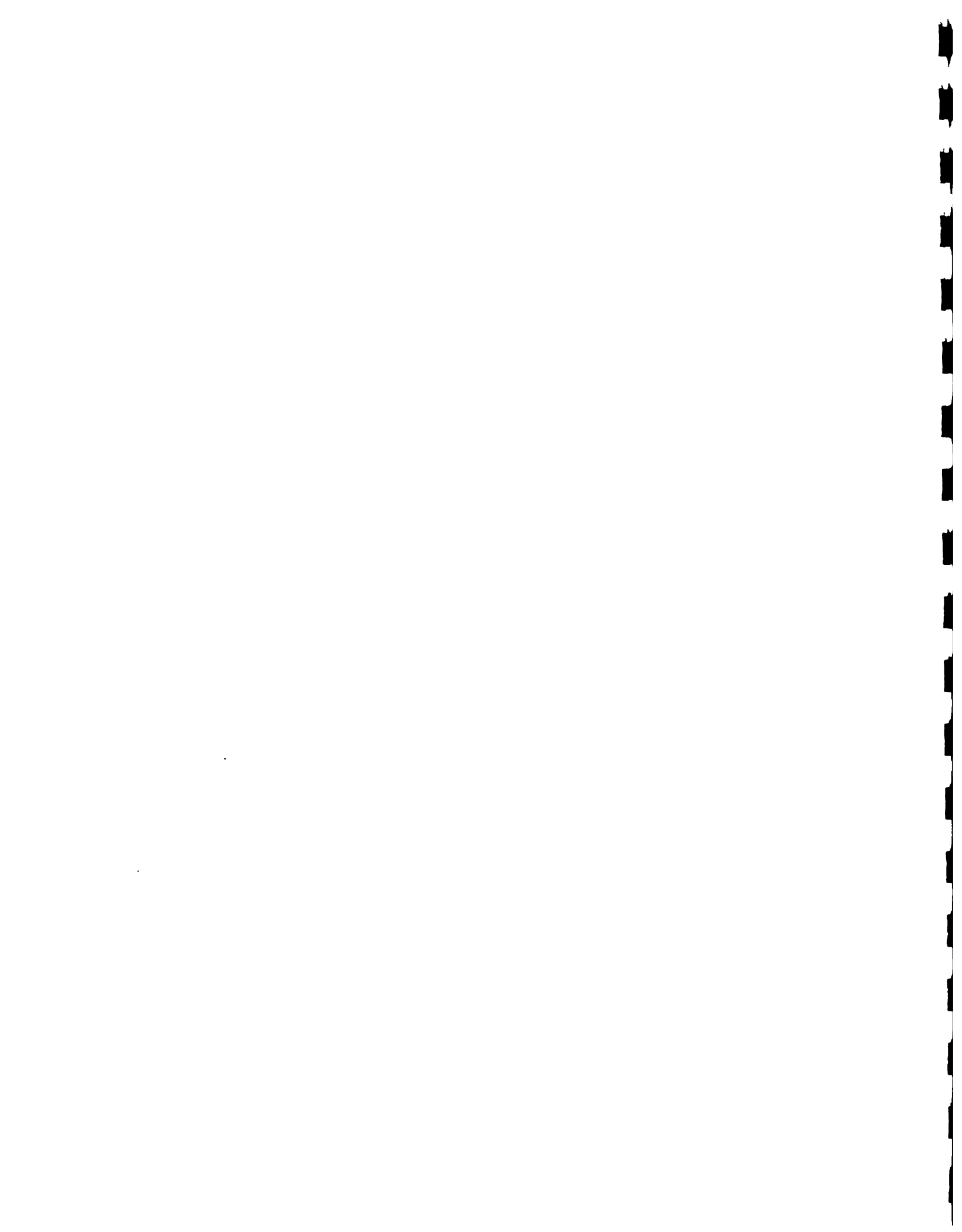


TABLE 26 (CONTINUED) BUDGET FOR MARKETING COMPONENT OF GOB - IDB AGRICULTURAL SERVICES SECTOR IN \$000

<u>PROJECT/ITEM</u>	<u>SPECIFICATIONS</u>	<u>UNITS</u>	<u>UNIT PRICE \$000</u>	<u>TOTAL \$000</u>
4. NEW PRODUCE EXCHANGE (CONTINUED)				
iv.(b) Purchase of 1-fork for loading and off . loading containers	It should be able to lift containers 20 and 40 ft	1	206	206
(b) Purchase of 12 used containers	- lift 20 and 40 ft containers	7		84
v. Purchase of 1-flat bed truck	It should have capacity to transport 40ft containers	1	55	55
vi. Purchase and installation of computer facilities to facilitate batching and inventory management and quality assurance management	A 286 system will be adequate	1	40	40
vii. Recruitment of a systems expert for 3 months	He/she should have at least 5 years experience and a professional degree	1	8/per month	24
viii. Purchase and install- ion of grading/ packing equipment	Capacity to handle 3 tons per hour	1	270	270
SUB-TOTAL			679	
GRAND TOTAL FOR PRODUCE EXCHANGE				3,973





TABLE 26 (CONTINUED) BUDGET FOR MARKETING COMPONENT OF GOB-IDB AGRICULTURAL SERVICES PROJECT IN \$000

PROJECT/ITEM	SPECIFICATIONS	UNIT	UNIT PRICE \$000	TOTAL \$000
<b>5. MARKET OUTLETS</b>				
i. Establish one market at Elizabeth Estate to accommodate 25 vendors	It should have the following features - 3,800 sq ft are for vegetables, meats and fish - An ice making machine - A cool room of about 2,000 cu ft	3,800 sq.ft	95	361
ii. Establish one market at Blue Hill Road, Nassau to accommodate 25 vendors	It should have same facilities as the proposed Elizabeth Estate market	3,800 sq ft	95	361
iii. Establish one market in Abaco to accommodate 15 vendors	It should have the following - 2,500 sq ft - An ice making machine - A cool room of about 1,000 cu ft	2,500 sq. ft	98	245
iv. Convert the Produce Exchange at Grand Bahama, into a market	Make internal structures to accommodate 20 vendors  Retain existing cooling facilities			80
<b>TOTAL FOR MARKET OUTLETS</b>				<b>1,047</b>

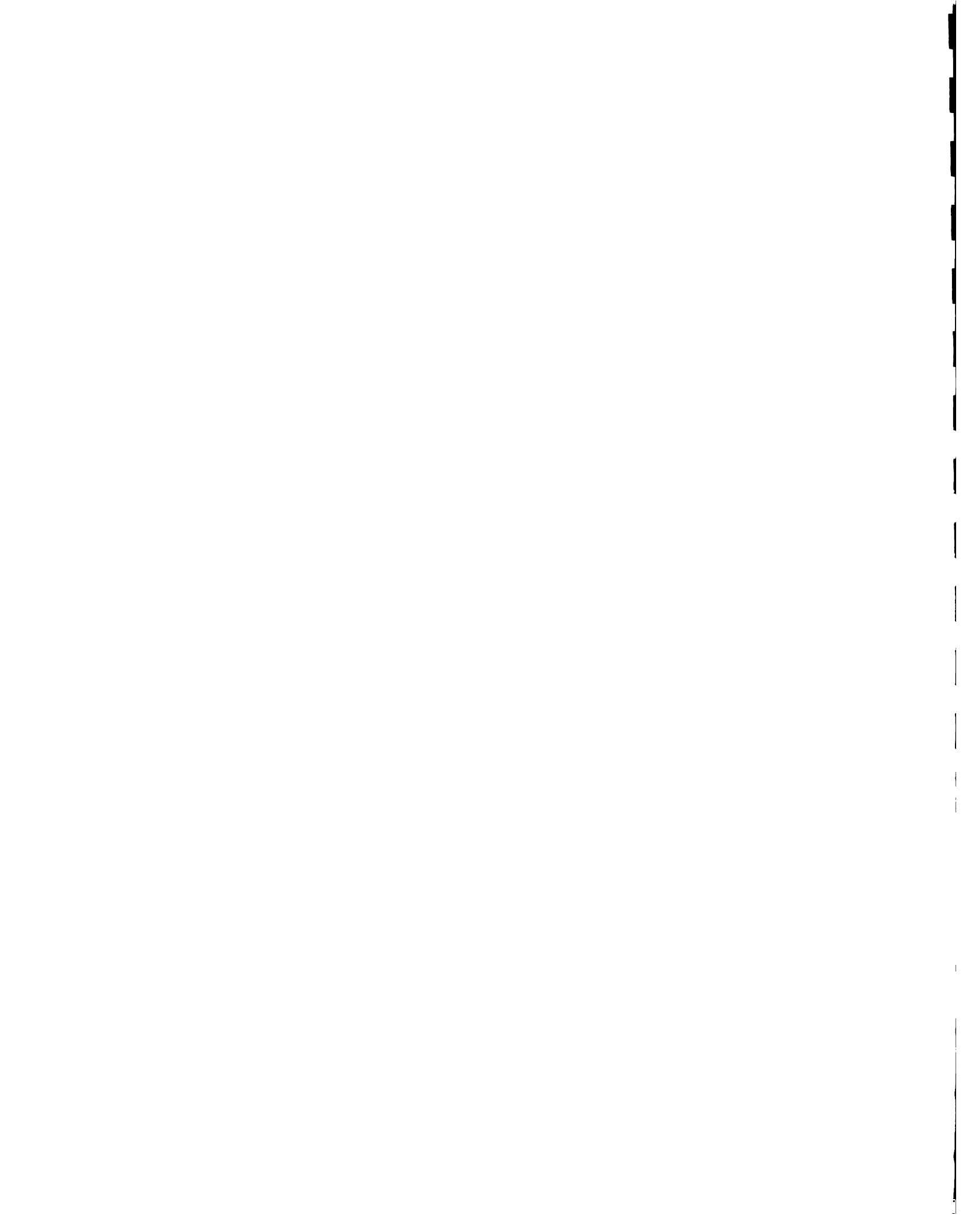


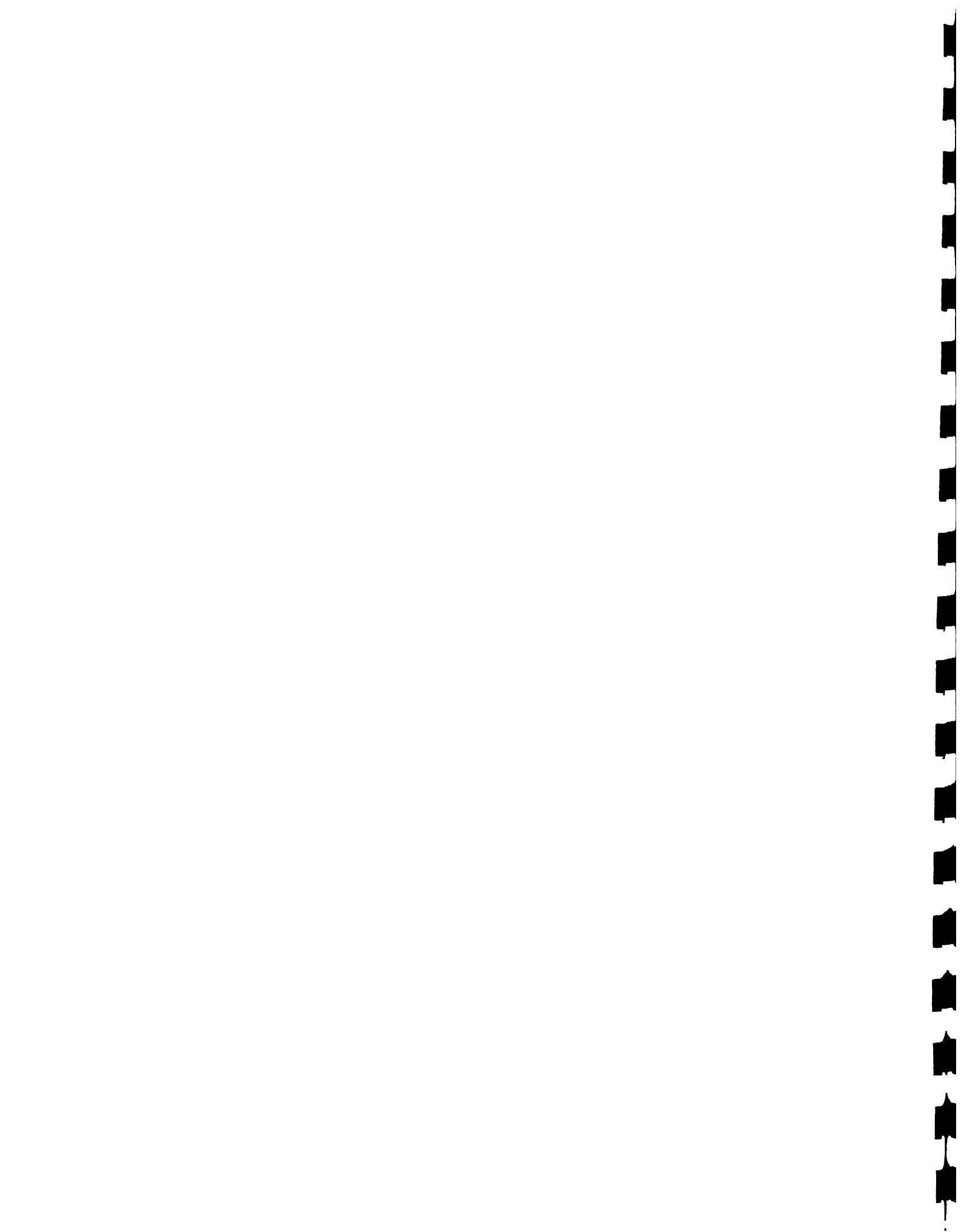
TABLE 26 (CONTINUED) BUDGET FOR MARKETING COMPONENT OF GOB-IDB AGRICULTURAL SERVICES PROJECT IN \$000

PROJECT/ITEM	SPECIFICATIONS	UNITS	UNITS PRICE \$000	TOTAL \$000
6. EXPORT PROMOTION CAPABILITY AT BAIC				
i. Assessment of a consultant for 6 months to develop export promotion program and train personnel	The expert should have at least 10 years of "hands on" experience in interactional business and an MBA or equivalent	10 month		60
ii. Execute 3 export promotion missions	Prepare missions and send 4 BAIC persons on it. The target locations should be Florida USA, the Eastern Seaboard USA and UK	24 missions		72
iii. Develop information base on investment market opportunities	Extend contract of international business expert to execute this task for three months	3 person month	10 person month	30
TOTAL				162



TABLE 26 (CONTINUED) BUDGET FOR MARKETING COMPONENT OF GOB-IDB AGRICULTURAL SERVICES PROJECT IN \$000

PROJECT/ITEM	SPECIFICATIONS	UNITS	UNIT PRICE \$000	TOTAL \$000
6. EXPORT PROMOTION CAPABILITY AT BAIC (CONID)				
iv. Procure and install a computer system	Procure 2 personal computers 640k, along with printers and accessories; extend contract of international business expert to execute this task for 3 months	each	7	14
TOTAL FOR EXPORT MARKET PROMOTION				176



**B. Projects and Financial Implications**

There will be 5 projects namely:-

M-01 Improvement of Field Services (packing houses)

M-02 Market Information Services

M-03 Improvement to Mail Boat Services

M-04 Produce Exchange Development

M-05 Establishment of Markets

The projects are summarized in the program profile which follows.  
Individual project profiles also follow.





PROGRAM PROFILE

1. TITLE: Summary of Program for Marketing Services.
2. BRIEF DESCRIPTIONS: The program has 6 projects: (a) Improvement of field services (packing houses); (b) Development of marketing information services; (c) Improvement to boat transportation services; (d) Establishment of a new produce exchange complex and stream lining of the organization for improved services, efficiency and accountability (e) Establishment of two markets in Nassau, one in Abaco and converting the exchange in Freeport into a market (f) improvement of the export promotions capability of BAIC
3. BRIEF JUSTIFICATION: This program will reduce past harvest loses, stabilizing prices, make the Produce Exchange more efficient and accountable, and increase foreign exchange savings.
4. MAIN BENEFICIARIES: Up to 900 farmers, 200 vendors, the GOB and consumers.
5. EXECUTING AGENCIES: They are listed in order of the 6 projects as follows:  
The Produce Exchange, DEPAG and BDB.

6. CAPITAL COSTS/SOURCES OF FINANCING \$000

	TOTAL	LOCAL	EXTERNAL
- Equipment	2,836	84	2,752
- Building	3,948	1,351	2,567
- Technical assistance	614	350	264
- Furnishing	0	338	0
- Container	84	84	0
- Transport equipment	539	0	539
TOTAL	8,029	1,907	6,122

<u>7. SCHEDULE OF EXPENDITURE</u>	<u>1990/91</u>	<u>1991/92</u>	<u>1992/93</u>
TOTAL 8,029	1,539	4,022	2,468



PROGRAM PROFILE (CONTINUED)

8. INCREMENTAL ANNUAL OPERATING COSTS \$000

	TOTAL
	-----
- Utilities	90
- Personnel	323
- Supplies	277
- Maintenance	464
- Depreciation	540
- Interest	594
	-----
TOTAL	2,288

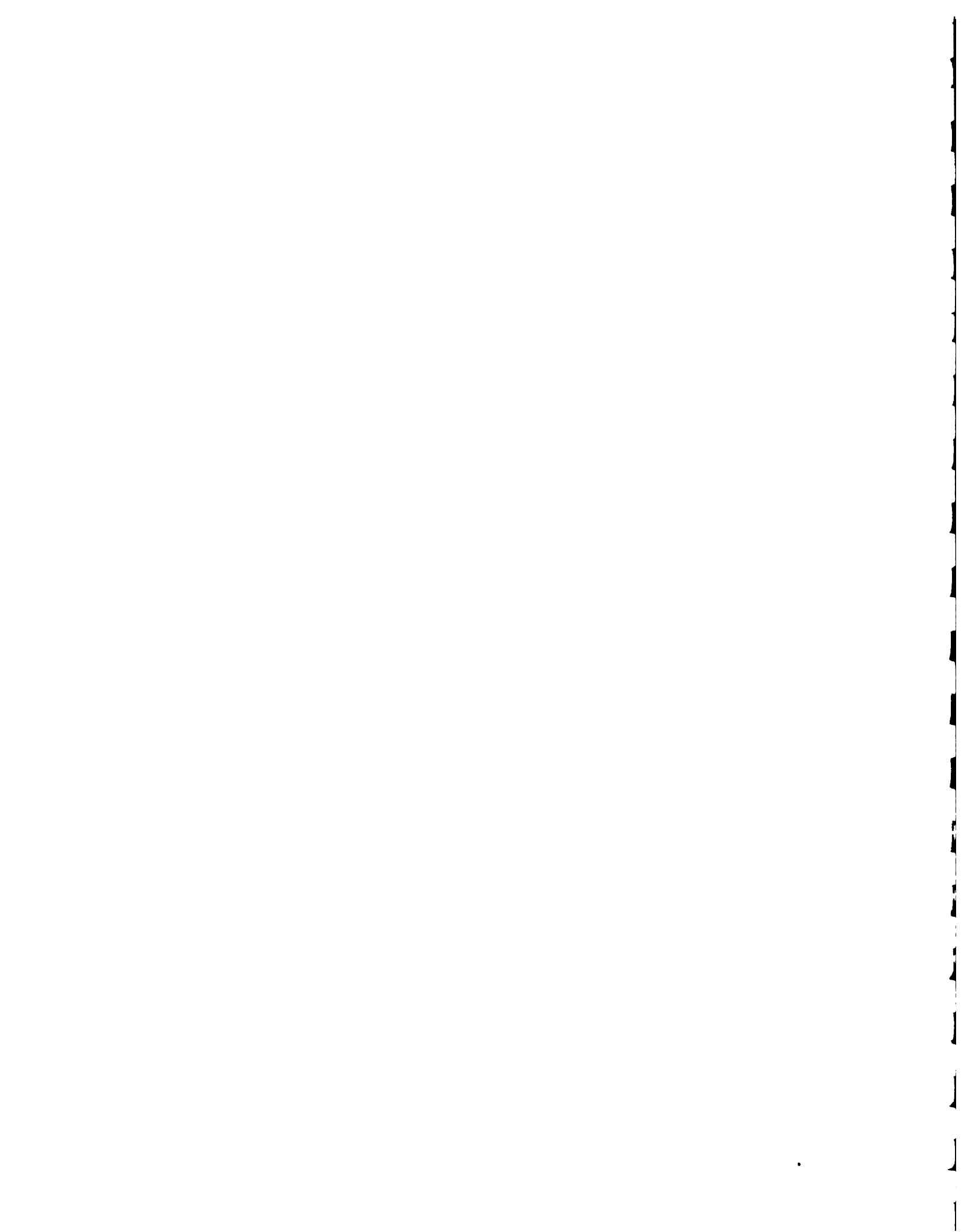


PROGRAM PROFILE (CONTINUED)

Summary of Program for Marketing Services

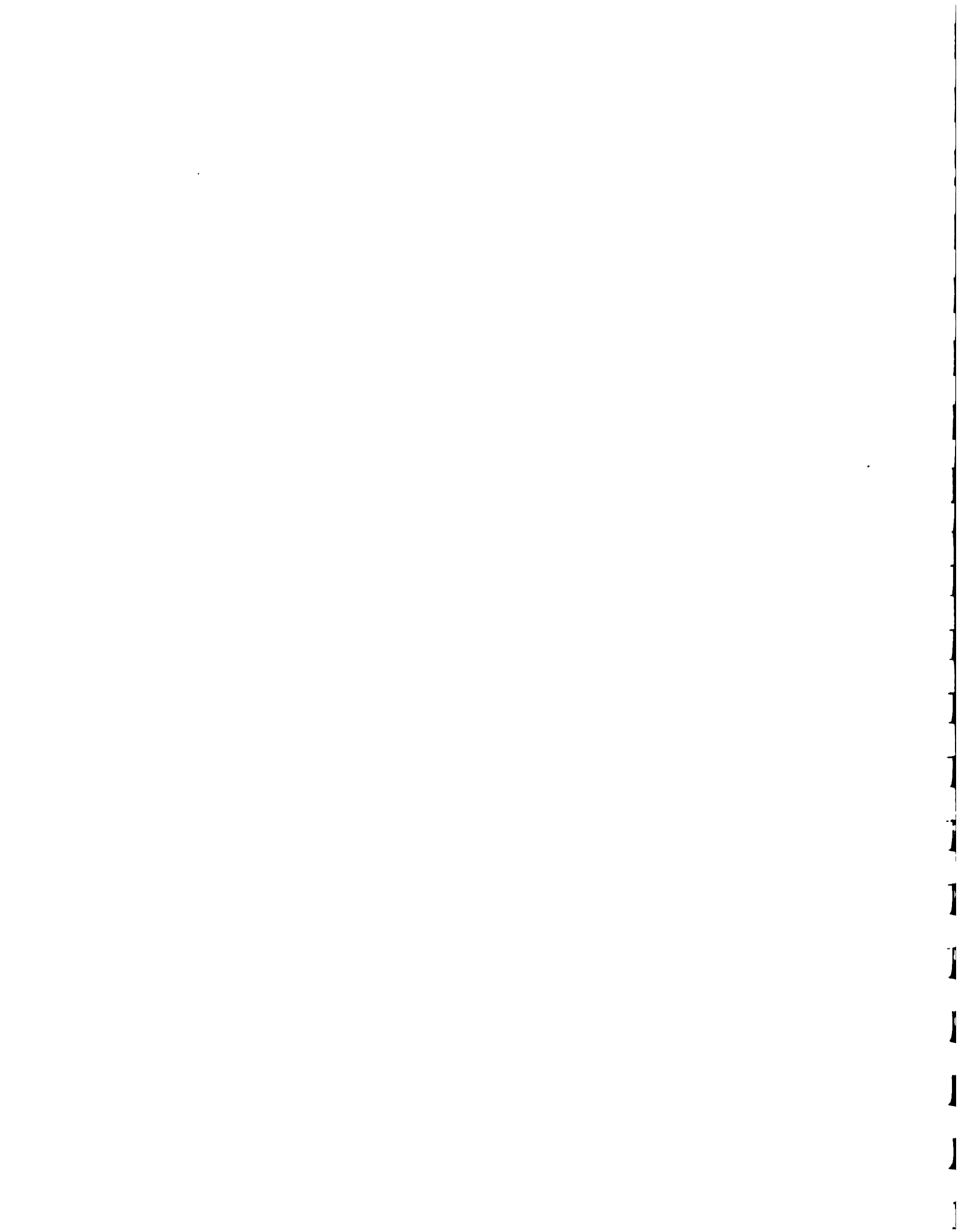
1. ANNUAL INCREMENTAL FINANCIAL ECONOMIC BENEFITS \$000

<u>BENEFITS</u>	<u>TOTAL</u>	<u>FARMERS</u>	<u>GOB</u>	<u>PROD EXCH</u>	<u>MACRO/EXCH COUNTRY</u>	<u>OTHERS</u>
- Reduction in rejection of farmers' produce	684	684	0	0	0	0
- Reduction of spoilage at Produce Exchange and packing houses	1,653	0	0	1,653	0	0
- Foreign exchange savings	4,544	0	0	0	4,544	0
- Reduction of dumping on farms	950	950	0	0	0	0
- Price stability	170	170	0	0	0	0
- Reduction of spoilage in transit	602	0	0	502	0	10
- Rental of Produce Exchange and packing house space	102	0	0	102	0	0
- Savings on salaries at Produce Exchange	180	0	0	180	0	0
- Increase income to New Providence farmers	53	53	0	0	0	0
- Sale of Packing house/ Produce Exchange services	340	0	0	340	0	0
<b>TOTAL</b>	<b>9,278</b>	<b>1,857</b>	<b>0</b>	<b>2,777</b>	<b>4,544</b>	<b>10</b>



## 9. SPECIAL CONSIDERATIONS

- (i) Ensure that mail boats serving the South install adequate cooling facility as a precaution for contracting them.
- (ii) Assurance that land distribution policies and land administration are improved to expand the production of fresh foods to match the proposed incremental through-put capacity at Produce Exchange.
- (iii) The Produce Exchange and its packing houses and distribution outlets should be allowed to operate autonomously and on a cost recovery basis.





The individual Project Profiles follow

M0-1 Improvement of Field Services (packing houses)

M0-2 Market Information Services

M0-3 Improvement of Boat Transportation services

M0-4 Produce Exchange Development

M0-5 Establishment of Markets

M0-6 promotion of Export Agriculture



PROFILE - M01

1. PROJECT TITLE: Improvement of Field Services  
(packing houses)

2. BRIEF DESCRIPTION: The project has 4 activities; (a) Improved information coordination, (b) Improved grading through training and installation of new equipment, (c) Building of additional packing area, (d) install grading and cool room equipment.

3. BRIEF JUSTIFICATION: This project will help to reduce the current 15% rate of rejection of farmers' produce, it will also reduce post harvest losses which is about 12% at the packing houses. It is assumed that the packing houses will buy about 5.7 million worth of produce or about 40% of farmers outputs.

4. MAIN BENEFICIARIES: About 800 farmers and the Produce Exchange.

5. EXECUTING AGENCY: The Produce Exchange. It is scheduled for implementation a period of over 3 years

<u>6. CAPITAL COST / SOURCES \$000</u>	<u>TOTAL</u>	<u>LOCAL</u>	<u>EXTERNAL</u>
- Equipment	1,049	0	1049
- Building	392	117	275
- Furnishing	8	8	0
	-----		
TOTAL \$000	1,449	125	1,324

<u>7 SCHEDULE OF EXPENDITURE</u>	<u>TOTAL</u>	<u>1990/91</u>	<u>1991/92</u>	<u>1992/93</u>
Equipment	1,049	-	500	549
Building	392	100	200	92
Furnishing	8	-	-	8
	-----			
TOTAL	1,349	100	700	649

<u>8. INCREMENTAL ANNUAL OPERATING COST, \$000</u>	<u>TOTAL</u>	<u>GOB</u>	<u>PROD EXCH</u>
- Utilities	30	0	30
- Supplies including fuel	60	0	60
- Maintenance	70	0	70
- Depreciation	101	0	101
- Interest	106	0	106
	-----		
TOTAL \$000	367	0	367



PROFILE - MO1 (CONTINUED)

<u>9. ANNUAL INCREMENTAL FINANCIAL AND ECONOMIC BENEFITS, \$000</u>	<u>TOTAL</u>	<u>FARMERS</u>	<u>PROD EXCH</u>	<u>MACRO/COUNTRY</u>
- Reduction of rejection of farmers' produce to 3%	684	684	0	0
- Grading and packing services	280	280	0	0
- Reduction of spoilages at Packing house to from 12% to 3%	513	0	513	0
- Rental of space	11	0	11	0
- Foreign exchange savings	2,902	0	0	2,902
TOTAL \$000	4,390	684	793	2,902

10. SPECIAL CONSIDERATIONS:

The packing houses should begin to operate on sound business principles. It should also perform on a cost recovery basis.



PROFILE MQ2

1. PROJECT TITLE: Market Information Services

2. BRIEF DESCRIPTION: The project has 4 activities (a) It gives the DEPAG MINAG and the Produce Exchange capacity to originate and analyse primary market data (b) It educates farmers on market requirements (c) It supports an outreach program to target players in the market place (d) It establishes a data bank at the Produce Exchange and the DEPAG.

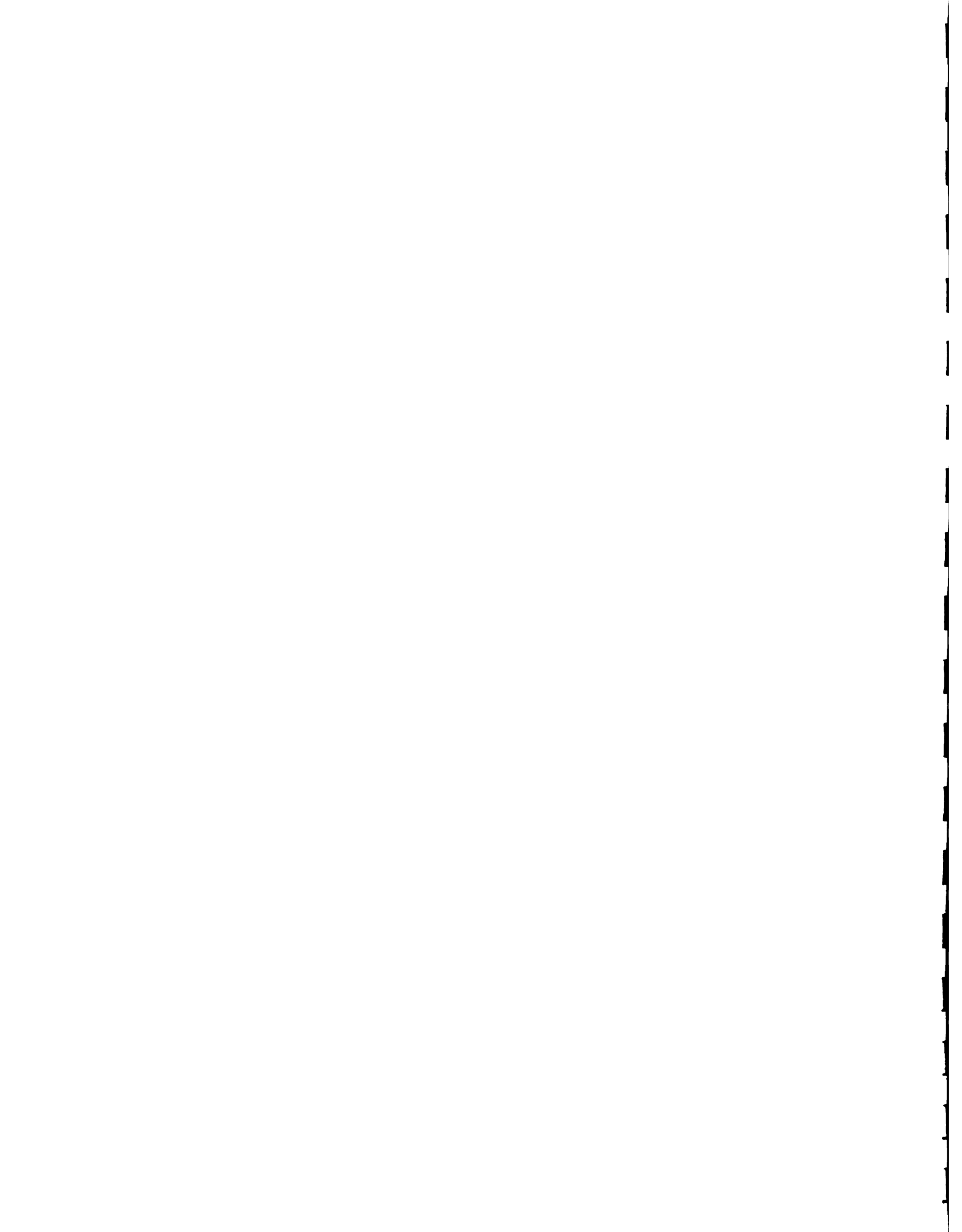
3. BRIEF JUSTIFICATION: It enables the DEPAG, to help to provide accurate market intelligence to farmers, marketing personnel and buyers so that timely decisions could be made on procurement and production to avoid excessive: production and imports, suppression of prices, which is now about 3% annually. It will also reduce farmers dumping from about 16%

4. MAIN BENEFICIARIES: (a) About 900 farmers, (b) about 200 vendors, (c) about 200 restaurants, (d) distributors and hoteliers.

5. EXECUTING AGENCIES: (a) DEPAG for the information services, (b) the Produce Exchange for the promotional services. It should be implemented over 18 months.

<u>6. CAPITAL COST/SOURCES</u>	<u>\$000</u>	<u>Total</u>	<u>LOCAL</u>	<u>EXTERNAL</u>
Equipment		52	0	52
Technical Assistance		428	314	114
Transport equipment		84	0	84
Total \$000		564	314	250

<u>7. SCHEDULE OF EXPENDITURE</u>	<u>TOTAL</u>	<u>1990/91</u>	<u>1991/92</u>
Equipment	52	52	-
Technical assistance	428	250	178
Transport equipment	84	42	42
TOTAL	564	344	220





PROFILE 2 CONTD

8. INCREMENTAL ANNUAL  
OPERATING COST \$000

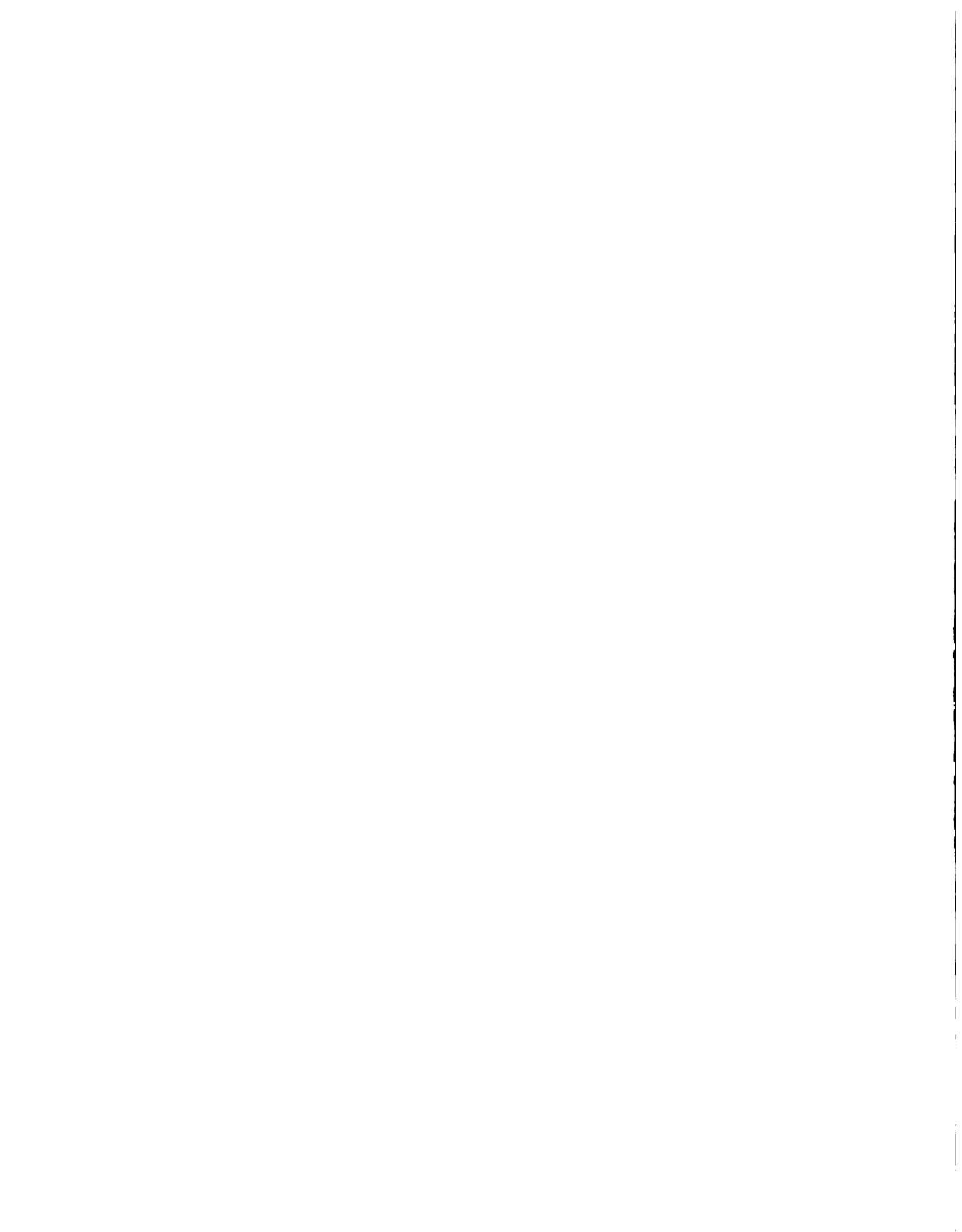
	<u>Total</u>	<u>GOB</u>
- Personal	45	45
- Supplies including fuel	12	12
- Maintenance	25	5
- Depreciation	34	34
- Interest	59	59
	-----	-----
Total \$000	175	175

PROFILE M02 (CONTINUED)

9. INCREMENTAL FINANCIAL  
& ECON. BENEFITS

	<u>Total</u>	<u>Farmers</u>	<u>Macro Country</u>	<u>Consumers</u>
- Reduction of dumping from 16% to 2%	950	950		
- Price stability @ 3% annual sale	170	170		
- Income benefits to households	n.a.	-		
- Foreign exchange savings	n.a.		n.a.	
	-----	-----	-----	-----
Total \$000	1,120	1,120	n.a.	

10. SPECIAL CONSIDERATIONS:                    -                    None



PROFILE - MO3

1. PROJECT TITLE: Improvements To Boat Transportation Services

2. BRIEF PROJECT DESCRIPTION: The project has (a) establishing of a line of credit at the Bahamas Development Bank to finance the installation of cool rooms for about 10 mail boats serving the southern island (b) purchase of barge to serve northern islands.

3. BRIEF JUSTIFICATION: About 16% of the fruits and vegetables shipped from the packing houses spoil on the mail boats due to the lack of adequate cooling facilities

4. MAIN BENEFICIARIES: The Produce Exchange, farmers, traders and brokers who account for about 30% of the fresh foods.

5. EXECUTING AGENCIES: (a) The Bahamas Development Bank for the line of credit for improving mail boats, (b) Produce Exchange for the procurement and operation of the barge. This should be executed over a 3-year period.

6. CAPITAL COST/SOURCES: \$000

	<u>Total</u>	<u>Local</u>	<u>External</u>
- For purchase and installation of coolers in mail boats	420	84	336
- Purchase and commissioning of barge	400	60	340
	-----	-----	-----
TOTAL	820	144	676

<u>7. SCHEDULE OF EXPENDITURE</u>	<u>TOTAL</u>	<u>1990/91</u>	<u>1991/92</u>	<u>1992/93</u>
Purchase and installation of coolers in mail boats	420	100	150	170
Purchase and commissioning of barge	400	-	400	-
	-----	-----	-----	-----
TOTAL	820	100	550	170

8. INCREMENTAL ANNUAL OPERATING COST \$000

	<u>Total</u>	<u>Boat Owners</u>	<u>PROD. EXCHANGE</u>
- Personnel	120	0	120
- Maintenance	41	27	16
- Depreciation	123	42	81
- Interest	57	29	28
	-----	-----	-----
- Total \$000	341	96	245

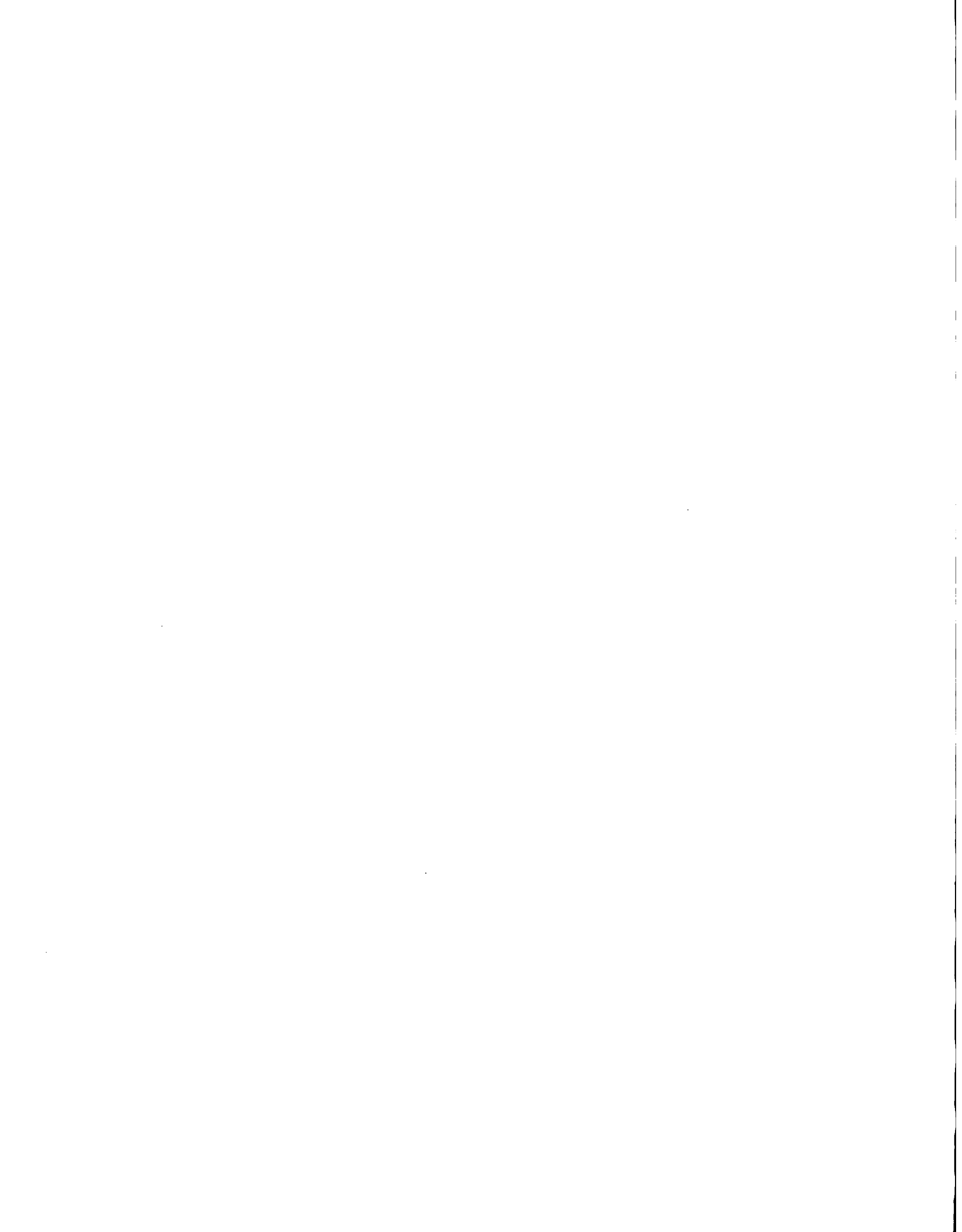


PROFILE MQ3 (CONTINUED)

9. ANNUAL INCREMENTAL FINANCIAL/ECON. BENEFITS \$000

	<u>Total</u>	<u>Boat Owners</u>	<u>Prod. Exch.</u>	<u>Macro Country</u>	<u>Other</u>
- Reduction in spoilage of produce in transit to the Exchange is from 20% to 5%	502	0	502		100
- Foreign exchange savings	502	0	0	502	0
- Total \$000	1,004	0	502	502	0

10. SPECIAL CONSIDERATIONS: Mail boats serving on southern island' routes should be required to have adequate cooling facilities as a prerequisite for mail contract.



PROFILE - MO4

- 1. PROJECT TITLE:** Produce Exchange Development
- 2. BRIEF DESCRIPTION:** The project entails the establishment of a new building fully equipped with grading, cool rooms, storage, handling and administrative facilities, and new systems for conducting business; as well as a new institutional framework to enhance accountability and monitoring of quality from farm to market
- 3. BRIEF JUSTIFICATION:** The present facility is obsolete, inefficient, inhygenic, has spoilage of about 25% of what it receives, and is over-staffed by about 35%. Spoilage could be reduced to 8% of what is purchased.
- 4. MAIN BENEFICIARIES:** Farmers, the market place, GOB, and the national economy.
- 5. EXECUTING AGENCY:** The Department of Agriculture and the Marketing Development Committee. The project should be executed over 3 years.

<u>6. CAPITAL COST/SOURCES</u>	Source of Finance	\$000	<u>Total</u>	<u>Local</u>	<u>External</u>
- Equipment			910	0	910
- Containers			84	84	-
- Building			2,900	870	2,030
- Technical assistance			24	24	0
- Transport equipment			55	0	55
- Total \$000			3,973	978	2,995

<u>7. SCHEDULE OF EXPENDITURE</u>	<u>TOTAL</u>	<u>1990/91</u>	<u>1991/92</u>	<u>1992/93</u>
Equipment	910	-	460	450
Containers	84	-	-	84
Building	2,900	600	1,400	900
Technical Assistance	24	-	-	24
Transport Equipment	55	-	55	-
<b>TOTAL</b>	<b>3,973</b>	<b>600</b>	<b>1,915</b>	<b>1,458</b>

<u>8. INCREMENTAL ANNUAL OPERATING COST \$</u>	<u>Total</u>	<u>GOB</u>	<u>Prod. Exch.</u>
- Utilities	60	0	60
- Supplies	80	0	80
- Maintenance	264	0	264
- Depreciation	229	0	229
- Interest	281	281	0
- Total	914	281	633





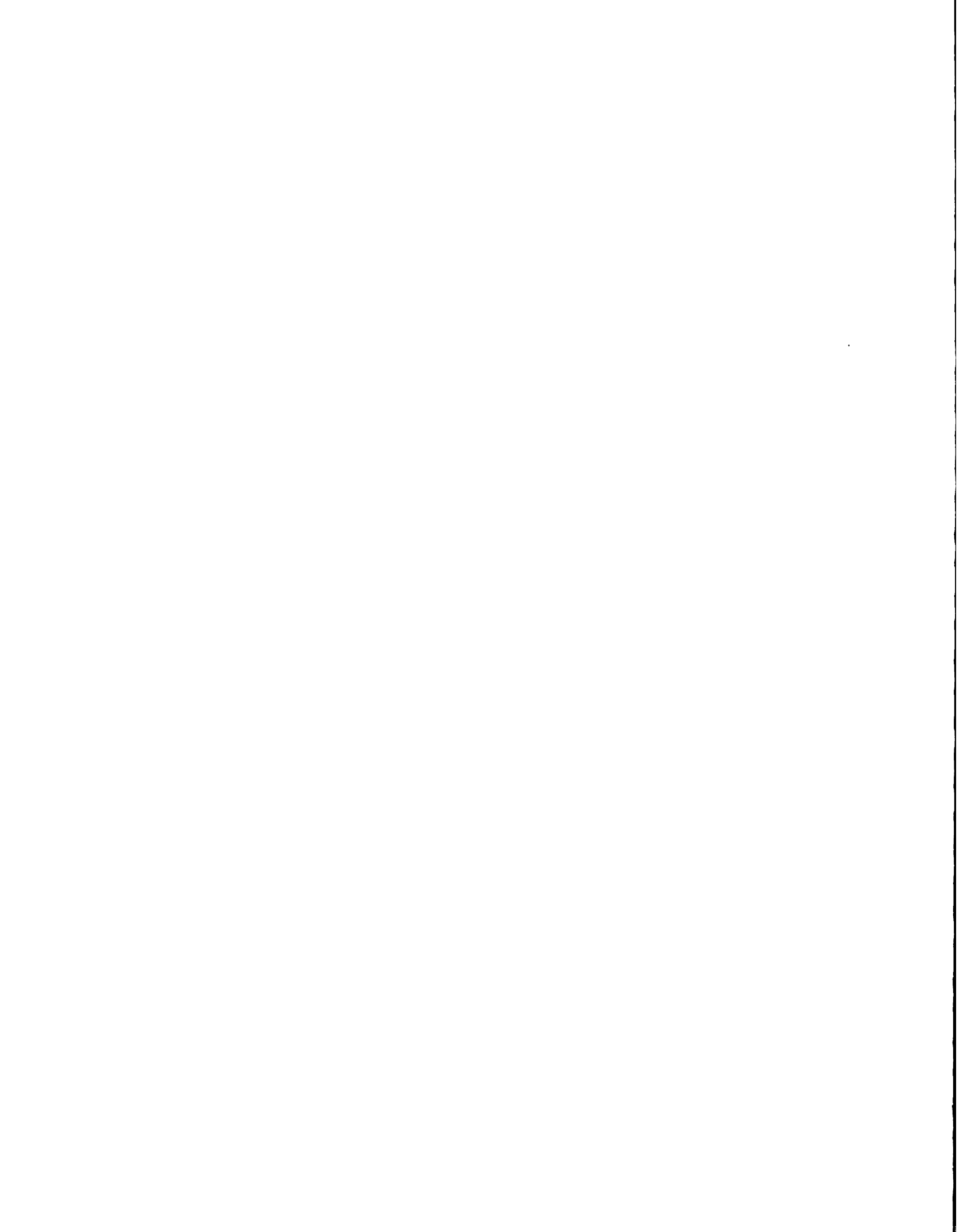
PROFILE M04 (CONTINUED)

9. ANNUAL INCREMENTAL FINANCIAL/  
ECON. BENEFITS

	<u>\$000</u> <u>Total</u>	<u>GOB</u>	<u>Prod.</u> <u>Exch.</u>	<u>Macro/</u> <u>Country</u>
- Reduction of spoilage from 25% to 5%	1,140	0	1,140	1,140
- Foreign exchange savings	1,140	0	0	0
- Savings from overall reduction of staff by 18, @ \$10,000 each	180	0	180	0
- Rental of about 20,000 sq ft of space at \$4.55/sq ft	91	0	91	0
- Packing/related services for 3 person year @ \$20,000/year	60	0	60	0
	-----			
Total	2,431	0	1,471	1,140

10. SPECIAL CONSIDERATION:

- (1) Land allocation policies administration must be revised and strengthened to increase the supply of land to eligible farmers so that they can expand production
- (2) The Produce Exchange must operate as an autonomous body.



PROFILE - M05

- 1. PROJECT FILE:** Establishments of Markets
- 2. BRIEF DESCRIPTION:** Establishment of two 3,800 sq. ft. markets in Nassau, (b) establishment of one 2,500 sq. ft. market in Abaco and (c) convert Freeport Produce Exchange into a market.
- 3. BRIEF JUSTIFICATION:** Establishing market outlets in strategic communities will be a good strategy to compete more effectively imported goods. It will also encourage farmers from New Providence, Abaco and Grand Bahama to take their produce directly to the market. In the case of New Providence, it will also assist in reducing congestion at the Produce Exchange. It will also benefit about 150 vendors who are now selling on sidewalks, under the bridge, or in ad hoc facilities in shopping plazas.
- 4. MAIN BENEFICIARIES:** Vendors, farmers, households
- 5. EXECUTING AGENCY:** The Produce Exchange - This is to be executed over 3 years

<u>6. CAPITAL COST:</u>	Source of Financing	\$000	<u>Total</u>	<u>Local</u>	<u>External</u>
- Building			656	394	262
- Equipment			391	0	391
<b>Total</b>			<b>1,047</b>	<b>394</b>	<b>653</b>

<u>7. SCHEDULE OF EXPENDITURE</u>	<u>TOTAL</u>	<u>1990/91</u>	<u>1991/92</u>	<u>1992/93</u>
Building	656	200	356	100
Equipment	391	100	200	91
<b>TOTAL</b>	<b>1,047</b>	<b>300</b>	<b>556</b>	<b>191</b>

<u>8. INCREMENTAL ANNUAL OPERATING COST \$000</u>	<u>Total</u>	<u>GOB</u>	<u>Prod. Exch.</u>
- Personnel	25	0	25
- Maintenance	52	0	52
- Depreciation	52	0	52
- Interest	73	73	129
	<b>202</b>	<b>73</b>	<b>129</b>



PROFILE M05 (CONTINUED)

9. ANNUAL INCREMENTAL FINANCING/  
ECONOMIC BENEFITS:

	<u>Total</u>	<u>GOB</u>	<u>Prod. Exch.</u>	<u>Other</u>
- Rental income	169		169	
- Increase income to New Providence farmers who use it to retail other than using supermarkets, etc.	53	0	0	53
- (other benefits can be realized until agricultural out increases.				
TOTAL	222	0	169	53

10. SPECIAL CONSIDERATION: Assurance that through-put at Produce Exchange will at least double



PROFILE M06

- 1 PROJECT TITLE Promotion of Export Agriculture
- 2 BRIEF DESCRIPTION The project has four components (a) assignment of a short term expert to BAIC to develop export program and train personnel, (b) execution of export promotion missions, (c) develop information base (d) installation of information system.
- 3 - BRIEF JUSTIFICATION The small Bahamian market for food will require less than 5% of its land resources for achieving self-sufficiency in food consequently it has to promote export agriculture to expand and diversify the sector in order to increase farmers' income secondly the encouragement of farmers income to export, especially those in the North, will increase the domestic market opportunity for small farmer and economically disadvantaged ones in the south. Since BAIC has very limited institutional capability to execute the project, technical assistance will have to be provided.
- 4 . MAIN BENEFICIARIES Farmers who are engaged in export
- 5 . EXECUTING AGENCY BAIC: This project should be executed over a 24 months period.

Capital cost/sources \$000	<u>Total</u>	<u>Local</u>	<u>External</u>
- Technical expert	90	0	90
- Export promotion missions	72	12	60
- Equipment	14	0	14
TOTAL	176	12	164

6 . <u>SCHEDULE OF EXPENDITURE</u>	<u>Total</u>	<u>1990/91</u>	<u>1991/92</u>
- Technical Assistance	90	45	45
- Export Promotion Missions	72	36	36
- Equipment	14	14	
TOTAL	176	95	81





<u>7. INCREMENTAL ANNUAL OPERATING COST</u>	<u>Total</u>	<u>GOB</u>	<u>BAIC</u>
- Personnel	70	0	70
- Supplies	63	0	63
- Maintenance	12	0	12
- Depreciation	30	0	30
- Interest	18		18
	-----		
TOTAL	193		193

<u>8. INCREMENTAL FINANCIAL AND ECONOMIC BENEFITS \$000</u>	<u>Total</u>	<u>Private Sector</u>	<u>Macro</u>
- Foreign investment inflows for about 5,000 acres of development	10,000		10,000
- Annual export earnings from about 5,000 acres	7,000		7,000

9. SPECIAL CONSIDERATION                      None

