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# Central America Regional Transportation Study

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## Panama

June 1987



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Brinckerhoff** • 100  
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# PANAMA

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# CENTRAL AMERICA REGIONAL TRANSPORTATION STUDY

## PANAMA

### EXECUTIVE SUMMARY

This report evaluates transportation in Panama and recommends ways to reduce transport-related constraints to the increased export of non-traditional products (products other than the traditional bananas, coffee, sugar, and meat).

The full study consists of six national reports and one regional report. It was sponsored by the United States Agency for International Development (USAID) through the Regional Office for Central America and Panama (ROCAP) to help USAID missions in the region understand the role of transportation in the export of non-traditional products. Increasing such exports supports the Caribbean Basin Initiative (CBI) for a healthy regional economy based on greater and more varied exports to the United States and other nations.

Interviews and fact-gathering in Panama and in the United States showed that many factors, both physical and institutional, limit the export of non-traditional products through the relatively high cost of transportation.

**Physical Limitations.** The volume of non-traditional exports is low: less than 100,000 tons per year, and with a value of about \$200 million. The network of main roads--though adequate for connecting population centers--lacks well-maintained rural feeder roads and regional collection centers. This isolates producers and increases truckers' costs. Trucking costs also go up when expensive refrigerated containers are left parked as substitutes for refrigerated warehouses. The poor levels of efficiency and inadequate standards of equipment maintenance at the nation's ports also serve to contribute to the cost of the maritime leg.

**Institutional Limitations.** Factors that serve to limit the efficiency with which a transportation system is used, as distinct from limitations in physical facilities, are termed "institutional"; streamlining them can increase exports at no capital cost. Because more refrigerated containers leave Panama with maritime exports than return with imports, shipping lines import empty containers at extra cost. Trucks run empty to make pickups. Coordination can cut the costs associated with such inefficiencies. Panama has a high level of government involvement in the production and export sectors, but the value of non-traditional exports is small. A number of programs are required to reduce involvement where this only serves to increase cost, and to possibly increase involvement in areas such as training, marketing, and promotion. Because of the low total value of exports, benefits from improvement programs are also low. The emphasis thus has to be on the development of new exports, particularly outside the field of basic agricultural commodities, and particularly those that can take advantage of the favorable air freight situation.



3. Review of Airport Facilities

Approximate cost: \$50,000 (study only)

Approximate benefit: \$11 million increased sales  
(tied to promotion)

Time frame: study 1988-1989

construction 1989-1993

Recommendations--Institutional

1. Contract Law Amendments

Approximate cost: not known

Approximate benefit: \$6.5 million increased sale  
minimum per year

Time frame: study 1988-1990

immediate programs 1990-1995

long-term programs 1990-on

2. Overseas Representation

Approximate cost: \$300,000 per year

Approximate benefit: \$1.0 million increased sales

Time frame: open office 1988/1989

3. Group Problem-Solving Assistance

Approximate cost: \$300,000 per year

Approximate benefit: up to \$2.0 million increased  
sales

Time frame: start program 1988

8



the transportation infrastructure--investments that could be justified at the national level of costs and benefits--the low value associated with non-traditional exports resulted in little justification for major capital projects in terms of benefits to these exports. Furthermore, the study team concluded that priority should be given to the major institutional recommendations, in the expectation that these would create the best environment for more effective use of the existing infrastructure.

# PANAMA

## CHAPTER 1

### INTRODUCTION TO THE STUDY

#### SYNOPSIS

Parsons Brinckerhoff International, Inc., has been commissioned by USAID, as part of Contract No. OTR-0000-I-00-6071-00, to supply technical services in Central America in the form of a study for the Central America Regional Transport Project. The objective of the study was to produce a series of reports that would enable the Regional Office for Central America and Panama (ROCAP) and the USAID missions to understand more fully the role of transportation in the development and promotion of extra-regional and intra-regional trade in non-traditional exports, and to assist in the formulation of proposals for the removal of the identified transportation-related problems. Recent experiences in the region have concluded that initiatives by ROCAP and the Central American bilateral USAIDs in support of non-traditional exports have invariably encountered transportation-related problems which have dampened the anticipated impact of the programs.

To complete the contract requirements, a study team was proposed which, for the six countries given (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Panama), was to identify land, sea and air transportation constraints inhibiting private sector

exports of Caribbean Basin Initiative and Central American Initiative non-traditional products in both intra- and inter-regional markets, and to recommend means for removing these constraints. For the recommended means, order-of-magnitude costs and time frames were to be developed.

A non-traditional export was to be considered any product other than the traditional export products of coffee, sugar, beef, cotton, and bananas.

A constraint was to be considered any condition which served to lessen service quality, increase transport costs, or reduce producer incentives to generate non-traditional products.

The results of the study were to be contained in seven reports: one for each of the countries and one covering the region as a whole.

The study was conducted in three phases:

Phase I - US review of documentation, consultations and survey methodology development

Phase II - Field interviews, documentation research and survey research

Phase III - Analysis of needs and prioritization of recommendations.

A study team of one transportation economist and two transportation engineers provided services both in the USA and in Central America, while a third transport engineer provided additional services solely in the USA. A total of 21 weeks was allowed from the start of the contract to the submission of the draft final report to ROCAP. Work started on the project in the USA on Monday September 29, 1986.

This report, then, presents the results of the study for one of the subject countries: Panama. It contains a detailed review of the economic, institutional, physical and operational aspect of the country and its transportation system and the effects that all these have on the exports of non-traditional products. The report identifies problems that are identified as having an inhibiting effect on the export of the non-traditional products, and makes recommendations for their removal or amelioration. The report makes a particular effort to present the views of the exporters themselves regarding transportation, and discusses the accuracies and possible misconceptions contained in these views.

## **BACKGROUND**

Legislators, policy formulators and administrators and responsible observers--in both the public and private sectors--in both the United States and in Central America have recognized that the recent economic decline in the region has deep roots and the resulting political, economic and financial disequilibrium is not likely to be self-correcting. A major surge in the primary

commodity price levels so critical to current economic health of the region is not a near term probability. Indeed, the December 1986 decision by the United States to reduce its sugar imports from Latin America and the Caribbean by 41 percent in 1987 will put downward pressure on world sugar prices. A comparable decision on meat imports from the region will also have a destabilizing impact on world prices.

Regional protectionism appears to be on the rise with the obvious negative impact on trade between the individual Central American nations. Political tensions--and the widespread, often exaggerated, perception of these tensions--serve to limit investor confidence in the countries of the region and to restrain critical capital inflows.

This critical--and potentially worsening--situation has given rise to the political and legislative background for planned AID regional and bilateral programs in Central America: the 1984 enactment of the Caribbean Basin Initiative (CBI) and the follow up Central American Initiative (CAI).

The CBI and CAI programs are designed to stimulate investment and trade in the several Central American nations. The arch of the CBI and CAI programs is easier access to the US market. In order to add to the concrete value of this improved access, an increased program of foreign economic assistance is being undertaken by ROCAP and the Central American bilateral USAIDs.

An important focus of the proposed interventions is on assistance to exporters of products that are "non-traditional" to the countries of the region. The "traditional" exports are the major commodities, such as bananas, coffee, cotton, sugar and meat, while the "non-traditional" are all the other items of export that can compete in world markets.

Previous interventions by ROCAP and bilateral USAIDs have encountered serious obstacles that have been identified as being transportation-related. In an effort to investigate the validity and dimensions of the impediment, this study was commissioned.

The study sought to achieve its objectives by

- o A review of existing documentation related to sea, air and land transportation and infrastructure distribution, including economic trends, cargo volumes, and previous Central American transportation studies.
- o Consultation with institutions, organizations, companies and individuals in the USA who are or have been involved with the export of non-traditional products in the region.
- o Interviews in each of the subject countries with individuals and groups such as

Growers and exporters of non-traditional perishable agricultural products;

Exporters of other non-traditional export products;

Importers of inputs to the non-traditional sector;

Chambers of Commerce, industry and manufacturing;

USAID private sector officers and rural development officers;

Government ministries having influence over the transport of non-traditional commodities;

Export promotion councils;

Shippers' councils;

Airlines, ocean shipping companies, truckers, and ports and airports;

Shipping agents, freight forwarders, custom brokers, customs officials.

- o Identification of institutional constraints, and structural constraints affecting the operating efficiency and cost of roads and road transport, railways, aviation and ports and maritime transport.
- o Analysis and formulation of prioritized interventions which should be undertaken to improve the quality of transport service and reduce its cost, as related to the movement of non-traditional products to market.

## OUTLINE METHODOLOGY

The approach adopted started with an analysis to derive a definitive list of non-traditional exports for each country. For this purpose, published trade statistics, such as those contained in the UN Yearbook of International Trade, were analyzed and abstracted.

Dividing work between the United States and Central America, the team recognized from the start that the transportation-related constraints on Central American industries may not be located in those countries themselves, but in the United States. The transportation chain from producer to market was seen as a long one, and solving a problem observed at one point in the chain may in fact depend on solving other problems far down the chain, perhaps in another country. The choice of the U.S. importing port, for example, could affect transportation cost and efficiency as much as the choice of the exporting port in the country of origin. Thus time was spent in the early stages of the study interviewing US-based exporters, shipping company representatives, trade groups, international agencies, local embassy officials, and representatives of the major ports serving Central America.

The approach that was actually used in the field by the study team in this case was a studied compromise. While interviews with users, shippers, carriers, and agencies were being conducted in the USA, the export figures of the countries were studied to arrive at a definitive list of traditional and non-traditional exports. The information collected in the USA was used to develop a first cut at a list of names of individuals and organizations in

each of the target countries who would have to be interviewed to obtain greater details on the nature of the products and the nature of the constraints. Interviews in Central America sought to obtain an idea of the potential of the export product to growth, a measure of the relationship between the price of the product on the open market and the cost of remedial transportation-related work, and an idea of what products could be aggregated to benefit from the same improvements. Before formulating any recommendations for improvements or amendments, officials of national governments and international agencies were questioned, where appropriate, to ensure that no plans were being formulated by others that would pre-empt or otherwise override any proposals contained in the reports of this study. Hence, the final reports contain prioritized lists of products whose export volume could be significantly increased by suggested improvements or modifications to the transportation infrastructure, both physical and institutional. Modifications or improvements that would be better introduced on a regional basis, rather than country-by-country, are included in the regional report.

In addition to interviews, the study team used available documents, such as relevant studies, Central Bank review, ministry papers, USAID memoranda, and newspaper and magazine articles. On-the-spot investigations were made as needed. Thus major ports and airports were inspected, particularly since their efficiency would affect several industries at once. In many cases producers of similar export items had similar constraints, and the flexible interviewing schedule allowed the team to pursue such common concerns through directed questioning and on-the-spot inspections. Thus if interviewees perceived roads as a problem, the team sought to drive the roads in question.

The results of the studies were written up in the USA under the following headings:

- o the export of non-traditional products
- o the national transportation system
- o geography, population and demographics
- o national economy and trade
- o discussion, conclusions and recommendations.

The analysis of each nation's non-traditional exports was done within the classification framework of the internationally-accepted Standard International Trade Classification (SITC), Revision 3. The adoption of this system was considered fundamental to the study, in giving it a consistent and systematic framework within which to analyze the information collected regarding the wide range of non-traditional products.

The studies were produced in the form of seven separate reports: one each for Belize, Guatemala, Honduras, El Salvador, Costa Rica, and Panama, and one report covering the region as a whole.

### Metrication

The metric system of units has been adopted for this series of reports. Only where industry standards are in the pound-foot system (eg 20 ft containers) is this alternative system used. Tons and metric tons, therefore, refer to 1,000 kg throughout.

# PANAMA

## CHAPTER 2

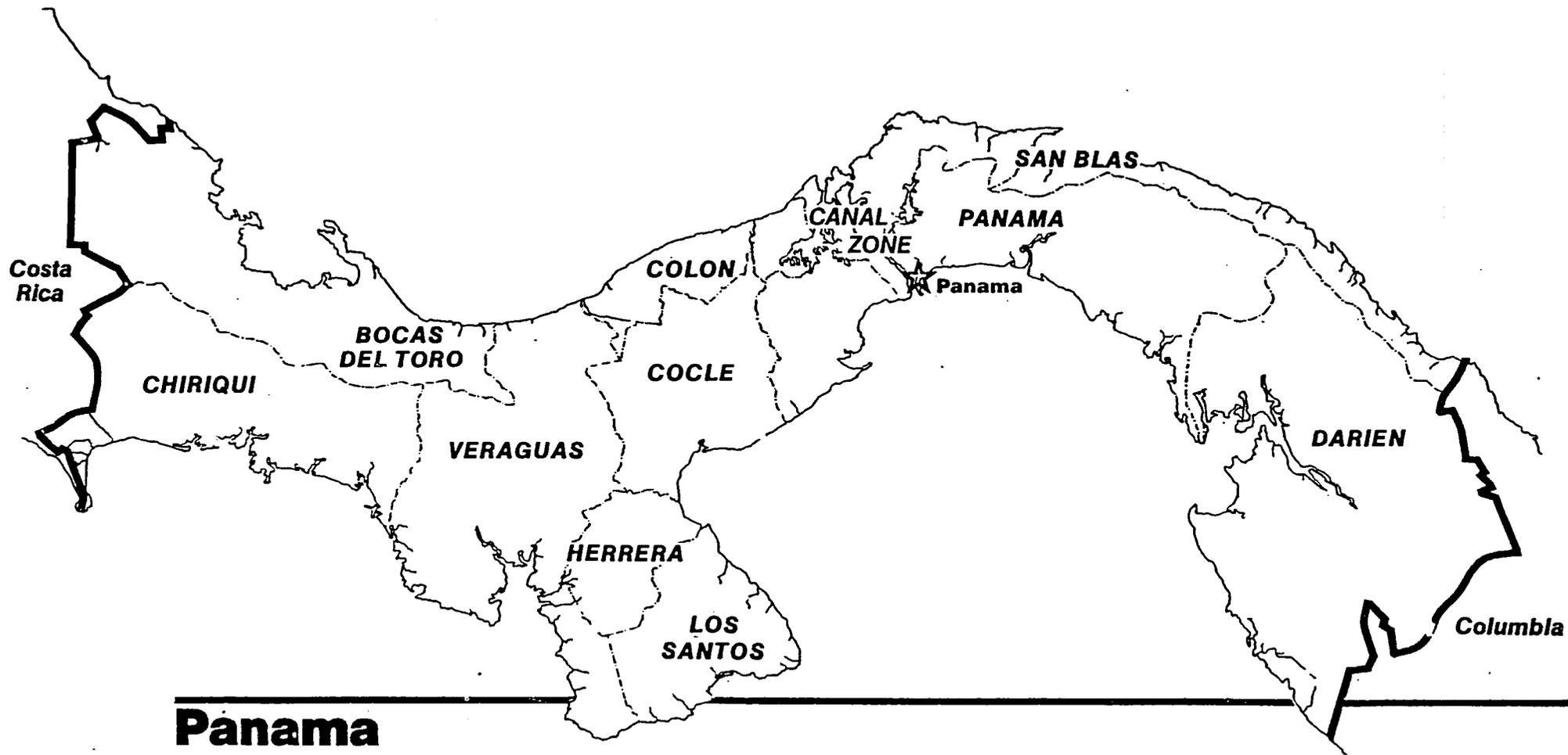
### GEOGRAPHY, POPULATION AND DEMOGRAPHICS

#### GEOGRAPHY AND CLIMATE

Panama lies between Costa Rica and Colombia along the isthmus linking Central to South America. It is a long, narrow country, whose steep mountain chains--the Cordillera de Talamanca in the west and the San Blas in the East--rise to more than 3,000 meters and sharply divide the country into still narrower Atlantic and Pacific halves, with remarkably long littorals--1,160 km along the Caribbean and 1,697 km along the Pacific. In a crucial gap between the two main mountain ranges, the continental divide descends from some 900 meters to only 87 meters or less, allowing construction of the Panama Canal. Today, the comparative lowlands along the canal hold much of Panama's urban development, with the two largest cities standing at either end of the canal. Panama has been progressively assuming jurisdiction over the former Canal Zone (a strip 8 km to either side of the Canal itself), and full Panamanian operation of the Canal is scheduled to begin in the year 2000.

Outside the region of the canal, the country remains sharply divided by the mountains and for the most part forested and with a typically tropical climate.

Along the hot Atlantic coast lie dense tropical forests, rising into the mountain slopes and sustained by a comparatively high rainfall averaging some 3,800 mm a year in some places (3,175 mm at Colón, and 2,970 mm for the Caribbean coast as a whole). The cooler mountain crests form a rainfall divide, so that Panama's Pacific slope, though still averaging 1,600 mm of rain



**Panama**  
**Provinces**

1/1

annually (1,770 mm at Panama City), receives only about half the rainfall of the Atlantic coast. (On both coasts, the rainy season extends from April or May to about mid-December.)

On the less rainy Pacific side, savanna and semi-deciduous trees intrude upon the dense tropical forest. Most of the farmed 16 percent of the country lies in six provinces of the Pacific coast. Farming occurs also in intermountain valleys and sporadically in the Atlantic lowlands; much of the farmed 16 percent is pasture rather than croplands.

## **POPULATION AND DEMOGRAPHICS**

With over half the country's total land area uninhabited jungle and mountain, it is not surprising that Panama has a small population for its size. Though Panama is in an area about in the middle of the Central American spectrum (roughly 80,000 km<sup>2</sup>), only Belize has a smaller population. Per km<sup>2</sup>, the population density was estimated at only 27.7 persons in July of 1984. Panama's total population of slightly over 2 million is, however, by no means spread over the entire available land area. Forty percent of the total population concentrates in or around just two cities at either end of the Canal, Panama City and Colón. For the nation as a whole, 57 percent of the population lives in urban areas. Most of the rural population lives in the six Pacific provinces west of the Canal where most of the farmed land is concentrated. On the Atlantic coast, only Bocas del Toro, near the Costa Rican border, can be counted as an appreciable center of rural population.

Most of the population is mestizo or mulatto; only three Indian tribes survive today out of an estimated 60 inhabiting the isthmus at the start of the Spanish conquest. Few of these Indians speak Spanish; other non-Spanish-speaking populations include most of the country's blacks, who are English-speaking

descendants of British West Indians who originally came to Panama as railway and canal workers. A smaller group among the country's blacks are Spanish-speaking descendants of the escaped slaves who set up free communities in the 16th century; their descendants now live primarily in Darien and the Pearl Islands. Near the Costa Rican border, in Bocas de Toro, half the population speaks Spanish, half English.

Both Spanish and English are taught in the schools, with English as the compulsory second language for Spanish-speakers. Education, though compulsory to age 14, is more available to urban than to rural populations. In the towns, only 6 percent are illiterate, compared to 43 percent in the countryside. Literacy has been rising and stood, overall, at 88 percent in 1981.

Health statistics have shown improvements over recent years; infant mortality, for instance, has been lowered from 25 per 1,000 live births in 1979 to 20 per 1,000 in 1982. Life expectancy reached 71 years in the early 1980s.

## PANAMA

### CHAPTER 3

#### THE EXPORT OF NON-TRADITIONAL PRODUCTS

#### THE EXPORTS OF PANAMA

##### Export Classification

In 1984 Panama exported goods to the value of \$256.3 million. These products had a combined volume of about 861,000 tons. Table 3.1 shows the distribution of these exports according to the SITC (Standard International Trade Classification) system. As can be seen, the export of basic food products accounted for 81% of the value and 93% of the volume. It was found during the study that all the countries of the region had the greater part of the export volume producing a lower percentage of the value, reflecting the dependence on low-price high-bulk basic agricultural products.

Taking basic manufactures (#6) together with chemical products (#5) and other manufactures (#8), the result is a manufacturing sector accounting for \$35 million per year, and a volume of 13,656 tons. This sector represents about 14% of the total value and 2% of the volume--the relative percentages demonstrating the higher unit values of the exports. It should be noted, however, that the figures are somewhat distorted because of the proportion of low value added exports: such items as textiles and garments, where Panama imports the materials already prepared

and only does assembly work in the country. These items are normally claimed at full value on export documents, and not just the value to the country. The net result is an overstatement of the size or importance of the manufacturing sector.

**Table 3.1**  
**Panama**  
**Exports 1984**

<u>Class.</u>	<u>Description</u>	<u>\$ million</u> <u>FOB</u>	<u>Tons</u>
0	Food & Live Animals	206.5	800,898
1	Drinks & Tobacco	4.5	2,071
2	Raw Materials etc.	3.1	13,304
3	Fuel & Lubricants	5.6	29,142
4	Vegetable & Animal Oils	0.4	1,560
5	Chemical Products	8.5	3,641
6	Manufactured Items	13.9	9,121
7	Machinery & Transport Equipment	0.6	341
8	Other Manufactures	12.6	894
9	Live Animals & Other		
	Transactions	0.6	-
	TOTAL	<u>256.3</u>	<u>860,972</u>

Note: Includes exports to Colón Free Zone

Source: Situacion Economica, Comercio Exterior: Año 1984,  
Direccion de Estadistica y Censo

### Export Destinations

The major single destination for the exports of Panama in 1984 was the USA, accounting for \$152 million (59%) and 371,000 tons (43%). The massive export of bananas to Europe put the countries of that continent as next in importance, but the greatest, West Germany, only accounted for 7% of value and 18% of tonnage volume. A relatively low volume of high-price items go to Costa Rica, demonstrating the demand in that country for consumer goods.

25'

Tables 3.2 and 3.3 show the main destinations of Panama's exports in order of total value and total tonnage. Aggregating the countries of Europe gives \$46.9 million (18%) and 375,468 tons (44%), and aggregating the countries of Central American gives \$29 million (11%) and 22,342 tons (3%).

**Table 3.2**  
**Panama**  
**Exports 1984**  
**Main Destinations by Value**

<u>Country</u>	<u>\$ million</u> <u>FOB</u>	<u>Tons</u>
USA	151.7	371,334
Costa Rica	20.4	16,963
Germany (FDR)	16.9	154,174
Belgium	13.4	116,972
Italy	10.4	53,833
Puerto Rico	9.4	30,492
Saudi Arabia	5.7	39,439
Sweden	3.5	34,124
Guatemala	3.0	2,471
El Salvador	2.4	959

**Table 3.3**  
**Panama**  
**Exports 1984**  
**Main Destinations by Volume**

<u>Country</u>	<u>\$ million</u> <u>FOB</u>	<u>Tons</u>
USA	151.7	371,334
Germany (FDR)	16.9	154,174
Belgium	13.4	116,972
Italy	10.4	53,833
Saudi Arabia	5.7	39,439
Sweden	3.5	34,124
Puerto Rico	9.4	30,492
Costa Rica	20.4	16,963
Norway	1.2	11,657
Lebanon	1.0	7,510

Source: Situacion Economica, Comercio Exterior: Año 1984,  
 Direccion de Estadistica y Censo

**VERVIEW OF TRADITIONAL PRODUCTS**

The export activity of Panama can be subdivided into the broad classes of agricultural products and non-agricultural products. Among the former are those that are currently exported in significant volumes:

- bananas
- coffee
- sugar
- beef
- shrimp
- cocoa
- fresh fruits
- vegetables

The first four of these are the "traditional" exports, albeit some of them have only a limited growth potential in the foreseeable future, while others can quite likely expand their present volume and capture new markets.

According to World Bank analyses, many of the products listed above are facing serious problems in international trade and cannot be counted upon as prime generators of further national wealth.

For the purposes of the study, it was intended that the classification "traditional exports" signify rather more than just those items that had traditionally been exported. The classification was intended to separate those exports that had reached a level of sophistication and volume which enabled them to be managed with economic efficiency from those exports which were small in volume and were uncoordinated. The rationale behind the definition was that exports defined as being traditional in this sense could be expected to be making use of transportation in as efficient a manner as possible, as a result of their great volumes and international management expertise. On the other hand, exporters of what are defined as non-traditional products might be expected to be experiencing correctable difficulties in their use of transportation facilities.

Table 3.4 shows the total dollar value and tonnage of each of the traditional exports from Panama. By far the greatest in importance is the banana, accounting for 30% of the value of all exports, and accounting for 76% of the tonnages. These facts are

significant in demonstrating the proportionately low returns obtained from the one product that places the greatest demands on the transportation system. Second in importance is sugar, which at 14% of total export value is less than half of the value of bananas. Sugar demands only 12% of the export transport services, by tonnage proportion.

**Table 3.4**  
**Panama**  
**Traditional Products**  
**1984 Exports**

<u>Product</u>	<u>\$ million</u> <u>FOB</u>	<u>Tons</u>
Bananas	74.7	654,626
Sugar	35.0	105,713
Coffee	12.9	4,637
Meat, Beef	1.5	670
TOTAL	<u>124.1</u>	<u>765,646</u>

Over the last few years coffee, bananas, sugar, and meat have together made up between 45 and 55% of Panama's exports by value.

Sugar shares with coffee and bananas the property of being a traded commodity subject to international forces outside the control of the Panamanian producer. While meat is not strictly a commodity in the same sense, when trading with the USA it is subject to quotas and pricing forces that are not dissimilar to those that affect coffee, bananas and sugar. As shown by recent cuts by the USA in import quotas for both sugar and meat, trade in such commodities can have devastating consequences for a small country.

In terms of tonnages--one of the basic factors in a study of transportation--Table 3.4 illustrates that the four products classified above as traditional dominate exports by tonnage to an even greater extent than by value. These four traditional exports account for 85 to 95% of the total export tonnage.

**Bananas.** While Panama has very suitable conditions for the growing of bananas, and additional land could be developed for this purpose, there is a large world surplus. The market conditions have been affected in particular by large acreage increases in Ecuador and Colombia.

**Coffee.** The situation regarding coffee production and export has been complicated in Panama by a number of factors. The exportable volume has fluctuated widely, and the government has instituted an elaborate set of administrative controls (designed to reduce smuggling) that has made the processing of shipments most difficult, resulting in delays, cancellations, and loss of reliability in reaching destinations. As of spring 1987, the international outlook for coffee was pessimistic, with continuing falling prices for the foreseeable future.

**Sugar.** Panama does not have exceptionally good natural conditions (climate and soils) for sugar; the world market is capricious, with expectable low prices; and the country's laws and regulations affecting this sector are most cumbersome. Ironically, the organization of internal trade and controls makes it almost impossible for local manufacturers who use sugar as raw material to compete internationally.

**Beef.** Grass-fed beef can be regarded as a most promising export opportunity for further development. Here too price and marketing policies have hindered the industry, including artificial price levels and quota restrictions. The institutions moving the product from the ranch to export vessels lack streamlining, slaughterhouses require improvements, and the economic handling and disposition of by-products have to be developed.

It became clear during the course of the study that traditional exports operated in their own transportation environment: the large scale of the operations was such that the traditional exporters needed to share only few of the transportation facilities used by the non-traditional exporters. Bananas, for example, used their own types of refrigerated containers, used mostly dedicated banana facilities at the ports, had plantations located near the coast so that very little highway was used, and used their own refrigerated and container vessels. Thus for the most part, exporters of traditional products competed very little with the exporters of non-traditional products for the use of some parts of the transportation facilities. A study, then, of non-traditional exports becomes very much a study of the entire transportation system available in the country, and excludes only a few very specialized items of transportation that are the province of the exporter of the traditional products.

## OVERVIEW OF NON-TRADITIONAL PRODUCTS

### Non-Traditional Exports

In this study, then, non-traditional products are all the exports that remain once the four traditional exports have been removed. Clearly, these run into several hundred different traded items, and so aggregation is necessary to facilitate the interviewing and subsequent analysis.

Treatment on an aggregated basis was also necessary because individual export items did not appear in the national statistics every year. Factors combined differently each year to make export products either profitable or not: exporters would be active in years of economic returns, and inactive in years where their product was not competitive overseas. For most exporters of non-traditional products, there was little attempt at planning and putting into effect a program for increasing exports, it being considered that the future was far too uncertain for them to make such a commitment.

The classified listing of non-traditional exports--based on 1984 statistics--is shown in Table 3.5. The table shows the effect of the removal of bananas, coffee, sugar and meat from the exports.

Thus non-traditional exports account for about \$132 million and about 100,000 tons, or about 52% of the value of all exports and about 12% of the volume. Even with the traditional exports removed from the first category, the export of food and live

animals managed to account for 62% of the value of all non-traditional exports and 37% of the volume. Thus the export of fresh, semi-processed and processed agricultural products constitutes the major non-traditional sector in Panama.

Since none of the manufactured products of Panama are traditional exports, the removal of traditional exports from the total results in these becoming a more significant portion of the non-traditional activities.

To make the discussion that follows more applicable to the typical non-traditional exporter, exports of fuels and lubricants from Panama's oil refinery will be treated as a traditional export. The arguments for the exclusion of this group are the same as for the exclusion of bananas, coffee, sugar, and meat: a basic commodity, worldwide supply and demand influences, a few large producers, and specialized transportation requirements.

**Table 3.5**  
**Panama**  
**Non-Traditional Products**  
**Exports 1984**

<u>Class.</u>	<u>Description</u>	<u>\$ million</u> <u>FOB</u>	<u>Tons</u>
0	Food & Live Animals	82.4	35,252
1	Drinks & Tobacco	4.5	2,071
2	Raw Materials Etc.	3.1	13,304
3	Fuel & Lubricants	5.6	29,142
4	Vegetable & Animal Oils	0.4	1,560
5	Chemical Products	8.5	3,641
6	Manufactured Items	13.9	9,121
7	Machinery & Transport Equipment	0.6	341
8	Other Manufactures	12.6	894
9	Others & Special Transactions	0.6	-
	Transactions	-----	-----
	TOTAL	132.2	95,326

## Exports by Mode

Table 3.6 is intended to demonstrate the relative importance of the three transportation modes in the export of non-traditional products. The table groups the products according to the most applicable sub-category of the SITC system presented previously, and shows the percentage by value and volume within each group that leave the country by each form of transport.

It should be noted throughout the relative dominance of the land and maritime modes results in an undervaluation of the importance of air freight. Under food products, for example, shrimps, lobsters and fish use air freight almost exclusively, but the value and volume are so small that no entry is shown in the table.

In almost every group of exports, and especially in exports of the major food and agricultural products, sea transport played a significant role. Land transportation is used for intra-regional trade of various types of industrial products. Air transport is used for the high unit value exports of textiles, machinery and equipment.

A study of unit prices showed that only sea transportation could provide an economical service for basic agricultural exports. Road transportation in the region became economical when the f.o.b. unit value was of the order of \$400 per ton, and the air transportation threshold was about \$1,500 per ton. For most of the products exported by air, particularly clothing, where the value added in the country was so small, the limiting unit value was about \$20,000 per ton. An average unit value for air transport was \$10,000 per ton.

**Table 3.6**  
**Panama**  
**Export of Manufactures**  
**Distribution by Mode**  
**% of Value (\$), Volume (T)**

<u>Industry Classification</u>		<u>Transport Mode</u>		
		Land	Sea	Air
Food Products	% \$	16	84	0
	% T	11	89	0
Drinks	% \$	54	45	1
	% T	44	56	0
Tobacco	% \$	4	96	0
	% T	26	74	0
Textiles	% \$	1	67	33
	% T	1	91	8
Paper Products	% \$	40	60	0
	% T	52	48	0
Chemicals, Plastics	% \$	45	42	13
	% T	57	39	4
Glass Etc.	% \$	19	81	0
	% T	17	83	0
Basic Metals	% \$	50	50	0
	% T	30	70	0
Machinery, Equipment	% \$	19	1	80
	% T	19	77	4

Source: Sindicato de Industriales de Panama, Asociacion Panameña de Exportadores

## NON-TRADITIONAL AGRICULTURAL EXPORTS

### Seafood

Export of seafood, particularly shrimp is a commercial activity with considerable promise. There is great potential for the development of salt-water farms along the marshy coastline, the product carries a premium price in world markets, and the demand is far from being exhausted. There is a series of actions that the government should take to encourage and regularize this industry. These actions include the granting of concessions and creating a favorable climate for investment.

Table 3.7 shows the export situation of fish and crustacea in 1984. The value of the group was nearly \$60 million, and the volume was about 8,000 tons. Apart from small consignments of shellfish for Guatemala, the whole of the catch was destined for the USA.

The single major item in this group is shrimp, which accounted for 85% of the value in 1984. This particular year marked a low point in a decreasing trend that had been in effect from a peak in 1982 of \$53 million. Estimates for 1985, however, are as high as \$60 million, and the improvement looks set to continue.

All fish and crustacea, other than those in cans, require transportation in temperature-controlled equipment. Thus the choice is between refrigerated 40-foot containers or air freight. From Panama use is made of both modes, though there is always a preference to use air transport where circumstances permit. A

40-foot container can take a considerable time to fill with shrimp, for example, and refrigerated storage facilities are required in the meanwhile. A single 40-foot container, when full, can be holding cargo to the value of up to \$500,000, and as such represents a potentially considerable risk. Air freight is better suited to small and frequent quantities, where the higher cost can be offset against better market prices for fresher products. This sector is thus particularly concerned with the status of air transport in Panama, though at the time of the study there were no major impediments reported.

**Table 3.7**  
**Panama**  
**Exports 1984**  
**Fish & Crustacea**

<u>Description</u>	<u>\$ 000</u> <u>FOB</u>	<u>Tons</u>
Fish, Fresh	515	208
Fish, Others	286	12
Shrimps, Fresh	49,223	5,860
Lobsters, Fresh	1,185	73
Shellfish, Fresh	115	376
Shellfish, Processed	561	56
Canned Sardines	385	255
Canned Shellfish	5,483	1,267
	<hr/>	<hr/>
TOTAL	57,796	8,108
TOTAL TO USA	56,893 (98%)	

Source: Direccion de Estadistica y Censo

## Fruits and Vegetables

The climate and soil of Panama are not the best possible for the growing of fruits and vegetables, but significant opportunities exist nevertheless. The international market is most receptive, provided that the price is competitive, consistent quality can be assured, and the product is delivered reliably.

Two such products that have already entered the export trade are plantains and melons--moving to markets in the United States. In both cases, again, better institutional structures are required, and specific permanent arrangements need to be made for the movement of products. Further concerns are that plantains are vulnerable to certain diseases and that melons are highly perishable. (Other fruit and vegetables have potential too, but their production and export have not yet been developed.)

The production of cocoa has fluctuated in Panama (currently in decline), and the infrastructure associated with this sector is highly unbalanced. With better organization-- particularly more efficiency at the growing end--the potential for expansion is quite real.

Tables 3.8 and 3.9 demonstrate the relative importance of two major agricultural sector exports: fruits and vegetables, and cocoa.

Among the fruits and vegetables, it should be noted that the biggest single fresh item is melons, though with a value of \$371,000 in 1984 this only accounted for 6% of export value in this category. Other fresh fruit and vegetable items were not exported in any significant quantity. Melons have a unit value that mandates the use of maritime transport. They require facilities to cool the crop at harvest and they require temperature-controlled transport facilities. The normal transport mode was a 40-foot refrigerated container, and this was often used to cool the harvested melons. Poor packing practices and poor roads frequently resulted in bruising and low sales prices in the USA.

The total demand for refrigerated containers for non-traditional fresh fruit and vegetables is between 30 and 40 in any year. Considering that at a typical call shipping companies expect to collect 30 to 50 containers, the demand from this sector is not great. The opportunities for cost reductions through consolidation are limited, unless the volume is substantially increased.

**Table 3.8**  
**Panama**  
**Exports 1984**  
**Fruits & Vegetables**  
**(Non-Traditional)**

<u>Description</u>	<u>\$ 000</u> <u>FOB</u>	<u>Tons</u>
Melons	371	875
Banana Etc. Puree	2,346	5,504
Fruit Extracts	2,390	1,351
Yuca & Tubers	129	80
Preserved Vegetables	923	854
	<hr/>	<hr/>
TOTAL	6,159	8,664
TOTAL TO USA	1,841 (30%)	

Notes:

1. 100% of melons destined for USA
2. 90% of puree destined for Europe
3. Fruit extracts destined equally to USA and Costa Rica
4. 90% of yuca destined for USA
5. 100% of preserved vegetables sold in Central America

Source: Direccion de Estadistica y Censo

**Table 3.9**  
**Panama**  
**Exports 1984**  
**Cacao, Cocoa, Chocolate**

<u>Description</u>	<u>\$ 000</u> <u>FOB</u>	<u>Tons</u>
Cocoa Beans	339	150
Cocoa Powder	125	95
Cocoa Butter & Paste	4,230	1,297
	<hr/>	<hr/>
TOTAL	4,694	1,542
TOTAL TO USA	3,927 (84%)	

Source: Direccion de Estadistica y Censo

Purees, extracts and preserves require refrigeration unless preservatives are added, particularly if the preserving process involves freezing. The exports of Panama in this category were a mixture of both refrigerated and unrefrigerated product. More than 84% of the processed fruits and vegetables went by sea, 16% went by land--mostly to Costa Rica--and a small amount went by air.

Of particular potential for Panama and other countries in Central America is cacao, and its products cocoa and chocolate. As Table 3.9 shows, in 1984 this single group was already worth nearly as much as the fruits and vegetables group, though at a fraction of the volume. While exporting beans and powder were potential activities, the main interest was in exporting cocoa butter and paste. More than \$4 million of this one category was exported in 1984.

In expanding the variety and scope of products that hold good potential for export from Panama, the effort should logically build upon the current capabilities, particularly as related to existing agricultural practices, climate and soil, production experience and skills, and certainly on the existence of specific consumer demand abroad.

World Bank studies have concluded that in the horticultural fruit and vegetable sector, beyond plaintains and melons which are already moving into the export trade, the following produce has considerable potential: ocra, cassava, cucumbers, strawberries, and eggplant.

All of these items can be grown effectively in Panama, and they all have the advantage of having a high unit value permitting the use of air freight and distant markets. On the down side, however, these items need considerable attention paid to their packaging and transportation if they are not to deteriorate on their way to the markets.

Spices and medicinal plants are a possibility, but significant trade volumes cannot be anticipated.

Cut flowers can also be considered--there is a large market, but other countries have already established strong export flows. Growers in Panama would have to not only penetrate this market, but also expend considerable organizing efforts to establish the specialized transport services leading from the fields (Chiriqui, probably) to airports to US metropolitan areas.

Forestry resources are abundant in Panama and much more could be done with them in industrial and trade development (as has been concluded by a number of studies). Tropical hardwoods can be grown and harvested; timber can be exported in a raw or cut form; production industries leading to finished products can be developed. All of this, however, will take considerable time because of the low level of current activity. Furthermore, great caution and sensitivity toward ecological issues will have to be applied since many examples around the world show how easily such efforts can become counterproductive in the long term through thoughtless exploitation. Nevertheless, when backed and controlled by suitable programs, the forestry sector represents one of the major resource areas for Panama.

#### **NON-TRADITIONAL INDUSTRIAL EXPORTS**

Panama counts about 30 basic categories of non-traditional industrial exports under the headings of basic raw materials, chemical products, basic manufactures and other manufactured goods. The values and the volumes of these in 1984 are given in the following tables.

Only leather, leather goods and clothing stand out as significant among industrial exports, the rest being small quantities of a variety of goods distributed to all parts of the world. To achieve this distribution, advantage has been taken of incentives offered by carriers to accept any commodity for an otherwise empty return journey.

**Table 3.10**  
**Panama**  
**Exports 1984**  
**Basic Raw Materials**

<u>Description</u>	\$ 000	
	<u>FOB</u>	<u>Tons</u>
Skins & Furs Etc.	266	623
Wood	223	4,201
Waste Paper	3	27
Textile Fibers & Waste	2	50
Scrap Metal	2,375	6,896
Inedible Animal/Veg. Products	188	1,506
	<hr/>	<hr/>
TOTAL	3,057	13,303

**Table 3.11**  
**Panama**  
**Exports 1984**  
**Chemical Products**

<u>Description</u>	\$ 000	
	<u>FOB</u>	<u>Tons</u>
Basic Chemicals	437	1,412
Paints Etc.	2,637	1,209
Pharmaceuticals	1,749	59
Perfumes, Essences, Cosmetics	1,711	274
Explosives & Sundries	1,949	687
	<hr/>	<hr/>
TOTAL	8,483	3,641

Note: Most of the above products were destined for sale in Central America.

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**Table 3.12**  
**Panama**  
**Exports 1984**  
**Basic Manufactures**

<u>Description</u>	<u>\$ 000</u> <u>FOB</u>	<u>Tons</u>
Goods of Leather & Fur	6,856	3,248
Rubber Goods	494	181
Wood Products, not Furniture	1,383	1,444
Paper & Cardboard	2,273	2,345
Textile Fiber Products	452	156
Glass Containers Etc.	611	1,103
Gold, Silver, Gems, Etc.	222	598
Basic Metals	882	286
Shaped Metals	716	357
Others, Mixcellaneous	683	578
	<hr/>	<hr/>
TOTAL	14,572	10,296

Notes:

1. Half the value of leather goods to to Italy, and most of the rest goes to the USA. Italy imports at a unit value of \$1.6/kilo, while USA imports at a unit value of \$5.4/kilo.
2. All silver and gems go to Colón Free Zone.
3. Most of the remaining products are sold in Central America, particularly in Costa Rica.

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**Table 3.13**  
**Panama**  
**Exports 1984**  
**Other Manufactured Goods**

<u>Description</u>	<u>\$ 000</u> <u>FOB</u>	<u>Tons</u>
Construction Materials	3	0.2
Furniture	49	12
Luggage, Bags	283	6
Clothing	9,298	335
Shoes	1,667	43
Others	1,311	498
	<hr/>	<hr/>
TOTAL	12,611	894

Note:

1. 22% of clothing goes to USA, and 7% to the Colón Free Zone.
2. Most exports in this group are small consignments to a variety of countries.

About 50% of manufactured goods from Panama go to the United States, and nearly 90% are destined for continental America or the Caribbean. The remaining 10% is accounted for by Europe, of which Italy imports 89%.

The 50% imported by the USA is nearly all in the form of refined sugar or molasses, and as such is probably not a non-traditional export. Excluding this one item puts Costa Rica as the main importer of non-traditional manufactured products, and Italy as the main overseas importer. The percentage distribution by value is shown in the Table 3.14.

**Table 3.14**  
**Panama**  
**Worldwide Distribution of Exports**  
**Manufactured Goods**  
**1986**  
 (% of Total Value)

<u>Area</u>	<u>Percent</u>	<u>Country/ Region</u>	<u>Percent</u>
World	100		
America	89		100
		North America	56
		USA	56
		Central America	29
		Caribbean	10
		South America	5
Europe	10		100
		Italy	89
Asia	-		100
		Saudi Arabia	33
		Japan	21
Oceania	-		100
		Australia	100

Non-traditional manufactured exports use the following as their main modes of transportation:

- o by sea using regular liner service, mostly in 20-foot and 40-foot containers
- o by land to the rest of Central America, particularly Costa Rica, mostly in 20-foot and 40-foot containers and some in open trucks
- o by air. Textiles accounted for the bulk of this traffic.

No specific problems were encountered from users of sea transport, other than those problems discussed elsewhere in this report. For those who used intra-regional trucking, the greatest inconveniences were the delays at the frontiers and the restrictive practices regarding trucking in neighboring countries. These factors were considered to be major contributors to the high cost of intra-regional trade. Air transport users were satisfied with the service but estimated that the cost was high.

## **EXPORT INCENTIVES**

### C.A.T.

To encourage greater export activity from Panama (and to counter some of the constraining regulations), the government enacted a system of tax credit certificates (Certificado de Abono Tributario--CAT) which can be used, in turn, to pay taxes and customs tariffs. The certificates are transferable, and they can

be cashed in immediately. The amount of the CAT is equal to 20 percent of the local value added for non-traditional products, which have to be grown or manufactured at least partially in Panama. The definition of non-eligible products is quite strict and it encompasses, besides the regularly exported commodities, also shrimp, beef, live animals, fish meal, minerals, metals, etc., as well as merchandise from the Colón Free Zone.

The impact of this program has been quite dramatic. The value of non-traditional exports rose from US \$9.3 million in 1975 to US \$74.5 million in 1982; and the ratio of these commodities with respect to the total export volume changed from 3 to 24 percent. While the statistics are impressive, there is no real proof that significant actual growth (besides participation in the program) has taken place as a result or that any diversification has occurred.

Thus, not all the expectations have been fulfilled, and the problems relate particularly to the fact that the participants have been highly concentrated--a few firms in a few industries. Almost all the CATs have been associated with seafood, other processed food, tobacco, clothing, and leather products.

### "Maquila"

The Government of Panama has started another effort--the so-called maquila program--to expand exports and employment. Participants are required to export their entire output, but they are allowed to import machinery and supplies duty-free; they are exempt from sales, export, and corporate income taxes; and--most importantly--they can employ workers under a controlled training program outside the Labor Code.

The activity under this program has been relatively slow, and all the participants so far have come from the clothing/apparel sector. The basic problem is that the exemption from the Labor Code applies only to a three-month training program, and consequently various improvisations are made and the enterprises lack a permanent commitment.

### GENERAL OBSERVATIONS

Panama is still basically a service-oriented country, deriving most of its commercial income from activities associated with the Panama Canal. The exporting of locally-manufactured or produced items is not yet a well-established activity, in contrast to the re-export of goods of basically foreign manufacture through the free zone. Table 3.5 showed that 100,000 tons of exports valued at \$132 million left Panama in 1984. This volume cannot be considered a significant amount in terms of the potential it represents for transportation price concessions.

It should be noted that the average unit value of non-traditional exports is \$1,320 per ton, reflecting that the composition of these exports veers towards the higher-priced products with greater value-added (see "Sensitivity of Price to Transportation Costs" for more details). Such an average unit price as this indicates that most exporters of non-traditional products are far less sensitive to increases in transportation costs than their neighbors throughout the region. It is essential that the advantage be maintained.

# PANAMA

## CHAPTER 4

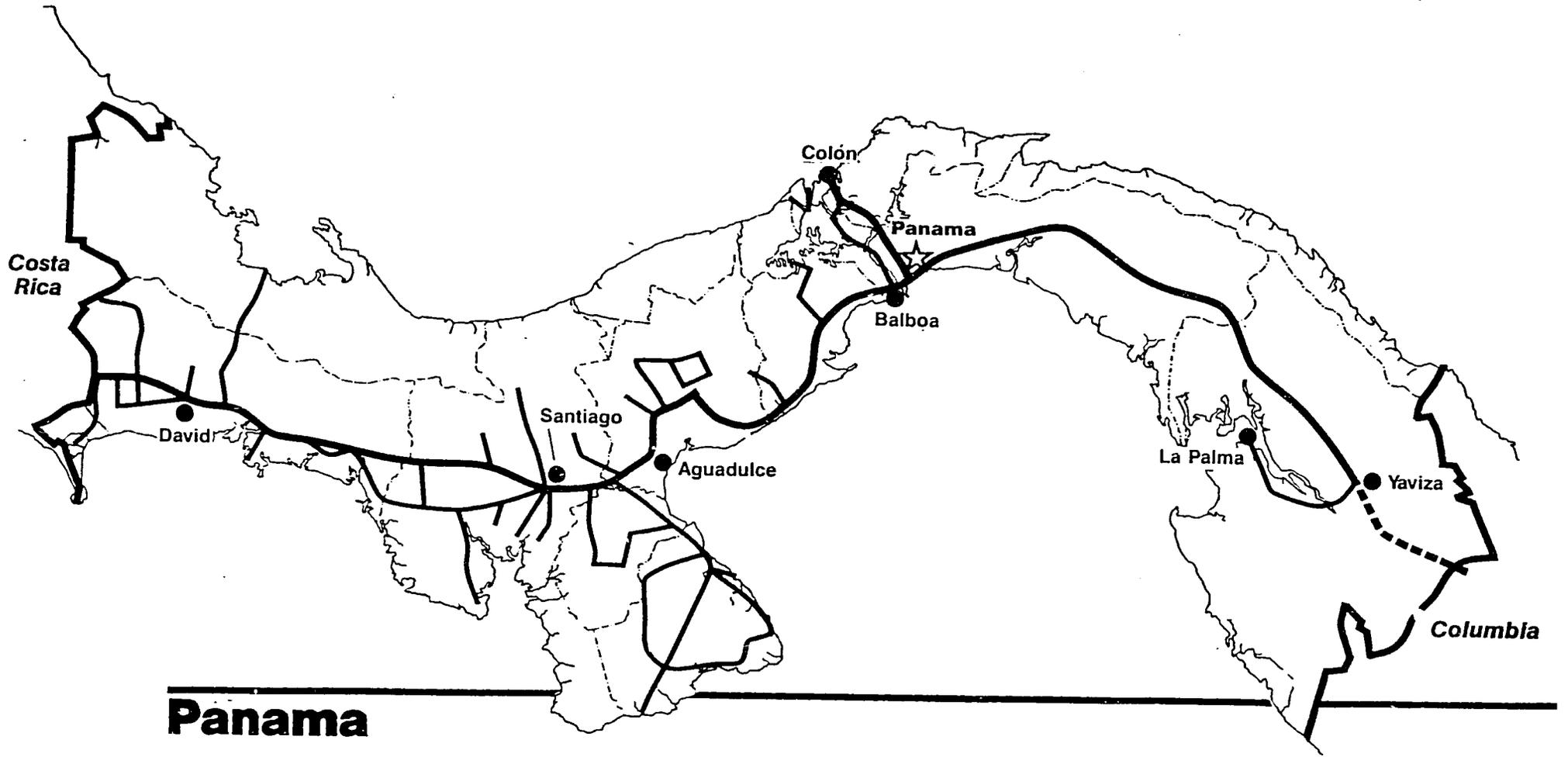
### NATIONAL TRANSPORTATION

#### ROAD TRANSPORTATION

The greatly elongated shape of Panama is reflected in the layout of the road system--there is basically one major road running west to east with several larger or smaller branches perpendicular to the main line.

The total length of roadways in 1984 was 9,525 km, of which 740 km (8 percent) had hard concrete or asphaltic concrete surfaces, 2,285 km (24 percent) were covered by asphalt, 3,943 km (41 percent) had some weather-proof surface treatment, and 2,559 km (27 percent) were unpaved. The total road system continues to expand: there were 8,459 km in the network in 1980.

The development and maintenance of an efficient road system are complicated by the frequently rough topography and the many small rivers that run from the central chain of hills to both seashores. Much grading, a great number of bridges, and continuous repair were determined to be needed.



**Panama**  
**Highways**

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## The Highway System

Route #1 (the National Highway) is a segment of the Pan American highway and extends the length of the country. It is the circulation and communications spine of Panama; although the quality and passability of the roadway are quite inferior in the eastern section, through the Province of Darien toward Colombia. The most significant cross-link, and the only major roadway that runs from the coast to coast, is the highway connecting Panama City to Colón, the Trans-Isthmian Highway.

The Peninsula de Azuero (Provinces of Herrera and Los Santos) has a secondary network in place, but all the other communities not directly on Route #1 are reached by branch roads that are most frequently dead-end links.

## The Trans-Isthmian Highway

The Trans-Isthmian Highway is about 92 km long between Panama City and Colon; for most of its length, the facility consists of two lanes only, although four-lane, divided sections exist at both urban ends. The highway is deficient at numerous places regarding dimensions, sight distances, and other features considered to be necessary under contemporary highway standards; in particular it lacks adequate hard shoulders. The absence of these leads to hazardous conditions when there are stopped or disabled vehicles, or when buses have no pull-out spaces for passenger loading. The highway is undoubtedly a critical communications link for Panama, not only because it connects the two principal activity and urban nodes at either end of the Canal, but also because numerous factories have been located along this corridor. Thus, many distribution activities depend on this facility, and its ability to accommodate traffic efficiently and safely is a vital concern.

Fuel storage tanks at Panama City have capacity for only four days of demand, creating the need for constant tanker traffic to the City from the refinery at the other end of this road.

### Vehicular Fleet

The total number of vehicles in the country had reached 177,000 units in 1984. Most of them were registered in the Province of Panama (66 percent), and the rate of increase has been high. (The total fleet was 138,000 in 1980.)

The number of commercial vehicles was 41,300 units, while 10,400 were official cars and 125,300 were private automobiles. Many of the trucks are bought as used vehicles in the United States, but even these are subject to an import tax of 32%.

Trucking Operations. There are two large trucking companies in the country (Panama and Chiriqui) that have been in operation for well over half a century. They have large fleets, and they operate as virtual monopolies. Complaints about this state of affairs have been frequent. Recently, however, the large motor vehicle carriers experienced financial difficulties caused by union pressures, the loss of political connections, and, above all, competition from dozens of small trucking enterprises. The latter typically have only one or two vehicles each (and they are not always bonded), but they are the more vigorous in soliciting business.

There are also several issues related to trucking operations beyond the national borders of Panama. One of these is problems with security on roads, particularly through areas that are subjected to military activity. There are also protectionistic laws that require that most cargo to other Central and South American countries be carried in local vehicles. This is causing

high costs and international disputes. At the time of the study, trucking between Panama and Costa Rica was causing no particular problems: it was common for produce from the western provinces of Panama to be taken to the nearer port of Puerto Limón. Recent attempts to restrict this flow had not been successful.

In addition to the data collected by the field team in the Fall of 1986 and presented in this report, the following has been included as a pertinent review of the land transportation situation in Panama in 1984, as observed by a World Bank study team.

#### Land Transportation Problems (World Bank Findings)

In addition to the data collected by the field team in the Fall of 1986 and presented in this report, the following has been included as a pertinent review of the land transportation situation in Panama in 1984, as observed by a World Bank study team.

Much land transportation in Panama is pervaded by monopolistic or quasi-monopolistic practices which raise costs for the whole economy and are particularly onerous for exporters. Although trucking is not systematically regulated by the government, individual owner-operators form themselves into cooperatives which control access to routes and cargo and fix rates. Moreover, the trans-isthmian route between Colón and Panama City is dominated by two carriers, Terminales Panama and Terminales Chiriquí. In 1981 these firms accounted for about half of trans-isthmian road freight and 60 percent of cargo loaded for inland destinations at the ports of Cristobal and Balboa. Given the market collusion with the independent truckers' cooperatives, the only competition for trans-isthmus traffic is the rundown railway, whose traffic is declining both absolutely and as a share of the total. The railway's already severe competitive

disadvantages in terms of time and reliability are compounded by current tariff policies. A container unloaded at Balboa onto a rail freight car with final destination at the Colon Free Zone must be unloaded off the car within the boundaries of the port of Cristobal, since there is no rail link to the Zone. Instead of being charged only for the cost of this extra handling, the sea carrier is charged full wharfage and handling charges at Cristobal as well as Balboa.

**Table 4.1**  
**Land Freight Traffic by Carriers, 1976 and 1981**  
(in thousands of tons and % of total)

	1976		1981	
	<u>Quantity</u>	<u>Percent</u>	<u>Quantity</u>	<u>Percent</u>
<u>Trans-Isthmus Freight*</u>				
Terminales Panama	207.4	33.5	271.0	37.5
Terminales Chiriqui	59.9	9.7	75.0	10.4
Independent Carriers	<u>172.5</u>	<u>27.8</u>	<u>222.4</u>	<u>30.7</u>
Total road	<u>439.8</u>	<u>71.0</u>	<u>568.4</u>	<u>78.6</u>
Rail	<u>180.0</u>	<u>29.0</u>	<u>155.0</u>	<u>21.4</u>
Total	<u>619.8</u>	<u>100.0</u>	<u>723.4</u>	<u>100.0</u>
<u>Inland Cargo from the</u>				
<u>Ports*</u>				
Terminales Panama	20.4	47.1	26.7	47.7
Terminales Chiriqui	5.9	13.6	7.4	13.2
Independent Carriers	<u>17.0</u>	<u>39.3</u>	<u>21.9</u>	<u>40.1</u>
Total	<u>43.3</u>	<u>100.0</u>	<u>56.0</u>	<u>100.0</u>

\* There may be some overlapping of the two cargo categories; it is not known how much of the trans-isthmian traffic is transshipment.

Source: Panama Railway: Marketing Study 1982

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This market dominance was until recently reinforced by land transport revenue allocation by the Maritime Conferences. The Conferences would agree to divide cargo to be transported inland, or transitted overland from one port to another, in accordance with a prior revenue sharing arrangement negotiated among the truckers. The arrangement also included the railway. While most cargo entering and leaving Panama is not now controlled by formal Maritime Conferences, this has not stopped collusion among truckers' or the reported continued freight allocation by individual shipping lines to trucking companies.

The recent recession has led the trucking industry to press successfully for protection against foreign truckers and reinforced resistance to entry by new operators. The impact on costs may be illustrated by the example of an agroindustrialist who exports part of his output to Costa Rica and imports some of his raw material from Guatemala. Both importing and exporting is regular, thereby facilitating, in theory, the use of the same truck to bring the raw materials and carry the finished goods. However, foreign truckers are now prohibited from hauling cargo of Panamanian origin in Panama; consequently, the foreign truck bringing in the raw material must return empty. Because of higher tariffs charged for both sections of the haul, and extra handling charges, the cost of the exported product c.i.f. Costa Rica is increased by about 4%.

In a manner reminiscent of textbook monopoly practice, truckers have sharply increased tariffs in response to a decline in business. The cost of transport from the Colón Free Zone to ports and airports has increased by between 15 and 150% since 1982.

**Table 4.2**  
**Cost of Land Transportation, 1982 and 1984**  
**(US\$ per container/truck)**

From Colon Free Zone to:	<u>Containers</u>		<u>%</u>	<u>Bulk</u>		<u>%</u>	<u>Break-Bulk</u>		<u>%</u>
	1982	1984	Change	1982	1984	Change	1982	1984	Change
Bahia las Minas	75	125	66.7	175	200	12.5	100	200	100.0
Balboa	175	200	14.3	300	400	33.3	80	200	150.0
Cristobal	75	150	100.0	150	180	20.0	60	85	41.7

Source: Mission Interviews

These truck tariffs, which amount to almost 20 cents per ton/kilometer, are among the highest in the world. The tariffs shown in Table 4.3, for countries other than Panama, are those for short distances, generally of less than 200 km, and for trucks carrying general cargo with a capacity of between 12 and 20 tons. In all cases, loading and unloading costs are included in the tariff.

**Table 4.3**  
**Truck Tariffs in Panama and Other Countries, 1983**  
**(US cents per ton-kilometer)**

<u>Country</u>	<u>Average Truck Tariff</u>
Panama	19.85
Nigeria	13.48
Benin	10.06
United States	10.02
Brazil	9.60
Korea	9.60
Bolivia	8.55
Argentina	8.43
Mexico	8.20
Chile	7.93

Source: World Bank Staff Appraisal Reports and Estimates

These high rates not only reduce the country's competitiveness, but also impede the growth of new service activities. These might, for example, include a trans-isthmian intermodal system which could build upon the changes in transport technology imposed by the advent of large container vessels of some 4,500 TEU capacity. The operating costs of these vessels make them very sensitive to waiting time to enter the Canal which they would only be able to transit by day. If they could use their waiting time to load and unload containers, then this could give Panama a real advantage as a transshipment center. Land transport across the Isthmus could then be used to move cargo to smaller distribution vessels. This already takes place on a limited scale; RO-RO services<sup>1</sup> for high value commodities have been operating in Panama since the early 1960's.

Despite being considerably more expensive, RO-RO competes with traditional shipping services through its time and reliability advantages. However, the significant expansion of such services to cover normal trans-isthmian container traffic would require a door to door operation based upon a through bill of lading, as well as careful blend of operational and infrastructure improvements. One entity (usually a specialized forwarding agent) would take responsibility for the whole movement. The system's success would depend upon competitiveness and efficiency at each stage of the operation. In Panama, on average, the cost of the

<sup>1</sup> Roll-on-Roll-off services transport loaded truck trailers by ship. The trailers are hauled off the ship at destination port by local tractors which may also take them to their final destination. This kind of operation is particularly attractive for containerized cargo.

land transport portion averages 19.5 percent of the combined land-sea revenue<sup>2</sup>. This is a much higher percentage than would normally be expected; the average for other, similar countries is 5 percent. Distances are, moreover, shorter than average in Panama which should reduce, rather than increase, the land transport portion of the cost.

It is possible that economic pressures will eventually erode monopoly practices in the trucking industry. However, once economic recovery takes place, they may return to hinder growth. This could be avoided by prohibiting them by law and by ensuring free entry into trucking, subject to safety and environmental specifications. Lifting the prohibition on the operation of foreign truckers in Panama would reinforce such measures.

The present study concluded that the conditions encountered by the World Bank in 1984 still prevailed in 1986, and the conclusions were still valid.

It was determined that there was no facility in Panama for the training of truck drivers, there was no school for the training of mechanics in the repair and maintenance of equipment, and there was no permanent establishment for the training of managers of trucking companies. Considering the importance of trucking to the Panamanian economy, and considering the problems associated with this sector of the transportation industry, it was considered that these were serious omissions.

<sup>2</sup> For containerized cargo U.S. West Coast to Caracas, Venezuela.

Source: Panama: Structural Change and Growth Prospects, The World Bank, 1985.

A normal service provided by truckers elsewhere is that of consolidation of less-than-containerload (LCL) shipments. Under this service a customer's consignment is taken to a central collection point, where it is then combined with other consignments in containers bound for the same destination. In this way, shippers with quantities that would not normally permit taking advantage of container rates are able to do so. This service was not provided by trucking companies in Panama. To a limited extent it was provided by large shipping lines with their own land transportation organization.

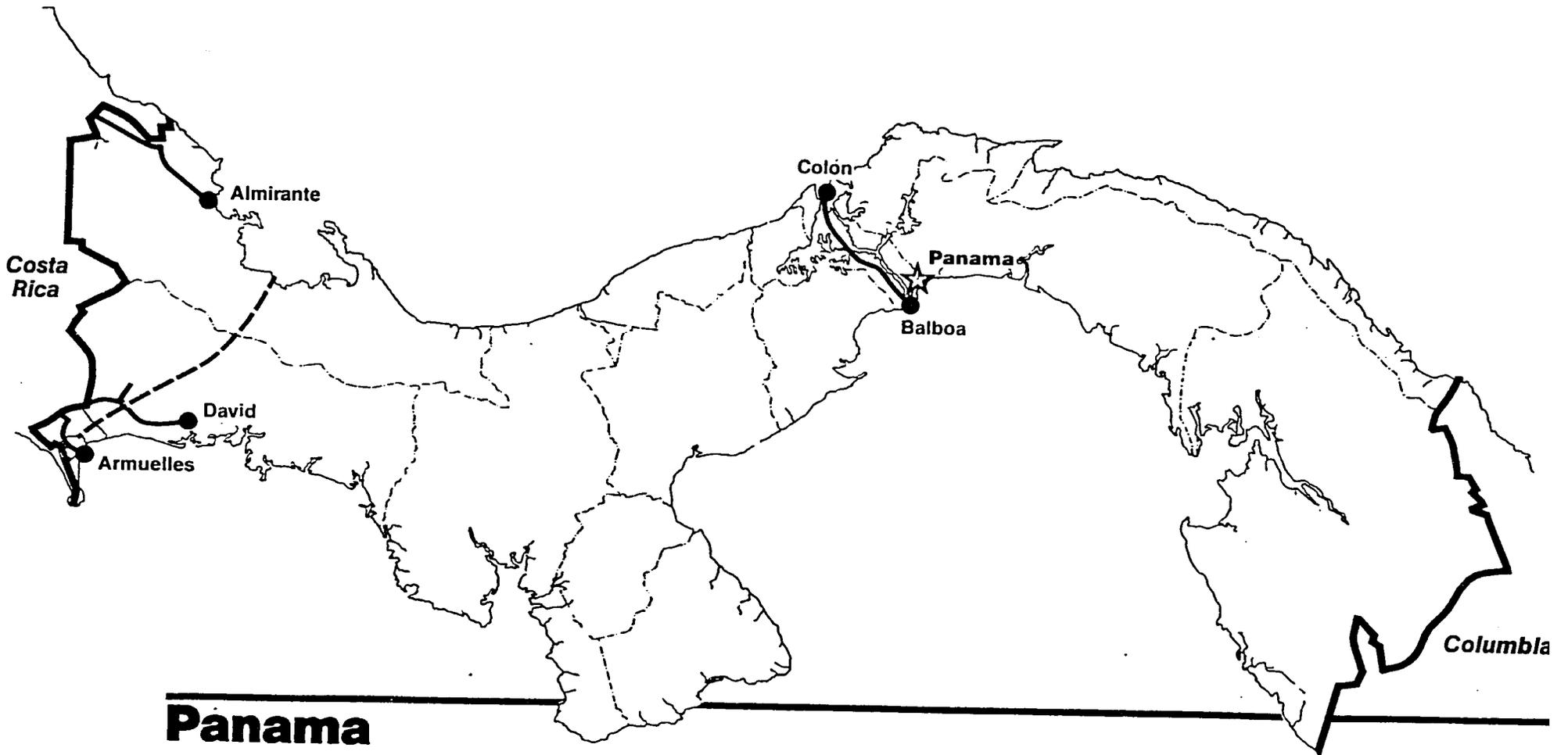
Discussions with users of transportation service revealed a reluctance to deal with consolidation of LCL shipments. The prevalent feeling was that containers were a major source of security against pilferage, breakage and other losses, and that LCL consolidation lost for them what they saw as being the main advantage of containers.

At the time of the study the coast-to-coast cost of trucking a 40 foot container was \$350, and \$320 for a 20 ft. container. Recent competition had also made it possible to secure rates as low as \$250. On a cost per ton km basis, these rates represented about \$0.20 to \$0.30, or a 25% increase since 1984.

## **THE RAILROAD SYSTEM**

### **The Panama City-Colon Rail Line**

The Panama City-Colón line is the principal rail line in the country and was built in 1855 to move gold prospectors and to transship goods between the two oceans long before the Panama Canal was opened or even seriously planned. It assisted materially in the construction of the Canal. It was relocated



# Panama

## Railroads & Pipelines

- Pipeline
- Railroad

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somewhat in that process, and was within the jurisdiction of the Canal Zone for decades. The Panama Railroad was operated by a separate, North American company.

The line is 79 km long, and it carries both passenger and freight traffic. Passenger volumes have decreased considerably since most workers in the ports and particularly in the Colón Free Zone now depend on buses and private cars. Furthermore, total employment has decreased in general in the Colón area, thus reducing rail patronage. At the time of the study the cost of moving a 20 ft container from coast to coast by rail was \$78.

### Other Rail Lines

Chiriqui. The other major rail line is the Chiriqui National Railroad that runs between La Concepcion and Puerto Armuelles in the western part of the country. Its primary purpose was to move agricultural products. It carries passengers, but the ridership has dropped precipitously (156,000 patrons in 1980; 54,000 in 1984). Likewise, the total distance accumulated by trains in a year has decreased from 102,380 km in 1980 to 63,555 km in 1984.

Bocas del Toro. Another small line exists in Bocas del Toro to serve banana-growing areas.

### Problems for Rail Freight.

The rail freight business consists of containers, bulk cargo, automobiles, and packaged goods. The rolling stock is in need of improved maintenance. The track is also in a substandard condition. In some places the speed has to be kept below 10 mph. It is generally understood that the railroad is "sick" at this time, and shippers claim that it takes weeks to get a container to port via the railroad. Over the years, the railroad has lost most of its business to trucks.

### Potential Upgrading or Replacement.

A plan, with some preliminary design, has been advanced to upgrade significantly the Panama City-Colón rail line. The estimated cost is about \$40 million. It is generally believed that this is a feasible idea, particularly if the emphasis is placed on containerized cargo with at least two trips per day. On the other hand, the same ease of mobility and distribution could perhaps be achieved by concentrating resources toward a substantial improvement or widening of the highway between the two urban centers. It has even been suggested that the railroad line be eliminated entirely and a roadway for trucks constructed within its right-of-way.

Possible Role for Rail in the Centro Puerto Concept. To exchange loads rapidly between the two terminals of the proposed Centro Puerto, which is discussed subsequently (particularly to move containers), an efficient rail link would be of great advantage. Thus, if the concept is to be implemented, and all its components integrated fully into a coordinated system, the rebuilding and reorganization of the Panama railroad assumes considerable significance. The costs of transport would be much lower as compared to the trucking/highway option. Another possibility in connecting the two nodes is the use of barges along the Canal.

## MARITIME TRANSPORTATION

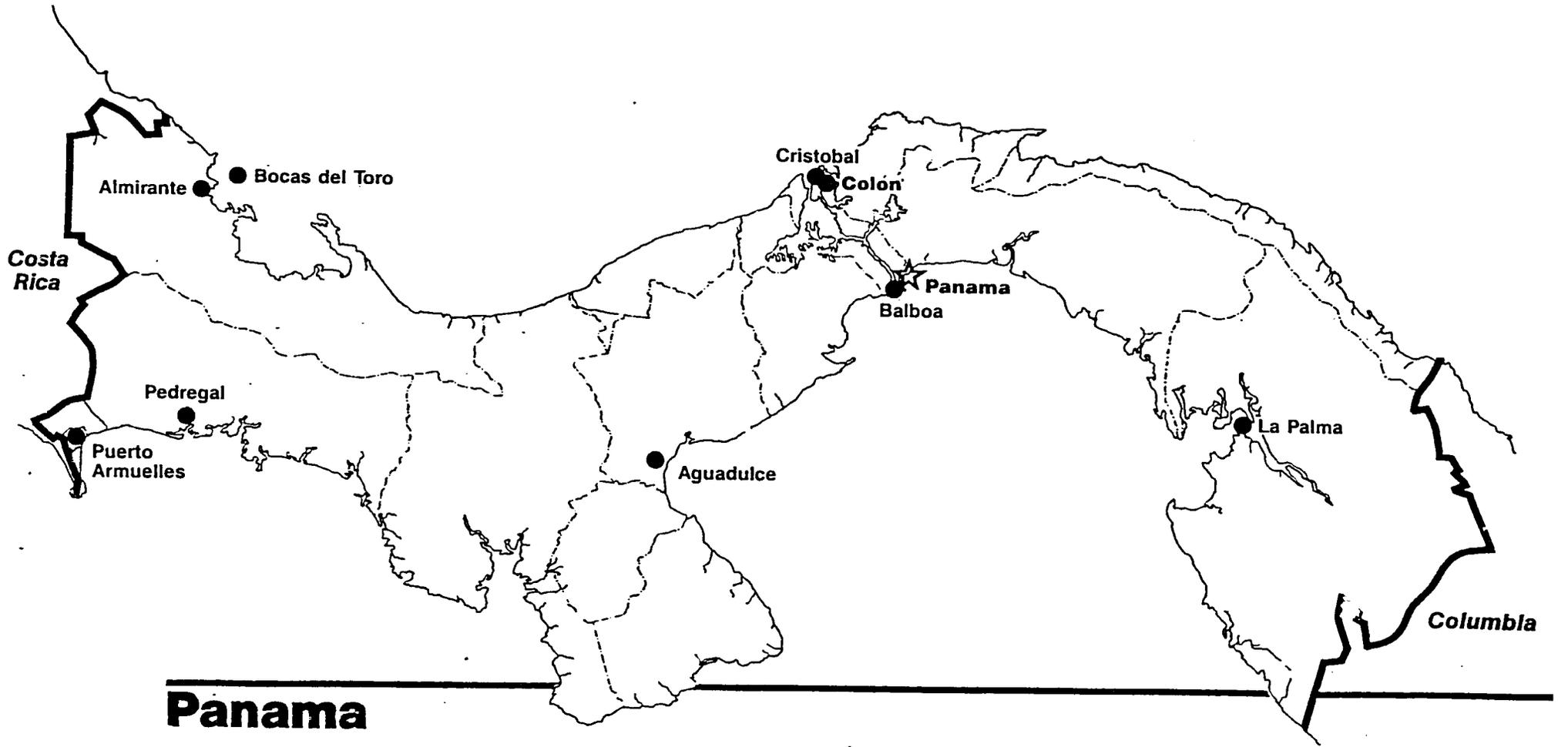
### The Panama Canal

Background and Current Operations. Panama, since 1914, has been a major node in the global maritime network. The 82 km-long Canal can shorten long-distance voyages by up to 8,000 nautical miles. It is traversable by all vessels except a few of the very largest passenger liners, some naval warships, and ultralarge tankers. This constraint--as well as steady increases in volume with resultant and occasional delays--has kept alive the discussion of a second crossing of the Isthmus.

The facility was built by the United States, following the Hay-Bunau-Varilla Treaty of 1903, and was until recent years owned and operated by the Panama Canal Company (an agency of the United States). The Canal Zone, extending five miles on either side of the Canal, was a separate jurisdiction with its own civil government until 1979 when, following the agreements of the Torrijos-Carter Treaty, the Government of Panama (through the National Port Authority of Panama, the Autoridad Portuaria Nacional) took over full responsibility.

The Canal includes three pairs of locks (305 meters long, 33.5 meters wide, and 12.5 meters deep) that lift vessels 26 meters to the elevated section of Gatun Lake and the Gaillard Cut through the continental divide. The water to operate the locks is supplied by local rivers. Vessels can transit the Canal from deep water to deep water in 7 to 8 hours, but normal waiting periods increase the total time for a typical transit to about 15 hours.

The tolls averaged \$6,850 per ship in 1970 and amounted to over \$100,000,000. They are set to cover all maintenance and operational costs. Vessels owned, operated, or chartered by the government of Panama were exempt from these tolls when the facility was operated by the United States.



**Panama**  
**Ports**

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The current (end of 1986) Canal throughput capability is about 46 ships per day; the full capacity of 92 to 95 ships per day is expected to be reached within a year. Most of the vessels moving through carry bulk cargo, and only 10 to 20 percent of the volume is containers.

Significance of the Canal for Non-Traditional Exports. The existence of the Panama Canal has only a marginal significance for the export of non-traditional goods from the country, since the facility operates at a very much different level and scale. However, it is undeniable that it does provide flexibility in reaching directly one ocean or the other and the market areas associated with them, and that it and the businesses tied to it represent most important infrastructure elements that could be tapped for the development of more localized trade.

### Marine Fleet

It is of some significance to record that Panama is one of the principal countries offering "flag of convenience" marine vessel registration. This almost entirely foreign-owned fleet does not expedite in any significant or direct way the trade linkages of the country itself, but the practice continues to be most popular in the global maritime industry. In 1980, 10,090 vessels were so registered in Panama (with a total tonnage of 26,300,000), while by 1984 this fleet had grown to 11,986 vessels (46,900,000 tons).

The much smaller vessels registered in the Republic for interior trade increased in number during the same period (700 to 744), but with a net decrease in aggregate tonnage (45,000 to 43,100 tons).

## Ports

Distribution of Ports. As is the case with most countries in Central and South America, particularly related to those settlements that were established in the colonial era, Panama has a number of small ports and harbors along the long coastlines of the two oceans. There are many more of them on the Pacific side than along the sparsely inhabited Caribbean (Atlantic) shore.

Almost all of these ports have a purely local role, serving as fishing harbors and providing some means of marine linkage. Many excellent, sheltered harbors can be found, but the facilities and equipment are inadequate, even though (at least historically) these ports were the only practical means to transport agricultural products from several sections of the country.

The two exceptions are the port facilities at either end of the Canal, which are discussed in some detail below.

External Trade. As shown on Table 4.4 (which does not include several proprietary petroleum and cement terminals), the Ports of Balboa and Cristobal dominate external trade in terms of vessel movements, and, since Muelle No. 3 is a part of this complex, there is no other facility even near that volume. In terms of tonnage handled, on the other hand, the Ports of Almirante and Armuelles in the western part of the country (specializing in a single commodity) match or exceed Balboa and Cristobal.

Coastal Commerce. In the sector of coastal commerce, the Port of Vacamonte stands out in terms of vessel movements (a large fishing fleet), while the largest tonnage is accommodated by the Muelle Fiscal in Panama City.

**Table 4.4**  
**Maritime Commerce Through Ports of Panama**  
**(1984)**

Port	<u>External Commerce</u>		<u>Coastal Commerce</u>	
	Number of Vessels	Amount of Cargo (in metric tons)	Number of Vessels	Amount of Cargo (in metric tons)
Aguadulce	56	125,950	10	12,191
Almirante	184	479,659	121	---
Armuelles	179	411,862	--	---
Bahía de Las Minas	155	137,194	--	---
Balboa	1,396	404,268	--	2,435
Bocas del Toro	24	280	145	14,378
Cristobal	1,061	416,021	--	---
La Palma	--	---	450	8,372
Muelle Fiscal Panama	62	1,061	863	29,036
Muelle No. 3	357	13,871	13	---
Pedrigal	24	52,038	18	426
Vacamonte	<u>103</u>	<u>28,307</u>	<u>4,434</u>	<u>6,369</u>
<b>Total</b>	<b>4,404</b>	<b>2,080,938</b>	<b>6,372</b>	<b>73,207</b>

Source: Panama en Cifras, Anos 1980-1984, Contraloria General de la Republica, Marzo 1986.

**The Port of Balboa.** This facility has a long history of active operations, being one of the principal marine terminals of Panama, at the Pacific end of the Canal and the nearest to Panama City. The Port of Balboa was originally administered by United States officials, but it is now the responsibility of the National Port Authority (Autoridad Portuaria Nacional).

There is an anchorage in the roadstead outside the Canal entrance, and the channel to the port is 14 meters deep. The limiting water depth at the berths is 12 meters.

The port of Balboa comprises essentially one piled concrete and steel pier, 305 meters long by 61 meters wide, extensively covered by one transit shed, leaving a narrow apron on each side from which to work the berths. The port also operates a 954 meter length of berth constructed alongside the ship repair facility, Astilleros de Balboa. This latter berth is provided with a Paceco Portainer crane with a capacity of 65,000 lbs belonging to a major shipping line. Attempts are made to store containers in this area, but space is extremely limited, and so use is made of yard space away from the port area.

The port complex includes three nearby oil berths. Grain handling is possible through portable vacuators, though without bulk storage. A ferry operates out of the port. Rail access is provided.

Operational space within the port area is extremely restricted, there being barely enough room on the apron in front of the transit shed to handle a container. Space for operating and handling containers around the container crane is likewise extremely limited. Few facilities are available in the port area for work on cargo-handling equipment, though workshops operated by ministries, the railroad and the shipyard are all located nearby.

The Port of Cristobal (Colón). This port is the counterpart of Balboa on the Atlantic end of the Canal. The history and administration of both facilities are similar.

The principal facilities consist of three large concrete and steel covered piers, of similar design to the one at Balboa, and a separate container berth with a combined berthing length of 776 meters. The water depth is 12 meters. Separate facilities exist for the handling of explosives, and four oil berths are available to tankers. A small ship repair installation is also present.

As with Balboa, space for cargo operations on the aprons in front of the three large transit sheds is extremely limited, there being no room for yard tractors carrying containers to pass. There is rail access to the piers, though only one (number 8) has active rail access to inside the transit shed. A separate entrance is available for containers.

The container facility includes a 40 ton portal crane and yard space for storing an estimated 1500 containers. Electrical outlets were available for up to 32 refrigerated containers. Movement of containers is by yard tractors and trailers, two front loaders and a small number of 30 ton truck-mounted cranes. A quantity of fork lift trucks and smaller cranes is available for the movement of cargo within the transit sheds.

Within the port area there is a container freight station, a mechanical workshop, a carpentry shop, a quarantine building, securing buildings, and stevedoring facilities.

Aguadulce. Aguadulce is located in the Province of Cocre, 4 miles from the open sea, and the channel (Palo Blanco) requires significant dredging to maintain marine traffic. The principal commodities are sugar and molasses moving in export trade. Fertilizer and chemical products are handled as well. New shoreside facilities are being planned.

Almirante. Almirante, at the extreme northwest end of the country, serves almost entirely for the export of bananas and other food products. The two main quays (about 104 meters long), as well as other installations, are operated under a concession by United Brands.

**Armuelles.** Armuelles, near Costa Rica on the Pacific side, is also a banana port. The administrative agency is the National Port Authority, but operations are managed by the Chiriqui Land Company under a concession. There are problems with water depth, and a single 457 meter wharf is in use. A new grain handling facility is planned nearby.

(A few kilometers from Armuelles on the Bahia de Charco Azul is found the Petroterminal of Panama. It is privately owned, used only for the import of crude oil via three berths.)

**Bahia de Las Minas.** Bahia de Las Minas, 11 km east of Cristobal, and next to Coco Solo, is a fuel loading and unloading facility operated by the Refinery of Panama. The refinery, at the time of its construction, was given the authority to operate its own facility independently of the National Port Authority. Only the charges for using the port were set by the ENP.

The port offers general cargo facilities and can take ro-ro ships. The approach channel is 12 meters deep, while the dry cargo dock can accommodate vessels with a draft up to 8 meters.

The port is popular with those lines that are able to use it because of the refinery's reputation for operating it in an efficient manner and because of the more favorable labor rules.

**Coco Solo Norte.** Coco Solo Norte, near Colón City, is the hub of the coastal maritime trade along the entire Atlantic seashore. Further expansion and facility upgrading is planned by a multinational consortium.

**Pedrigal.** Pedrigal, in the western part of the country (Pacific side), has a single quay utilized for the movement of fertilizer, fish, and general cargo. The port is equipped for and occasionally handles international vessels. Piloting, anchorage, and stevedoring are available.

**Vacamonte.** Vacamonte, 27 km west of Panama City, is the principal fishing harbor of the country. Tuna and shrimp are the main catches, and the movement of fishing boats is very active. Five quays are in operation, and the harbor is protected by a long breakwater. Boat repair and maintenance facilities are available; a processing plant and a 3,000-ton cold storage building are in operation; and a general cargo wharf and a fish market are components of the entire complex. The harbor depth ranges from 10 to 4 meters.

## **Container Operations**

**Container Activities and Costs.** Container facilities exist at Balboa, Cristobal, and Bahia las Minas. There has been almost no growth in the volume between 1980 (87,414 containers moved) and 1984 (89,051 containers moved).

The breakdown in container activity in 1984 is shown in Tables 4.5 and 4.6 for the three facilities:

**Table 4.5**  
**Panama**  
**Container Activity - 1984**

	<u>Full</u>		<u>Empty</u>		<u>Total</u>
	<u>20 ft.</u>	<u>40 ft.</u>	<u>20 ft.</u>	<u>40 ft.</u>	
Unloaded from Vessels	21,446	22,032	734	185	44,397
Loaded on Vessels	5,655	5,514	16,648	16,837	44,654
<b>Total</b>	<b>27,101</b>	<b>27,546</b>	<b>17,382</b>	<b>17,822</b>	<b>89,051</b>

Source: Autoridad Portuaria Nacional

**Table 4.6**  
**Panama**  
**Container Statistics**  
**1984**

	<u>Number Unloaded</u>	<u>Number Loaded</u>	<u>Total</u>	<u>% Age</u>
Number Full	43,473	11,169	54,647	61
Number Empty	919	33,485	34,404	39
<b>TOTAL</b>	<b>44,397</b>	<b>44,654</b>	<b>89,051</b>	<b>100</b>
% Age	50	50	100	

Source: Autoridad Portuaria Nacional

The statistics highlight the fact that the movement of goods by containers is highly unbalanced: a great number of full containers arrive and many empties leave. Of the total number of containers handled about 40% were empty. It is an acceptable part of the container system to carry a certain number of empty containers, but the acceptable proportion is about 25% of the total. In the case of Panama about 16,000 empty containers are handled over and above the 18,200 that would normally be considered acceptable. At the very least, these surplus containers are costing the nation of the order of \$16 million in handling and transportation, or about 6% of the f.o.b. value of all exports, or about 12% of the f.o.b. value of non-traditional exports.

**Table 4.7**  
**Panama**  
**Container Costs (Door to Door)**

<u>Container Size</u>	<u>Contents</u>	<u>To</u>	<u>Cost</u>
20 ft.	General	Miami	\$1,700
40 ft.	General	Miami	\$2,400
	Frozen	"	\$3,000
	Shrimp	"	\$6,000
	Melons	"	\$3,700
	Concentrates	"	\$2,857

Table 4.7 shows a range of costs for moving containers from Panama City to the port at Miami. Rates varied according to the shipping line, so the figures should only be taken as a guide.

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Container Operations at Cristobal. Currently, the principal attention in the development of container handling capability is centered on the Atlantic Port of Cristobal. A new area of about 8 hectares near the general cargo port has been developed. It includes a dedicated berth, a portal crane, warehousing, and other facilities.

Interviews with operators of the container facilities and shippers reveal a number of difficulties. A fundamental and predictable problem has been the need to convert rather rapidly from a break bulk system dominant in the ports of Panama until recently to a container operation. These efforts started only in 1979, and since that time the cargo volume moving by containers increased from 15 percent to 75 percent of the total. The ports were simply not ready for this change, and the conversion process encountered delays in obtaining funds, building facilities, and securing the necessary equipment. The portal crane for example, was placed in operation two years later than when it was first needed.

Other problems have followed. The Authority increased tariffs substantially for the handling of containers to recover the costs of the sudden expansion as well as to fund future needs. This has created considerable unhappiness among the shippers and the users of the service, particularly since the operations are still not completely efficient.

The container operations at Cristobal showed considerable signs of severe strain at the time of the study. To start with, the paved area behind the new portal crane had been demolished some months previously with a view to reconstruction for increased loading. Work, however, had stopped after the demolition phase, thus curtailing the use of the crane for an extended period.

Containers were thus being offloaded at the other piers, were being handled in the cramped apron space alongside the berths, and were being transported the considerable distance to the container storage area.

Within the container yard itself considerable congestion had been taking place as a result of the sheer volume of containers. While the pavement in the yard had been marked in places for reference, it was noted that unmarked areas were also being used. In some instances the handling equipment experienced difficulties in gaining access to the containers because of the congestion. Damaged containers were also in evidence.

While the organization of the container yard documentation was according to basic but proven systems, the general opinion was that the process was slow, and that there were often discrepancies between recorded and actual container locations. Separation of inbound, outbound, full and empty containers within the yard was not consistent, and was reported as being a source of delay in container handling.

It is clear that considerable improvement is required in this activity if its cost is to be reduced to an acceptable level. Aside from operational reforms required to speed the physical movement of containers around the port so that they can be loaded and offloaded with the least delay, it is evident that the available storage space is not sufficient and requires supplementing. The present practice of storing containers in any spare space around the port exacerbates an already critical space shortage and serves to distribute throughout the port that equipment that needs to be centrally located for optimum efficiency.

## Problems and Future Plans for Ports

Current Port System. There is little doubt that the service offered by Panamanian ports contributes to the relatively high cost of exporting from the country. It is ironic that such an essentially maritime nation should find itself in the situation where, given its wealth of knowledge on the subject, it should be criticized for failing to provide an acceptable port service.

The causes for the situation are complex, and result in part from facilities that were inherited from the USA with a minimum of genuine planning and cooperation. An additional cause has resulted from the essentially political nature of so many of the transport institutions in Panama, with administrators coming and going with each change in the political climate. At the operations level, the strength of organized labor in the country--especially within the port stevedoring--taken together with its typically adversary relationship with port management and the national administration, has resulted in a situation where beneficial change has been hard to implement. Not only that, but it has been difficult on occasion to defeat the introduction of changes that have been positively harmful.

Panama is not the only country where such conditions prevail, and it is far from being the only such country in Central America. Experience has shown that such problems that exist are not insurmountable, but that nothing can be achieved without supplying the correct tools for the job.

A standard criticism is that port equipment has a poor record of operational effectiveness. It has been stated that equipment left by the USA was either totally run down, or that it was old but had been maintained to keep it operating. A review of the ports' mechanical and electrical workshops showed that neither view was relevant: there is just not the equipment available at any of the Port Authority's workshops to keep the existing mechanical and electrical equipment operational. Basic tools to do this job just are not available. The workshops were literally full of equipment (30 to 40 fork lift trucks, etc.) which were being worked on, but which could only be used as sources of spare parts for other similar equipment. Since there was no consistency in brand of equipment, such salvaged spares were of little genuine value.

It is a fact of life that the ports of Central America do not budget for inventories of spare parts for equipment. Where funds are hard to come by it is preferable to spend what little there is on immediate needs rather than eventualities. In countries where labor is relatively cheap it also makes sense to repair broken equipment by making replacement parts in-house where this is possible. The current situation precludes both maintaining a spare parts inventory and manufacturing own parts. The situation regarding equipment will persist at least until port workshops have the requisite tools for the work in hand.

Even with more adequately equipped workshops, it will take a thorough program of training to enable the mechanics to use the new equipment with intelligence and economy.

The National Port Authority is a relatively young organization that took over many responsibilities from USA managers of ports. Many shippers and other users of the port facilities insist that things worked better prior to 1979. This is ascribed to closer supervision, greater attention to maintenance, and effective use of non-union labor. At the present, it is said, productivity has been lowered due to excessively bureaucratic approaches, the dominance of labor unions, and chronic shortages of equipment and supplies.

It is to be expected that most of these problems will be transitory as the agency streamlines its operations. It is a fact that the transfer of responsibility from North American to Panamanian managers encountered various snags, and a number of elements had to be restructured entirely during the process. The Authority is embarking now on various plans to upgrade the maritime system of Panama. As has been mentioned previously, many of the existing ports are slated to receive new investments in the physical plant and facilities.

Containerization. The relative backwardness of Panamanian ports in handling containers is ascribed to the political events during the last several decades. Ports of the international maritime network around the world invested in and expanded rapidly this emerging cargo mode in the early 1970s. The ports of Cristobal and Balboa had no such programs because they were then under the US Panama Canal administration which was about to depart the scene. Various half-hearted measures were attempted and some private actions taken, but the results were minimal.

After 1979, when the National Port Authority assumed responsibility, vigorous programs were not implemented either, and no significant response was made to private industry requests and suggestions on how to catch up in this field. Gradually, since it was inescapable, facilities were developed in Panama, but they always lagged behind the contemporary norms and the nearby competing ports (Kingston, San Juan, Miami). Furthermore, the financing programs of the new facilities and equipment resulted in revenue demands and charge levels that are above those in other comparable ports of the Caribbean/Central America basin.

The Centro Puerto Concept. Among the more advanced ideas is the creation of a "Centro Puerto" that would basically be an integrated distribution system, focusing on the two major ports but operating them as a coordinated unit under single management. A worldwide system of linkages to various market areas would be established and nurtured. Particular attention would be paid to connections reaching Latin America, the Middle East, and Africa, as sectors with great potential for further trade development. Vessels with cargo (particularly containers) destined for various market areas would unload most or all of their freight at either Balboa or Cristobal, and the goods would be transferred to ships that sail to the final destination. These partial loads would be moved to the appropriate docks at either port by truck or rail, thus precluding the need for many vessels to traverse the Canal. Clearly, for the system to work and be attractive to shippers, the linkages would have to be accomplished with the least amount of friction and delay.

This concept still needs much work to achieve practical implementation, but it does exemplify a desire and a positive intent to expand the market reach of Panama, reflecting its strategic location on the Canal.

Studies in Progress. At the time of this study a number of other studies of the Panamanian transportation system were in progress or were about to be started. These included:

1. A feasibility study financed by the Inter-American Development Bank for expansion of the ports of Balboa and Cristobal. Financing of about \$30 million is being sought to implement the recommendations. This included an analysis of the Centro Puerto.
2. Implementation of a \$45 million upgrade of the 75 km rail link between Balboa and Cristobal.
3. In-house feasibility studies by the Ministerio de Planificacion y Politica Economica for the execution of about \$100 million of proposed infrastructure projects in the Canal Zone area. While much of the work will not take place until the year 2000, work will get under way soon on those areas that have already been handed over to the government of Panama.
4. A 4-year study of 10 alternative proposals for expanding the Panama Canal to handle ships as large as 250,000 dwt.
5. A study and production of plans for an estimated \$20 million rehabilitation of the 80 km highway between Colon and Panama City.

It is clear that much of the preliminary work required for a major overhaul of the port system is being completed and that one can anticipate rapid and far-reaching improvements in the near future.

## AIR TRANSPORTATION

The airport system of Panama is not very extensive, although it is reported that in the early 1970s there were 140 domestic airports. The principal international facility is Omar Torrijos Herera near Panama City (16 miles to the east). The other airports have a local service role and include those found at Colón, David, Changuinola, Bocas del Toro, and on the Pearl Islands.

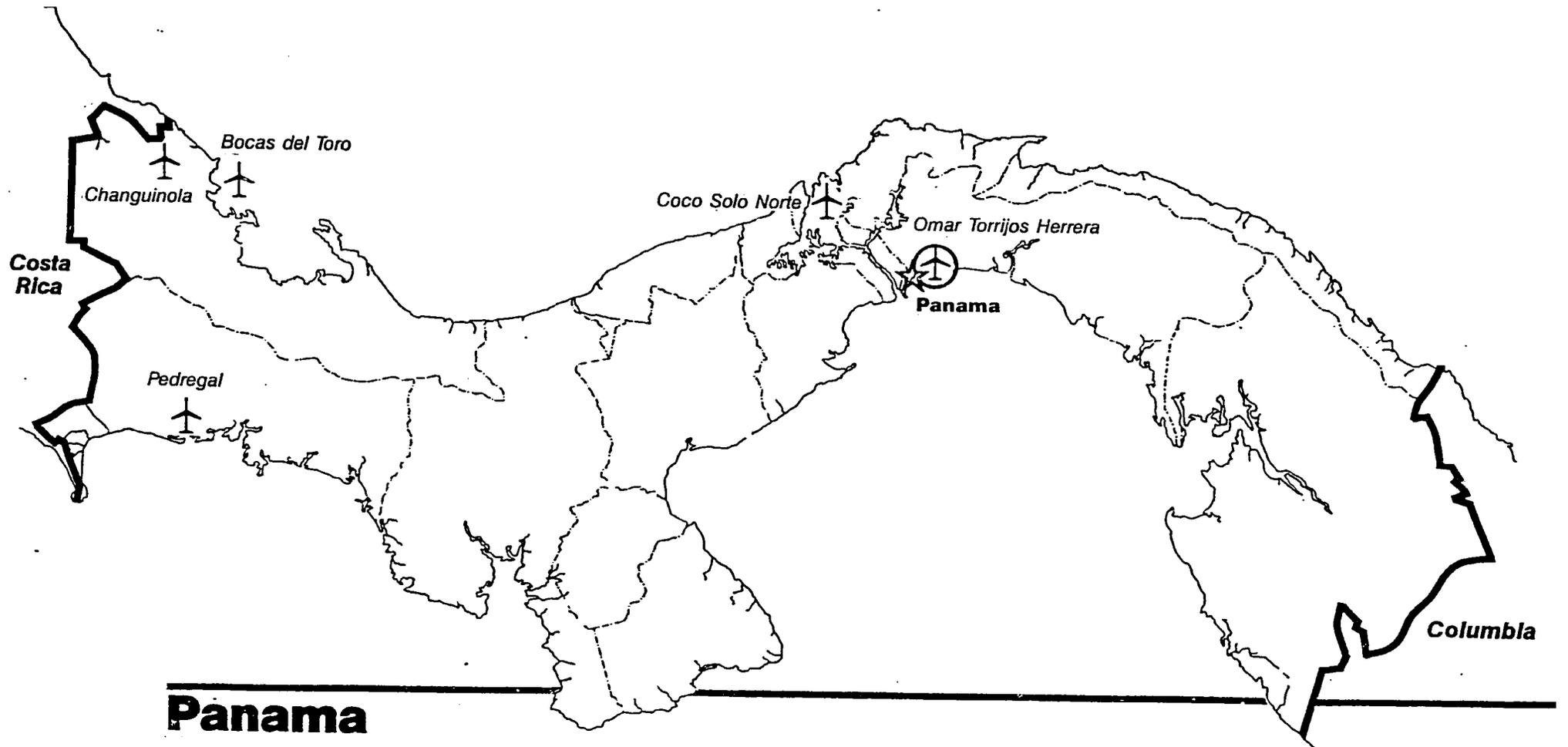
The airports at Panama City are in fact a group of airports, including a passenger airport, a military airport and a freight airport. The freight airport is, in fact, the old passenger terminal.

Within the freight terminal a number of air freight carriers have been authorized to operate international services. Space is leased for this activity from the Civil Aviation Authority, but all other facilities are provided by the operators themselves. These include loading equipment, trailers, containers, tractors, ramps, and refrigerated storage. Three small refrigerated storage units are available at Panama's air freight terminal. Storage space, both enclosed, covered and open is available, with the facility operated by Eastern for itself and others being the greatest in extent.

Air freight charges for general merchandise from Panama to Miami are in the range \$0.70 to \$0.80 per pound, or about \$1.65 per kilo. These rates compare with about \$0.65 per pound from San Jose, \$0.55 from Tegucigalpa, and \$0.60 from Guatemala City.

### Decrease in Air Traffic

There has been a measurable decrease in air traffic of various types through the international airport of Panama in recent years (see Table 4.8).



## Panama

### Airports & Landing Strips



Major International Airports



Other Airports & Landing Strips

**Table 4.8**  
**Air Traffic of Panama International Airport**

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
Commercial Flights	21,959	21,406	18,342	17,120	16,835
Passengers (in '000s)	1,183	1,185	1,132	1,040	1,135
Cargo Loaded (in metric tons)	37,500	38,900	37,200	28,000	26,300
Cargo Unloaded (in metric tons)	14,200	14,400	14,000	12,900	15,800

Source: Direccion de Estadistica y Censo

International Passenger Traffic. In this 5-year period, passengers coming from or going to North America have continued to increase at a modest rate (404,600 to 438,100), while those associated with South America have decreased in volume (517,500 to 394,200).

International Air Cargo Traffic. In the air cargo sector between 1980 and 1984, the total tonnage moving to and from North America has decreased somewhat (11,498 to 9,822), but the trade to South America has dropped to less than a half of what it was earlier (25,100 to 12,900 tons), while the air cargo unloaded from South America has grown significantly (3,800 to 5,500 tons) from a small base.

Internal Air Traffic. Internal air operations in Panama experienced downward trends as well during this period. Passenger volumes dropped slightly, but the already small air cargo tonnage (2,000 tons in 1980) was cut almost in half (1,200 tons in 1984).

## The Views of Air Freight Carriers and Shippers

To provide reliable insights in the existing air transport business, beyond the overall statistics, interviews of operators and field inspections were undertaken as a part of this project.

Air Panama. Air Panama--one of the principal carriers--moves much of its freight volume as mixed cargo on regular passenger flights. The principal destination point is Miami, and the cargo is primarily dry, fresh, or frozen food products (shrimp, lobster, and melons in November). South America receives finished merchandise sent largely from the Colón Free Zone.

A cargo flight is operated every Thursday to Miami as well, utilizing a leased 707 aircraft. It carries outward the same food products, and returns almost always full with consumer products and materials. Panamanian exporters are asked to program their shipments on the preceeding Monday for a Thursday flight, or they are likely to lose reserved space. In case there are delays in Thursday departures, three refrigerated warehouses in the cargo area of the airport are expected to provide storage.

Air Panama is seriously considering expansion of its services by acquiring additional aircraft (a convertible 707-100 for either passengers or cargo, or an Airbus with mixed cargo capability). It is not intended, however, to institute additional routes, only to strengthen present service.

KLM. Information obtained from KLM confirmed the general description of the Panama air cargo situation and existing patterns. This company is most eager to expand freight operations, but appears to encounter local obstacles, indifference, or lack of initiative. For example, KLM organized a seminar in 1985 on export potentials and market availability for Panamanian products in Europe, but no particular results have ensued from this effort.

This company operates a DC 10 with wide cargo doors on a regular schedule carrying passengers and freight. On Mondays the flight from Panama goes to Curaçao and Amsterdam; on Wednesdays to Quito and Lima; on Saturdays to Curaçao, Caracas, and Amsterdam. Cargo is carried in containers, pallets, or boxes; it consists primarily of pharmaceuticals, vegetables, and fruit moving to Europe; apparel to Curaçao; and electronic items to Caracas from the Colón Free Zone.

The volume of air cargo has been growing slowly for KLM recently, and in 1987 another flight will be added. It is interesting that all the freight not destined for South America moves to Amsterdam, which is the principal distribution center for KLM. From there, it is not only trucked or flown to other parts of Europe, but also to Canada. Panamanian exporters (of pharmaceuticals and beef serums, for example) find such roundabout service to Toronto to be more reliable and faster--even though more expensive--than other options.

KLM cargo operations are managed entirely through a central computer system that can provide information instantly on the location and progress of any shipment. This company also points to its far-flung, integrated service network and its ability to reach many destinations, including a penetration into Africa. The charges (door-to-door) from Panama to Amsterdam are:

- for more than 500 kilos of normal cargo: \$4.44/kilo
- for a container of 1,588 kilos: \$3.33/kilo
- for pallets of 3,165 kilos: \$2.33/kilo

There have been some indications that the Panama-based air cargo business may be expanding lately or that there is a potential to do so--both in variety of goods and geographic reach. Hot peppers and melons, for example, have started to move to London. Shipment of beef to Egypt has been explored and may become established as a regular trade; crude leather has been flown to West Germany.

According to KLM representatives, the entire support base for air cargo movement (regulations, procedures for handling paperwork, trucking access, insurance, settlement of invoices, etc.) is in place and operating well. The major problem constraining this business and hampering the establishment of reliable and growing operations is the lack of continuity caused by the capricious behavior of exporters. They appear to promise a steady supply of products (mangoes, for example) to European distributors, but then interrupt the flow of goods because some other temporary opportunity emerges, or because changes in regulations discourage export activity.

Others. The above review has reflected primarily the perspective of two major air service providers. There are others in this business (Varig, Equatoriana, Lanchile, Aeromexico, Cubana, Dominicana, Pan Am, Eastern), and there are other opinions about the reliability and quality of these operations.

The Complaints of Shippers. Some shippers regard the current air freight charges as very high, at least in relation to the value of the goods that are or could be exported from Panama. Many complaints are generated when cargo moves in the bellies of passenger aircraft. Since these are not priority operations for the airlines, schedules are frequently not met, and the total reliability of this service mode suffers. Air Panama is accused of trying to monopolize the business.

**Conclusion: Air Transportation in Transition**

The overall conclusion regarding the air cargo sector seems to be that this industry in Panama is currently in a transition stage. Most of the necessary elements exist; the carriers would not only be happy to expand operations, they are in a reasonably good position to do so. In the meantime, however, since there is no organized and consistent demand for service upgrading, problems continue to exist, and no major steps are being taken to correct present deficiencies.

The managerial infrastructure on the carriers' side is certainly in place, and they appear to be anxious to develop new market destinations in North America besides Miami (and perhaps New York and Los Angeles). Since Panama has been a very heavy importer of merchandise, the reverse movement (i.e., outbound) has not yet received full attention, and the export patterns are still very simple (agricultural or marine products to North America and goods from the Colon Free Zone to South America). Above all, the businessmen of Panama need to request and utilize air cargo service and maintain a disciplined attitude in this sector, which could lead to a more responsive attitude on the part of the carriers.

## TRANSPORT-RELATED CONSTRAINTS

### The Road System

No obvious major requirements for extensions (i.e., the construction of new segments) to the national highway network were identified. There are areas that have not yet been adequately penetrated, but those sections have no large and immediate development potential as regards non-traditional exports.

There are several instances where significant upgrading efforts along existing corridors and alignments are needed. The first of these is the Trans-Isthmian Highway between Panama City and Colón, the most important road link in Panama. Undoubtedly it will have to be widened, modernized, and transformed into a limited-access artery. The question is the timing of such efforts and the schedule of demand. It has been suggested by some that implementation of a six-lane, grade-separated, median-divided facility be started now. Such level of effort is most likely not justifiable immediately, even though it will be certainly needed eventually. It is clear that the constrained two lanes which characterize most of the alignment are a significant negative feature, and affect the efficiency of communications in the country. The appropriate program, therefore, would appear to be full planning and engineering feasibility analyses, with preliminary design, that would serve to reserve the space for a "complete" artery and to correct not only obvious bottlenecks and unsafe features, but also to substantially upgrade throughput capability along the entire roadway. Climbing lanes, bus turn-outs, turning lanes, adequate shoulders, strategic traffic signals, and protective devices in built-up areas are urgently needed.

A phased, dynamic program is indicated. Only thus could the Centro Puerto concept be made workable and the internal freight distribution activity between the two nodes achieve an effective level.

The National Highway (Route #1) running the length of Panama requires upgrading as well. The most urgent need is for well-managed, continuous, and persistent maintenance programs to keep the artery in uninterrupted and efficient use. The local topographic and drainage conditions make this a rather significant effort, requiring a sizable annual commitment of resources.

The full opening of this roadway to South America (i.e., the border of Colombia) as a viable segment of the Pan American Highway would not only be a symbolic gesture but should also have a significant generating effect on the development of overland, truck-based trade at the intercontinental level. The recent successful efforts to link Europe to Asia and Africa can be cited as examples, but this possible project in Panama will require, again, full feasibility and cost-effectiveness analyses.

For the other roads of Panama, that is, the secondary branches and rural roads, a permanent and positive maintenance program is necessary to keep all the vital road links open at all times and to expedite the movement of persons and material between the various centers. In the context of this study, products from the several growing and processing areas have to move with the least amount of effort to the points of assembly and transshipment.

## The Railroad of Panama

The line between Panama City and Colón, historically associated with the Panama Canal, is currently in poor and unacceptable condition. The track, the rolling stock, and various fixed elements have deteriorated significantly. The operations do not appear to be managed with sufficient effectiveness, and freight moves slowly and unreliably. The real question exists whether massive resources should be invested to upgrade the facility to full operational quality, or whether to abandon it entirely. A middle road also exists, centered on upgraded maintenance programs that would gradually restore a reasonable level of transport capability. Proponents of any one of these courses of action are quite vocal, even though a comprehensive and balanced analysis of the alternatives has not yet been done. Thus, there is a clear need for such an objective and professional review; a decision is needed to move off dead-center and thereby give a positive boost toward an effective national transport system.

The possible closing of the service would appear to be a precipitous strategy that would cause much disruption to established operational and business patterns. It should not be attempted unless the Panama City/Colón highway link is substantially upgraded.

Given the general global trends toward trucking in freight movement, the complete rebuilding of the railroad to modern standards, on the other hand, would be justifiable probably only in conjunction with the Centro Puerto proposal. In such a case the rail line would have to operate, in effect, almost as a continuous conveyor between the two nodes. This system would be designed principally to expedite international trade, but clearly any exports from the country could benefit as well.

If the Centro Puerto is implemented, the rail capability could also be expanded to include attractive (quick, reliable, comfortable, and cheap) passenger service, particularly if goods movements are concentrated during night hours.

### Air Service

The various air carriers who have a base already in Panama are eager to expand their cargo operations. They are also able to do that rather easily because in most cases it is simply a matter of reassigning equipment and personnel to service a viable market. This includes Air Panama, KLM, Varig, and a number of others.

It is quite clear that if exporters with sufficient volume would ask for such service, make appropriate arrangements, honor their commitments on a permanent basis, and keep the tonnage at a reasonably steady and predictable level, the carriers could respond adequately. Whatever additional support facilities might be needed at the airport end could be introduced with little difficulty.

There is also the other dimension of expanding the market reach, beyond the few currently dominant destination points. Since many of the carriers have established networks connecting to a number of centers on various continents, it should not be any particular problem to physically link into those markets--provided that the necessary administrative and business arrangements are accomplished by the prospective exporters.

A number of current operational snags in the air freight sector have been identified as well: delays in placing cargo aboard, lack of suitable storage space, etc. Most of these appear to be largely caused by the relatively low importance perceived as characteristic of this activity.

### Trucking Activity

The trucking industry of Panama is currently in a relative state of disorganization--as far as costs, tariffs, responsibilities, and competition are concerned. The two large companies are experiencing financial difficulties, and the numerous small ones lead a precarious existence as business enterprises. The charges are reported to be high, even though under an uncontrolled competitive situation different options exist and various arrangements can be made. Protectionistic regulations and high import duties on vehicles and parts contribute to these conditions.

On the other hand, a service is in operation (thus a base has been established), and it is the nature of the trucking industry to be responsive, with great flexibility regarding business opportunities. It is, of course, also possible for individual shippers to operate their own vehicles.

Thus, it has to be concluded, that regardless of a number of existing snags and current dislocations, the trucking industry cannot be regarded as an obstacle to expanded export trade. It can be readily structured--redeveloped if necessary--to move local goods to terminals with efficiency and reliability.

## Marine Operations

Panama is without doubt a hub in the international trade network, and has been regarded for some time as a prime maritime country. Almost all of this relates to the Panama Canal and the vessel registry practices. Ironically, the shore facilities that would allow local exporters and importers to connect with the larger system efficiently are not up to the same standards.

Some of these difficulties, again, are traceable to administrative capabilities and bureaucratic procedures, but many are physical and operational in nature.

There is an urgent need to provide more equipment for container handling. Furthermore, this inventory has to be upgraded by emphasizing heavier and more modern units; the number of models and makes have to be reduced. Maintenance practices and the supply of spare parts have to be upgraded substantially and extensively. The leasing of equipment should be seriously considered in place of outright purchase.

The piers and docks are in an acceptable condition, but adequate provisions for container operations have not yet been made. Space is very constrained because the yards have been located and enlarged in areas that are already basically built-up; the internal arrangement of the yards can be materially improved, the circulation patterns should be streamlined, and the pavements should be kept in better repair.

## Responsibilities of the Exporters

Since reliable mechanisms for quality control are missing at the production end of export operations, as well as along the domestic trade routes, Panamanian products cannot expect yet to gain completely favorable reception at the various international markets. There is also the significant constraint that almost no active promotion and market development is done toward the outside. Both of these elements go hand-in-hand, and a positive, vigorous program under a country-wide organization is indicated.

The attention is still concentrated toward the United States, and at only a few places there at that (Miami primarily). The North American market could be broadened greatly, and the South American market is largely unexplored vis-a-vis many commodities that Panama could produce.

Any potential exporter of non-traditional products from the Republic is currently facing a series of problems: these constraints do not involve so much physical and operational capabilities of the transportation system as institutional and managerial arrangements. During the interviews conducted by the study team, such observations were made repeatedly, and they are outlined below. At a fundamental level, most of these revolve around the fact that the businessmen and enterprises of the Republic have not yet fully achieved the level of maturity necessary for the structuring and conduct of operations that can enter directly into the global trade network. This will require a proper business climate, extensive cooperation among various enterprises, mutual trust and willingness to work together to develop markets and service systems, reliability and stability in trade flows, respect for commitments, and so on.

A part of this effort might have to be basic training programs of entrepreneurs such as discussions and lectures on how to handle business contacts, estimate markets, pack products, deal with carriers, etc. Attempts in this direction have not been particularly successful in the recent past, however.

### Responsibilities of the Government of Panama

The public agencies of any country are expected to provide the basic infrastructure in most sectors of social and economic activity, including facilities serving domestic and international trade. This includes in particular the national road system, the rail line, the marine ports, and the airport. In each of these areas specific departments, agencies, or authorities carry responsibility. Their duties in the physical and operational spheres are obvious: to keep the systems operable and usable.

There are also less tangible but even more important areas where the government has to assume an active leadership role. These include the generation of an overall climate within which public agencies (particularly authorities) act in a businesslike and constructive fashion and private entrepreneurs find it advantageous to cooperate for mutual benefit and engage in managerial practices that mesh with those prevailing in international trade generally. So far--at least as observed by some local businessmen--the government has not carried through with programs of this kind. General encouragement has been generated by public agencies to develop export activity, promises of incentives have been made, but no meaningful follow-up actions have resulted or the programs have not achieved original expectations.

There have been requests to reconsider or reform the CAT (Certificado de Abono Tributario) system. While this program has had a beneficial influence generally on the export of non-traditional goods, there are problems with paperwork and, since the incentives expire in 6 to 9 months, exporters who are not liable for any further taxes lose any advantages associated with the CAT credits. The spread of this program has to be expanded over a greater number of industries than is the case today.

There are also requests for the lowering of tariffs associated with the export of non-traditional products, but such actions would rest with the national Congress. An impartial analysis of this situation is required, so that proper regulatory actions can be taken that would lead to fair and stable conditions. There are claims that many hidden costs are included in the rates charged today.

Public agencies could also initiate and carry through marketing studies in an action-oriented way with the view of promoting Panamanian products. An example, showing that procedures can be improved, is the recent modification in the approval of export permits through the Instituto Panameño de Exportaciones cutting down the time period from 4-8 days to a few hours. Another useful agency is Instituto Panameno de Comercio Exterior, which promotes exports, explores markets, assists shippers, helps to organize exhibitions, etc.

### Responsibilities of Carriers

There is no shortage of transport companies serving Panama and linking it to other countries by air or water. The international carriers, indeed, would be most receptive toward any trade activity that would tend to balance the currently one-sided patterns. They consist primarily of imports of finished goods

from North America and materials and merchandise from the Far East, and exports from the Colón Free Zone primarily to South America. Non-traditional goods of Panamanian origin would very neatly provide a desirable northbound volume to these carriers, particularly if the commodities were not highly seasonal.

Generally speaking, while carriers are normally the "active" participants in any trade system, in the search of this study for weaknesses and corresponding positive corrective actions, they have a rather neutral position. They are there, and they can be expected to respond appropriately if the products are placed in motion, if the shippers act responsibly and predictably (with sufficient advance programming), and if the government provides the overall framework. The persistent demand among carriers is continuity in flow that would allow the establishment and maintenance of suitable facilities.

#### Responsibilities of Export Receivers

There have been many complaints that small Panamanian exporters have encountered not only unfair treatment but outright criminality at the market end. This has happened primarily in the United States and has led to considerable discouragement. Shippers have been cheated and revenues lost due to fraudulent claims that goods have arrived in damaged condition, excessively late, or have been lost entirely. This is reported to be a particular problem with shipments on consignment.

There is a clear need for protective and corrective measures to ensure an unhampered completion of trade links. U.S. authorities could assist in this area, and effective communications channels have to be established, particularly involving the smaller exporters.

## COMPARATIVE TRANSPORT COSTS

### The Regional Comparison

A pervasive view of most exporters of non-traditional products from Panama was that they were paying the highest transportation costs in the region. This charge was investigated, and resulted in the following analysis.

Table 4.9 indicates the comparative rates for a 20 ft container of dry cargo from the various ports of Central America to Miami, or an equivalent Gulf port. The table contains a number of assumptions, needed to make the figures comparable.

The basic figure is the door-to-US-port charge of major shipping lines operating within the country. This figure is the one-time charge levied by the shipping line for carriage from the producer's factory to the dockside in Miami. The charge includes land transport to the port, documentation charges, stevedoring charges, port charges, sea freight, and port and stevedoring charges in the USA. Estimates were made of the current cost of each of these activities in the chain, emphasizing the fact that these separate charges have to be met even if the same company handles the consignment from start to finish. Even shipping lines that operate their own trucking fleets have to pay market rates for trucking operations. Port charges and stevedoring are based on estimates of costs to the average vessel loading or unloading.

**Table 4.9**  
**Typical Costs of Moving a 20 ft Container**  
**US\$ Per Container**

<u>Country</u>		<u>Door to US Port</u>	<u>Trucking To Port</u>	<u>Port Charges</u>	<u>Sea Freight</u>	<u>US Port Charges</u>
GUA	A*	2,018	363	100	1,200	355
	P*	2,500	240	100	1,800	360(LA)**
C.R.	A*	1,475	300	550	325	355
PAN	A*	1,700	350	150	850	350
	P*	1,900	300	200	1,040	360
BEL	A*	1,790	40	300	1,100	350
HOND	A*	1,800	300	450	700	350
EL S	A***	2,150	500	100	1,200	350
	P*	2,330	60	100	1,800	360(LA)**

\* Atlantic or Pacific port.

\*\* Los Angeles

\*\*\* Routing through Santo Tomás de Castilla in Guatemala.

**Notes for Container Costs Table.**

1. Door-to-US-port charges were based on actual quoted rates for a 20 ft container of typical non-perishable product. Origin was taken as within a 40 km radius of the capital city, and destination was taken as the container yard of a typical US Gulf port (mostly Miami).

2. Trucking to port charges were based on quoted rates for collecting the full container and delivering it to storage at the Atlantic or the Pacific port.

3. Port charges were based on typical per-container costs levied by the port of the country for loading the container from storage to the vessel. Stevedoring charges are included, as are vessel charges. Fixed costs were allocated per container depending on typical volume loaded/offloaded.

4. Sea freight charges were determined to be the cost to the shipper of the purely maritime transport. The charge was arrived at in conjunction with estimates made by operators of the shipping companies.

5. US port charges were based on typical per container charges payable at the typical Gulf port. Fixed costs were distributed according to typical volume loaded/offloaded.

6. The purpose of the table is to enable a general comparison of the relative costs of exporting non-traditional products from each of the countries. All estimates are conservative: most exporters could obtain rates lower than these, but for the inexperienced low-volume exporter the figures are not unreasonable.

The calculation of typical costs for a typical container requires careful consideration: door-to-US-port charges, on the one hand, are directly comparable because they are well established for a particular commodity on a particular route; port charges, on the other hand, are a function of the vessel size, the number of containers handled, the equipment used, and so forth. The door-to-US-port charge was the same for 25 containers or 50 containers, as was the trucking charge, but the port charges--evenly distributed between the containers--were very different for 25 or 50 containers.

One approach was to standardize the calculation by assuming that the same size vessel and the same number of containers was used on each occasion. This concept, however, conflicted with the reality in each country: adopting 50 containers might be representative in one port, but it could be excessive at another. The system adopted was to report the costs that interviewees reported as being their average. These were cross-checked in each country, and the most consistent amount was reported in the table.

The table shows that exporters from Costa Rica had a basic cost advantage in exporting to the USA. Recent introduction of service by one of the world's major container companies, Evergreen, served to introduce increased competition, and so rates were reduced considerably. This company is discussing further plans with the port authorities at Limón in connection with construction of a major transshipment terminal.

Panama, Belize and Honduras were all charged approximately the same for the 20 ft container service shown. It was felt that the small differences shown in the table demonstrated no real advantage of one country over another in this group.

Guatemala and El Salvador have a rate that is somewhat--though not by much--greater than for Panama, Belize, and Honduras. The Atlantic rate for El Salvador is greater than that for Guatemala, as might be expected since the port used was Santo Tomás in Guatemala.

There was found to be an unexpected consistency in the costs involved in trucking the container to the nearest port-- unexpected because the distances involved were so different. In Guatemala, Costa Rica, Panama, and Honduras the rates were comparable, though Costa Rica and Honduras profited from being at the lower end of the range (\$300), and Guatemala and Panama had the disadvantage of being at the higher end (\$350-363). For the

exporters of El Salvador the trucking cost to Santo Tomas involves an additional \$140 over the exporter from Guatemala City. The lowest in the region was the cost to the exporter from Belize, since the capital is adjacent to the port.

Port charges varied considerably, from \$100 at Santo Tomás and Acajutla to more than \$500 for Limón and \$450 for Puerto Cortés. Given the caveats regarding these figures, it would be safe to conclude that Limón and Cortés are comparable in terms of charges. The ports of Panama and Belize fell between these two extremes.

The charges shown for sea freight were the most controversial for the group, since the different lines operated differently, and thus they considered that the costs were not comparable. The point was accepted. However, the figures were retained and serve to illustrate the approximate proportion of the door-to-door charge that is under the control of the shipping lines (i.e. ocean costs), and hence determine the range of reduction that negotiation at conferences could achieve. To insist on a 10% reduction in a door-to-door charge of \$2,000, for example, would signify a 20% reduction to a shipping line whose ocean costs were only \$1,000.

The range of the sea freight allocation varied considerably, from of the order of \$325 per container from Costa Rica to approximately \$1,200 from Guatemala. Given the probable accuracy of the survey, it was concluded that sea freight on a 20 foot container to Miami was about \$1,000, more or less depending on other factors. Clearly, one major factor that influenced the cost was the efficiency of the port, with exporters from Panama and Honduras benefiting from better-than-average efficiencies.

The sea freight from Costa Rica was distorted by the fact that the major shipping line consolidated in Jamaica before carrying to the USA. Had this not been the case, costs would have been more in line with those of the other ports.

The exporters from Guatemala suffered the expenses involved in loading a considerable number of containers each year (over 46,000 in 1985) without the appropriate equipment and facilities. While the charges levied by the port reflected the absence of such equipment, the cost of slowly offloading each ship using ship's equipment is reflected in the sea freight component of the costs.

#### Sensitivity of Price to Transportation Cost

Table 4.10 which demonstrates the relative sensitivities of different export products to the cost of transportation was prepared from information gathered relating to prices and quantities prevailing in 1985. The figures shown are typical ranges, and are presented to demonstrate overall comparisons. Individual exporters may pay more or less than the figures shown, depending on such variables as location of production area in the country, volume shipped, final destination, and so forth.

The typical unit prices for the products are given FOB the main Atlantic port, and include an allowance for land transportation and port charges. The percentage of total cost which is represented by transportation is the ratio of the sum of all transportation costs to the price of the product landed at a typical port overseas (e.g. Miami).

**Table 4.10**  
**Comparative Unit Costs of Exports from Panama**  
 (Typical Unit Prices FOB 1985 US\$)

<u>Export Product</u>		<u>Typical Total Transportation Cost as % CIF Price</u>
Shrimps & Lobsters	\$10,000-12,500/ton	2-5 %
Frozen Meat	\$ 1,900-2,200 /ton	12-15%
Bananas	\$ 300-400 /ton	40-50%
Coffee	\$ 2,400-2,700 /ton	10-15%
Pineapples	\$ 350-400 /ton	40-50%
Melons	\$ 340-380 /ton	40-50%
Grapefruit	\$ 250-280 /ton	50-60%
Fresh Cut Flowers	\$ 2,000-2,500 /ton	55-65%
Fruit Jams/Jellies	\$ 500-550 /ton	35-45%
Cocoa Beans	\$ 2,000-2,200 /ton	13-16%
Palm Oil Seeds	\$ 250-300 /ton	45-55%
Seeds, Tubers, Roots, etc.	\$ 860-910 /ton	25-30%
Wood Furniture	\$ 1,200-1,500 /ton	20-25%
Doors, Window, etc.	\$ 300-350 /ton	40-50%
Bamboo Furniture	\$ 4,000-4,200 /ton	5-10%
Cardboard Boxes etc.	\$ 530-560 /ton	35-45%
Metal Lids, Tins, etc.	\$ 9,000-9,250 /ton	2-5%
Female Underwear	\$22,000-25,000/ton	neg.

Table 4.10 shows that, for the most part, fresh fruits and vegetables are extremely sensitive to the cost of transportation. Since these products are sold on a commodity basis--the price is based on the day-to-day balance between quantity supplied and quantity demanded--there is no opportunity for the exporter to pass a transportation cost increase on to the consumer. Any such cost increase has to come out of his margin. Clearly, where transportation accounts for up to 50% of the buyer's cost, an increase of, say, 10% in the cost of transportation could reduce a seller's margin by considerably more.

**Typical Margin Analysis.** Taking the typical case of an exporter of fresh fruit and vegetables, here melons, selling in Miami Table 4.11), an estimated breakdown on a tonnage basis would be:

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**Table 4.11**  
**Estimated Cost Breakdown for Panamanian Melons Selling in Miami**

production costs	\$225 /ton
transport & selling costs	\$250 /ton
administrative costs	\$ 15 /ton
Total fixed costs	<u>\$490 /ton</u>
Total income on sale	<u>\$650 /ton</u>
Margin on sale	\$160 /ton

The margin is used for recovery of initial investment and payment of interest and, finally, some profit for the producer. It is the margin that determines whether the exporter will remain in business or not.

If transportation and selling costs go up by, say, 10% (Table 4.12), the distribution becomes:

**Table 4.12**  
**Effect of 10% Cost Increase on Margin for Panamanian Melons**

production cost	\$225 /ton
transport & selling costs	275 /ton
administrative costs	15 /ton
Total fixed costs	<u>515 /ton</u>
Total income on sale	<u>650 /ton</u>
Margin on sale	<u>135 /ton</u>

The 10% increase in transportation cost has thus reduced the margin by 16%, and has probably made production unprofitable. (We have kept the production cost constant, though in reality this would have a transportation content and would thus increase.)

Common agricultural products produce very small margins, and it is safe to suppose that most growers in Panama have much smaller margins than that shown in the above example. Thus, as a generalization, every percentage increase in the cost of transportation reduces the producer's margin by 1.5 to 2%; since the profit margin is small, only a few percentage point increases in transportation cost will account for all profit and start eating into the producer's ability to repay his debts.

As can be seen from the earlier table of comparable unit

costs, melons have a fairly average unit value for agricultural products, and include most of the properties of the typical fresh fruit and vegetable exports of the country. Thus, in economic terms, the above figures could be aggregated and generalized to represent the situation of non-traditional agricultural exports. (See Appendix A).

It is worth noting that the "traditional" export of bananas falls into the same broad unit-value category of agricultural exports. The characteristic that makes the banana "traditional" and the melon "non-traditional" is that the banana is produced and marketed on a large scale, making use of all the advantages of economics of scale. Even so, the international corporations that trade in bananas frequently run into financial difficulties, and with all their abilities to control and reduce costs and to benefit from international financing facilities, bankruptcies are common. Faced with the same class of products and small margins but without any benefits of scale, it is to be expected that producers of other agricultural exports in Panama will make a precarious living.

Transport Cost Vs Export Volume. Attempts were made during the analysis phase of the project to determine the sensitivities of export volumes to the cost of transport. It was concluded that, on the surface, the volumes exported were not directly responsive to transportation costs. This conclusion had already been reached by persons responsible for price-fixing of transportation in the country, and was used as a justification for price increases.

Unfortunately, when the actual effects of cost changes are calculated, it appears that it is indeed only on the surface, or in the short term, that the volumes shipped are insensitive to changes in transportation costs. Producers do not stop shipping the moment their costs go up; they merely find it harder to pay their debts and stay in business. In the long term, many will be

forced out of the export business entirely, making their volume eventually crash abruptly to zero.

There is a clear connection between changes in transportation charges and the ability of the non-traditional exporter to stay in business, but the volumes may not be affected immediately. Since agricultural production starts some considerable time before use is made of the transportation system, and because agricultural cost accounting is not sophisticated in Panama--the final balances are not calculated until the product has been harvested and sold--there may not be an immediate correlation between the transportation cost and the volume exported.

There will, however, be a correlation between transportation costs and businesses being started or being terminated. Amongst other things, this translates as a connection between bankruptcies and increases in transportation costs. Analysis of the goods traded each year show that a considerable number of items disappear each year from the list of exports and new ones appear. Even when export values and tonnages increase, this only happens because the composition of the exports alters. Thus, to introduce an increase in transportation costs and to note that exports did not fall off as a result is to not recognize the damage that is being done to the economy as businesses are forced into liquidation.

Not all the export products, however, are so sensitive to the cost of transportation: those items that have value added as a result of some degree of processing count transportation as a much smaller fraction of the overall cost to the buyer. Where these items are not commodities, and subject to worldwide pricing forces, the price increases can often be passed on to the buyer. With bamboo furniture, for example, prices are fixed by agreement between the buyer and the seller, and the proportion of the cost of transport is only 5 to 10%, it is therefore not likely that less would be sold if transportation costs rose, or more sold if transportation costs dropped.

## PANAMA

### CHAPTER 5

#### RECOMMENDATIONS

##### RECOMMENDATIONS SUMMARIZED

The recommendations contained in the previous sections are listed here under the headings of "physical" recommendations and "institutional" recommendations. The first require the use of funds to construct or improve items of infrastructure, while the second a program to bring about changes in operation, environment, or legislation to effect an improvement in the use of transportation.

Only those items that could be considered on a national basis are considered. Those matters that are best handled at the region level are taken up in the regional report.

The recommendations listed are then reconsidered and prioritized in the final sections of this chapter. The way in which the benefits for the various prioritized recommendations are computed is contained in Appendix A to this report.

The list of general recommendations for Panama is far longer than it is for other countries in this study. This is so because exports of non-traditional products play a far greater role in the economy of Panama than do the traditional exports. Thus the transportation impediment is far greater in a country where non-traditional exports are two thirds of total exports, instead of the more usual one third.

## Institutional Recommendations

- o introduce a more business-oriented approach in the various government agencies
- o reconsider and reform CAT to be of more benefit to the non-traditional exporter
- o lower or remove tariffs on export products
- o institute a greater national marketing and market research effort through support of the Instituto Panameño de Comercio Exterior, particularly looking for markets that take advantage of air freight option
- o establish overseas representation to check quality of goods on arrival
- o lower the import duty on trucks to be used in commercial carriage
- o break up monopolistic price-fixing collusion of the major trucking companies
- o eliminate double-charging for rail consignments to Free Trade Zone
- o lower the port tariffs at Cristobal
- o lower air freight tariffs
- o complete current study of Centro Puerto concept, especially with reference to the future use of the rail system

- o introduce training courses for shippers in advanced planning and advantages of cooperation
- o instruct shippers in techniques of quality control for export merchandise
- o introduce courses designed to increase cooperation and mutual trust between shippers
- o introduce better container handling systems at Puerto Cristobal
- o complete existing port operations study to determine training needs and additional equipment needs

#### Physical Recommendations

- o introduce programs for selective upgrading and improvements to the national highway system
- o introduce programs for increased levels of road maintenance and rural road improvements
- o introduce program to upgrade rail system operations to act as alternative to trucking
- o complete definitive study of rail system to determine role in Centro Puerto concept
- o selectively improve equipment and facilities at ports, and generally improve efficiency

- o dredge access channel at Port Aguadulce
- o introduce computerized document processing at Cristobal
- o complete the upgrading and expansion of the port at Coco Solo Norte
- o implement the plan for upgrading and expansion at Balboa currently being studied
- o introduce traffic circulation improvements at Puerto Cristobal, together with systems for better control of trucks within the port
- o introduce improved pavement design standards at all ports, and institute improved maintenance programs
- o review existing refrigerated storage space at the airport and make up any shortfall. Also, review equipment requirements and storage space requirements for future and implement make-up program.

## **PRIORITIZED INSTITUTIONAL RECOMMENDATIONS**

### **1. Contract Law Amendments**

The export of non-traditional products for Panama is not likely to become a major and permanent force in the economy of the country unless the risks of doing business can be apportioned by contracts and the business climate stabilized. Contracts are fundamental to transport, and if these can be entered into easily and if disputes arising can be resolved cheaply and consistently,

then many of the other problems relating to transport in Panama would be resolved automatically. At the time of the study there was found to be a definite disadvantage to cooperating within the country.

It is therefore recommended that a program be formulated to review the status of contracts in Panama and determine how a legal contractual integration process can be set in progress. Since such a program was outside the experience of the project team, no attempt was made to estimate the cost. The benefits would take the form of a steady year-by-year increase in non-traditional exports. At a reasonable minimum of a 2 percent increase in sales per year attributable to increased national cooperation, the benefit would be of the order of \$6.5 million increase each year.

While a complete overhaul of national contract law would clearly be a long-term project and may not be necessary, improvements and clarifications were determined to be possible over the short term. These would include:

- o The introduction of contracts of carriage. A simple form should be introduced that would enable a shipper and a carrier to enter into agreement regarding date, quantity, and cost. The penalties for default should be unambiguous and should be easily collectable. The benefit would be that the carrier could plan his operation well ahead of time to provide the most economical service. As a long-term goal, since such a measure would benefit both truckers and steamship companies, a reduction of up to 10 percent in transportation costs could be achieved.

- o The formation of exporters' groups. It is recommended that negotiating teams be set up to acquire preferential rates for members of the groups. While the organization of such groups can be easily thought out, a weakness always lies in the contractual arrangement between the group and the members: without commitment on the part of the exporters, the negotiators would find themselves looking for tariff deals without any assurances of volume. Again, it is recommended that a program be followed to determine the best legal structure that would permit a management group to bargain on behalf of prospective exporters. Given the low volume, however, the potential for freight negotiations is not great, but could reduce the transport cost by up to 5 percent.
  
- o Brokerage. In the absence of appropriate legal remedies, the services of transportation brokers are almost unknown. These services, however, would be essential if full advantage were to be taken of the contract law revisions: brokers are traditionally the ones who take advantage of the difference between regular rates and bulk rates. It is therefore recommended that, as part of the contract law amendment program, a legal framework be established for the operations of brokers.

Implementation of this program would involve the establishment of a branch of the judiciary specifically empowered to deal with contractual issues. The issues could be resolved by tribunal, arbitration, or appropriately qualified judges, but for the program to be effective the resolutions must be speedy, fair and binding. Similar institutions are in use elsewhere, such as in arbitration panels and small claims courts.

It is recommended that, in the first instance, opinions on change be solicited from the Panamanian exporting organizations, chambers of commerce, transportation companies, the various private sector business promotion bodies and the judiciary itself. One of these bodies could be given the charge of convening the discussions and recording the points made, while USAID would act in an assisting capacity for funding and assessing progress. Analysis of the comments received would require a separate project group, as would formulation of the required legislative changes. In all this it is clear that USAID would have to have a strong implementing role.

## 2. Overseas Representation

It is recommended that an overseas office be set up in, say, Miami to:

- o Inspect shipments arriving to certify condition etc.
- o Investigate to determine better markets and buyers for the region's products.
- o Train nationals of Panama in the practice of international trade, with the possibility that some trainees may take over the role of brokers.

The costs and benefits of this proposal come to cost of \$300,000 per year and increased exports of not less than \$1.0 million.

The representation could be established in the very short term. It is recommended that the most suitable implementing agency would be one such as the Instituto Panameño de Comercio Exterior to whom assistance could be given in setting up such an office.

### 3. Group Problem-Solving Assistance

A major weakness in Panama was seen to be the lack of experience in group problem-solving techniques. An improvement in this field, when taken with the previous recommendations, could put all the factors in place for genuine improvements to the problems of non-traditional exports.

It is therefore recommended that experts in this field be contracted to train a seed group of individuals in the processes of logical problem definition, consideration and selection of solutions, strategy formulation, and implementation programming. Costs would be about \$300,000 per year, for, say, three years, and benefits would be derived from measuring successes with specific problem areas. It is recommended that the program be implemented through the University of Panama.

### 4. Removal of Cost Distortions

It was determined during the course of the study that there were direct cost disincentives to export, impositions that served to do no more than directly increase costs without providing a return. These included:

- o Export Tax for Non-traditional Products. An immediate benefit to the level of non-traditional exports would result from the removal or reduction of export taxes. Reduction to an average of 2% could result in export increases of \$18 million.
- o Making the Benefits of the Certificado de Abono Tributário More Predictable and Applicable to all Non-traditional Exports. The leverage from this fiscal device is considerable, and results in export increases of similar size to those resulting from export tax reduction, or \$18 million.
- o Removal of Double-charges Where no Service is Provided. The case of rail freight to the Free Trade Zone was quoted in the text, but the inaccurate application of tariffs was mentioned by most exporters. These are direct impediments to export, though just how widespread these were could not be determined.

## 5. Education Programs

It is recommended that education and courses be made available to all those involved in the export process. This is not to take away from any of the education programs currently implemented their due recognition, but rather to recommend that they be supplemented by:

- o A training program for truck drivers. It is recommended that a school for Panamanian truck drivers be set up in Panama City. This should be a collaborative project between the Panamanian trucking companies, manufacturers of trucks, and an enabling agency such as USAID. The aim of the school would be to turn out drivers who were aware of the role that they play in the trucking industry, and

how correct driving habits can lead to more efficient use of equipment. The graduates of the course would receive a diploma that would be recognized as a sign of superior ability. The cost of such a school would depend to a great extent on how much assistance could be found from the major equipment manufacturers.

- o A training program for mechanics. It is recommended that a school for Panamanian mechanics be established in Panama City under the same arrangement as the drivers' school. The aim of the course would be not only to teach mechanics the details of repair and maintenance of heavy equipment, but also to demonstrate how to recognize and measure the results of a successful maintenance program. Again, graduates would receive diplomas of competence. The cost of buying equipment for and setting up such a school would easily reach \$2 million, but as with the drivers' school, assistance is available from equipment manufacturers.
  
- o A training program for managers of trucking companies. It is recommended that a series of seminars be arranged for the managers or would-be managers of trucking companies. The purpose of the seminars would be to introduce ideas for improving efficiency of operations. In the long term it is expected that such a class, correctly conceived and executed, could end up in eliminating empty back-hauls, and thus cut the cost of trucking by half. A more realistic estimate would be a 15% reduction in trucking costs through generally improved managerial practices. The speakers would have to be recognized experts in the field, and should clearly be able to deliver the seminar in Spanish. An annual budget of \$75,000 would be

sufficient for six speakers per year. If the speakers could visit more than one country, then the per-country cost would be less. A training program for port managers could be run on the same lines.

What is being recommended here is something of a new venture for Panama. In spite of some research it was not found that the country had any existing institution that could easily undertake the project. Given the importance to Panama of transportation in general, it is not inconceivable that a National Academy of Transportation might not be able to undertake a whole gamut of transportation-related courses, including some related to the Canal operations. At this stage, and in the absence of any obvious implementing agency, it would appear worthwhile to accumulate suggestions for needed transportation training schemes with a view to implementing them as a group.

#### 6. Increased Number of Inspectors in US Ports

A major item of cost for the average non-traditional export is the cost of maritime transport. Any program that reduces this cost can have a significant effect on increasing exports. The shipping lines complained that there was a shortage of US Customs and Department of Agriculture inspectors at US ports, and that this shortage was contributing to the costs of their operations by affecting the deterioration of perishable produce, the waiting time of truckers at the US ports before consignments are available, the tying up of shipping line personnel in waiting, and the accumulation of storage charges.

If, by the introduction of additional inspectors, the average truck waiting time could be reduced by 45 minutes, the saving for non-traditional exports could approach \$1 million each year, resulting in possible export increases of \$3 million, though the relationship established in Appendix A does not necessarily hold good for savings made after landing at a foreign port. Nevertheless, the savings could be significant.

It is recommended that a program be established to investigate how the current shortfall can be made up, though it is known that the regional shipping lines are already bringing pressure to bear to resolve the issue. Clearly, the USDA would be the recommended implementing agency.

#### 7. National Marketing Organization

There is a clear need in Panama for a well-funded and well-directed marketing organization. The main priority for this organization would be to find markets for the products of Panama that take advantage of the availability of air freight capacity. The organization would split its functions between active overseas promotion on a national basis, and analysis and investigation of potential markets.

It is therefore recommended that promotional and marketing assistance be given to Panama by the hiring of an existing firm of US marketing specialists. This firm should be given clear objectives, against which its success would be measured, and the budgets would be agreed beforehand. It is recommended that a target of 3% annual increase in non-traditional exports be established, or about \$6 million increased sales each year. This should be achieved through a marketing and promotional budget of 8%, or \$500,000.

It is further recommended that both the target and the budget be increased to include traditional exports and possibly tourism.

The recommended implementing agency is the Instituto Panameño de Comercio Exterior (IPCE), which already undertakes a limited amount of overseas representation and promotion.

#### **PRIORITIZED PHYSICAL RECOMMENDATIONS**

The unprioritized physical and institutional recommendations of the earlier section are here presented as prioritized recommendations in the form of specific programs. This process involves the aggregation of some of the recommendations into programs that can address several problems simultaneously.

##### **1. Review of Port Repair and Maintenance**

All the ports in Panama require improvements to the equipment maintenance and repair procedures. What is needed is a nation-wide investigation of the procedures, the facilities available and the level of mechanic training. The program thus requires an initial study to determine the requirements, followed by programs of procurement and training. The study could take place within the next year or eighteen months and would cost of the order of \$300,000. The subsequent stage would involve short- and long-term programs, the costs of which would be determined in the study.

Port and sea freight charges of non-traditional products amount to \$50 million per year. The effect of improved equipment operation would reduce ship stays in port, cut down on stevedoring costs, and reduce delays of moving cargo within the port. Even an efficiency improvement of one half a percent would save of the order of \$300,000 to 400,000 per year, and could increase exports by up to \$1.2 million. The Autoridad Nacional Portuaria would be the agency to undertake this project.

## 2. Review of Road Repair and Maintenance

As with the nation's ports, Panama's roads were determined to be in need of improved levels of maintenance. The determination of the investments needed to improve surfaces on a nation-wide basis was beyond the scope of this study: there were already maintenance programs in effect of indifferent efficiency, and combinations of private and public sector contracting required a detailed review. Before a national program could be introduced it would first be necessary to review current levels of capability--reviews of public sector equipment and personnel, the condition of the equipment, the condition of repair and maintenance facilities, and so on--to determine the skills and facilities that are lacking. An immediate study with a budget of \$500,000 would be able to review the situation and propose programs for improvements. The Ministerio de Obras Publicas y Transporte would be the agency responsible for the project.

Land transport for non-traditional products absorbs \$12 million per year. Of this, truck maintenance and repairs could account for \$2 million. Improved roads could benefit this figure by up to 10%, or \$200,000 a year. Non-traditional exports could be expected to increase by a possible \$0.6 million.

It should be noted that proposals for improved road maintenance programs in Panama have been formulated in the recent past, but have been slow to achieve their desired impact. It should be a prerequisite for the study being proposed here that the reasons for the lack of success of the previous programs, be established, and that these problems be avoided in future programs.

### 3. Review of Airport Facilities

It was determined during the course of the study that a major untapped resource in Panama was the availability of world-wide air transport connections. Several institutional recommendations are included in this section to promote more air freight. Any increase in the use of air freight will require upgrading the airport facilities, including:

- o increased refrigerated storage space
- o increased covered storage areas
- o increased paved areas
- o additional handling equipment.

The amount of the additional physical infrastructure will be dependent on the success of the institutional recommendations, though these could be impeded by inadequate facilities. It is therefore recommended that the existing airport facilities be reviewed in the light of the institutional recommendations to formulate a phased physical facilities implementation plan. An airfreight specialist would require about four weeks in Panama to review the existing facilities, and would require a further four weeks to elaborate a priced and phased procurement schedule. The total budget for this study would be \$50,000.

At present there is a minimum of public-sector involvement in the air freight sector, a situation which should continue. Thus the implementation of the program will be through a combination of public and private sector activity. Handling equipment, for example, will be provided by the operators of the carrier service. The storage areas available for leasing, however, vary from converted offices and passenger facilities to hangar structures. Thus the provision of more appropriate storage space will be to the account of the aviation authority (Aeronautica Civil de Panama), though this investment will be recouped through charges for leasing.

In 1986 goods to the value of about \$1 million fob per month left Panama by air. The estimated annual total of \$11 million is about 6% of non-traditional exports. Given that there already exists spare capacity in air freight--possibly sufficient for double present levels--it would be for marketing and promotion projects to achieve the \$11 million annual increase.

#### Non-Priority Recommendations

The remaining items of physical recommendations were not included as priority items for the following reason: at the time of this study there were detailed studies in progress, or about to be undertaken, regarding the future of container handling and new port construction in Panama. These included the expansion at Coco Solo Norte and the Centro Puerto Concept. The interrelationship between the ports and the role that they will play in the future will depend heavily on the conclusions of these studies. It was therefore felt to be inadvisable to recommend major changes for the ports if there were any likelihood that the conditions might change in the future.

**APPENDICES**

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## APPENDIX A

### ECONOMIC MODEL FOR BENEFIT ESTIMATES

In order to prioritize recommendations it is necessary to arrive at some estimate of benefits. Such a computation in the case of Panama, to be entirely valid, would require a degree of analysis that is beyond the scope of this study. Therefore a simplified model was adopted which, if used consistently, would at least enable the prioritization to be achieved. The assumptions that are basic to the model involve a great deal of aggregation and broad treatment, but the general results were found to be consistent with observations and experience within the region.

Since the focus of the study is on non-traditional products it was first necessary to abstract the value of non-traditional products for Panama. Table A.1 shows that, of the \$335 million exported in 1985, approximately 42 percent could be classified as traditional and 58 percent was non-traditional. Thus the recommended improvements will be required to increase non-traditional exports over the \$195.2 million exported in 1985.

**Table A.1**  
**Panama**  
**Traditional/Non-Traditional Exports**  
**1985**  
 \$ million f.o.b.

<u>Total Exports</u>	<u>Traditional Exports</u>	<u>Non-Traditional Exports</u>
335*	Bananas 78.1	
	Coffee 13.0	
	Sugar 27.3	
	Beef 1.5	
	Refined Crude 19.9	
335*	139.8	195.2
100%	42%	58%

\* Excluding reexports from Colón Free Trade Zone.

Source: Economist Intelligence Unit Quarterly Reports  
 Additional estimates by PBI.

The next assumption answered the question: if the 1985 non-traditional exports could be represented by a single product, what would be the cost breakdown associated with its exportation? It is clearly not sensible to consider that transport equipment and bananas would have the same cost profile, but since this report shows that the typical non-traditional export was a basic manufactured or agricultural market with a unit value of about \$1,500 per ton f.o.b., it was felt that the breakdown contained in Table A.2 was sufficiently representative.

Of significance in the table is the fact that transportation can account for between 15 and 25 percent of the c.i.f. price of the average product, and margins are typically 10 to 15 percent.

**Table A.2**  
**Panama**  
**Typical Export**  
**Cost Allocation**  
**1986**

	<u>% of total</u>
Production cost	35-40%
Transport cost	35-45%
Admin. costs	5-10%
Margin	12-18%
Sale price c.i.f.	100%

Based on figures obtained for typical non-traditional agricultural export.

To determine the benefit of programs directed at improving the various transportation modes, it was necessary to assess the contribution of the modes to the total cost of transportation. Again, this process involved a considerable amount of aggregation of dissimilar items, but for comparative purposes the breakdown shown in Table A.3 was found to give results that were consistent.

**Table A.3**  
**Panama**  
**Typical Export**  
**Transport Profile**  
**1986**

<u>Mode</u>	<u>% of total</u>
Land to port 1	13-18%
Port charges 2	10-20%
Sea freight 3	40-50%
Port charges USA	<u>16-21%</u>
Total transportation	100%

Notes:

- 1 Includes collection from main production area and delivery to dockside
- 2 Includes all charges payable to port authority, stevedores etc., allocated to cargo loaded
- 3 Includes vessel operating costs from CA port to USA port

**Table A.4**  
**Panama**  
**Typical Export**  
**Total Cost Profile**

	<u>Percent</u>	<u>Value</u> <u>US\$ million</u>
Production cost	35-40%	118
Transport cost	35-45%	120
Land	5-10%	22
Port C.A.	5-10%	22
Freight	16-20%	58
Port USA	5-10%	22
Admin. Costs	5-10%	24
Margin	<u>12-18%</u>	<u>50</u>
Total c.i.f.	100%	\$320

Note: Individual cost breakdown items do not necessarily add to export total due to the fact that they represent high or low ends of the percentage ranges shown.

Table A.4 gives a cost profile of the typical export from Panama. It shows the approximate amount spent on each cost category in 1985.

The total value of transportation for non-traditional exports from Panama is of the order of \$120 million, with about \$58 million being spent on sea freight and about \$44 million being collected by the ports. The trucking industry accounted for about \$22 million.

About \$50 million was returned to the producers to pay for overheads and profit. This sum went to make interest payments, pay for depreciation, management, general equipment and so on, and what was left was profit.

If a recommended program manages to reduce transportation costs by 1 percent, or \$1.2 million, the margin is increased from \$50 million to \$51.2 million, or 2.4 percent. If the same cost profile is maintained overall, then a margin of \$51.2 million should support a total value of exports of about \$328, or an increase of \$8 million. On this basis there is about a 3 to 1 benefit to be obtained in non-traditional product exports for each percentage point decrease in the cost of transport.

Clearly, for the model to work accurately all other factors would have to remain equal: there would have to be no change in production cost, and rates of interest--a large component of margin--would also have to be unchanged. Throughout Central America forces are at work to reduce both these factors, in the face of which there is probably some small capacity to absorb increases in the cost of transportation. The report shows, however, that non-traditional exports are extremely sensitive to both economic conditions and cost of transportation, and factors that have served to reduce the amount available for margin have also served to reduce the total value of non-traditional exports.

## APPENDIX B

### ECONOMY AND TRADE OF PANAMA\*

#### ECONOMIC OVERVIEW

##### Principal Sectors

The performance of the Panamanian economy is to a large extent dependent on its services sector. In 1983 services contributed about 70 percent of GDP. Banking, commerce, the Panama Canal, and government services each constitute between 9 percent and 12 percent of GDP. The Panama Canal, activity in the Colon Free Zone, the new oil pipeline, and international offshore banking are the major generators of invisible inflows. Thus the performance of the current account can be seen to be dependent not on growth in earnings of traditional exports, but rather on the levels of world and regional trade and the financial position of Panama's trading partners.

Offshore banking has been attracted to Panama because the currency is par with the US dollar, the lack of revenue requirements, the pool of skilled labour and the strict banking secrecy laws. Deposits with offshore banks grew rapidly in the 1970s, with the flight of capital from Latin American countries with overvalued currencies; this capital was then lent back to those countries.

\*This appendix is based on "Mexico, Central America and the Caribbean - Economic Structure and Analysis", published by the Economist Intelligence Unit.

The government's economic policies are to a large extent influenced by conditions on agreements with the IMF and the World Bank, both of which are involved in specific programs, the former to reduce the current account deficit and limit the growth of external indebtedness and the latter in the form of a structural adjustment program targeted to provide a better climate for private investment and raise the efficiency of state entities, with an added emphasis on the agricultural sector. The restrictive measures implemented by the Barletta administration in March 1985 were sufficient to secure a standby loan from the IMF.

### Currency

The Panamanian currency unit, the balboa, has been at par with the US dollar since 1934, and is completely convertible. US bank notes and coins circulate widely, and are an important part of currency in circulation.

### National Accounts

The year 1983 saw a sharp reduction in real GDP growth from 5.5 percent in 1982 to 0.4 percent. Achievement of even this minimal level of real GDP growth was a good result considering the adverse conditions facing the economy. The industrial sector fared particularly badly with construction output falling by 27.8 percent due to the completion of the Fortuna hydroelectric project and the cutback in government expenditure and sponsored projects as the government fought successfully to reduce the budget

deficit. With manufacturing output falling by 2.3 percent, but with positive growth prevailing in the electricity and water industry, industrial output as a whole fell by 7.6 percent. Agricultural output growth was good at 3.1 percent. The all important service sector grew by 2.3 percent, with negative trends in commerce, the Panama Canal, and the Colon Free Zone. This was offset by considerable growth in the contribution of the new oil pipeline and more modest rates in banking and government services. Factors which depressed the service sector were the cutback in the level of imports by Latin American countries facing payments problems (which led to a 34.2 percent reduction in trade volume through the Free Zone) and the generally sluggish rate of growth of the economy which impacted commerce in general. The offshore banking sector, having shown a high level of activity in 1981-2 when lending to Latin American was at its peak, also fell away in 1983 as payments problems became apparent. World trade levels dropped and some movement of loan bookings back to US parent banks took place due to better interest and commission rates.

**Table B.1**  
**Panama**  
**Economic Growth**  
(million balboas)

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984*</u>
<u>Total</u>					
GNP at current prices	3,448.8	3,799.4	4,140.0	4,381.1	...
GDP at constant 1980 prices	3,558.8	3,707.6	3,911.1	3,926.7	3,878.4
% real change	15.1	4.2	5.5	0.4	-1.2
<u>Per capita</u>					
GNP at current prices	1,815.2	1,958.5	2,029.4	2,096.2	...
GDP at constant 1980 prices	1,873.1	1,911.1	1,917.2	1,878.8	1,805.0
% real change	12.1	2.0	0.3	-2.0	-4.0

\* estimate

Source: IMF, International Financial Statistics

Economic performance in 1984 was adversely affected by the same factors which led to the stagnation of GDP growth in 1983. Following its strict guidelines under the IMF agreement through to December 1984, the government is estimated to have reduced expenditure to around US\$ 1.17 billion while revenues remained steady at US\$ 1.12 billion resulting in a small deficit. The impact of these events has been contractionary, leading to an estimated fall in the industrial sector of 3.0 percent, with construction again contracting but not as far as in 1983. The slight easing of market conditions in Latin America led to an upturn in the volume of trade through the Colon Free Zone, estimated at 6.9 percent, while the rest of the services sector, including banking, declined. Foreign assets of the international license banks and reporting deposit money banks declined by 13.3 percent over the period, continuing the trend exhibited in 1983. Overall, the services sector is estimated to have fallen by 2.0 percent in 1984. Real GDP fell by 1.2 percent in 1984, with private consumption estimated to have fallen by 1.0 percent and gross fixed capital formation estimated to have dropped back by 2.0 percent.

**Table B.2**  
**Panama**

**Industrial Origin of Gross Domestic Product**  
(million balboas; constant 1982 prices)

	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983*</u>
Agriculture, forestry and fishing	410.4	393.9	426.5	427.9	441.3
Manufacturing and mining	395.4	419.9	407.9	418.1	409.3
Construction	232.2	281.9	290.9	360.8	260.3
Electricity, gas, water & sanitation	118.8	121.3	127.4	134.2	147.6
Transport, storage & communications	352.4	470.7	490.0	560.1	698.0
Wholesale & retail trade, restaurants and hotels	546.3	581.4	573.5	569.4	533.3
Financial services	377.6	408.2	429.3	416.1	433.3
Other services	559.6	825.2	872.3	938.5	886.6
Government	<u>445.6</u>	<u>456.2</u>	<u>505.4</u>	<u>526.3</u>	<u>549.4</u>
Total	3,438.3	3,958.7	4,124.3	4,351.5	4,391.8

\* estimates; components do not add to total

Source: Inter-American Development Bank, Economic and Social Progress in Latin America.

## AGGREGATE ECONOMIC ACTIVITY

### Employment

Panama's sectoral composition of employment reflects the importance of the service sector. In 1983 tertiary employment accounted for 54 percent of total employment. Agriculture, on the other hand, provided less than 30 percent of total employment. Unemployment has risen sharply since 1983 as measures to cut the budget deficit reduced public sector employment. The rate of unemployment was 12 percent in 1984. Table B.3 shows the number of people employed in each sector in 1979 and 1983.

**Table B.3**  
**Employment by Sector**  
(thousands)

	<u>1979</u>	<u>1983</u>
Agriculture	154.9	169.9
Manufacturing and mining	54.1	62.7
Construction	20.8	35.7
Electricity, water and gas	6.4	9.1
Transport, storage and communications	28.6	37.3
Trade, restaurants and hotels	70.8	86.7
Financial services	19.6	27.7
Other services	144.2	158.6
Unspecified	<u>17.6</u>	<u>11.6</u>
Total	527.0	599.3

Source: ILO, Yearbook of Labour Statistics

### Inflation

Inflation in Panama closely follows changes in US prices as a result of the openness of its economy, the fixed parity of its exchange rate with the US dollar, and the absence of an independent monetary policy. With US currency widely used alongside the balboa, Panama is effectively a part of the dollar area, and interest rates are determined by world financial conditions.

Panama's recent inflation performance has been good. The consumer price index rose by 1.6 percent in 1984 after a 2.1 percent rise in 1983. Table B.4 shows the fluctuations in consumer price indices between 1980 and 1984.

**Table B.4**  
**Wholesale and Consumer Prices**

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
Consumer prices (1970=100)					
general	196.9	211.3	220.2	224.9	228.4
food	212.3	231.8	245.5	251.2	256.5
Wholesale prices (1975=100)					
general	160.0	176.0	191.0	195.0	197.0

Source: UN, Monthly Bulletin of Statistics

## MAJOR ECONOMIC SECTORS

### Agriculture, Forestry And Fishing

Agriculture. The land area of Panama is 7.6 million hectares, of which 582,000 hectares are arable and permanently cultivated land and 1.2 million hectares are permanent pasture. The extension of the Inter-American Highway into the Darien gap has opened up a new source of valuable, virgin land for cultivation. Despite some efforts at land redistribution in the period 1969-77, farm sizes remain very unequal. The sector, which employs about 30 percent of the workforce, accounts for some 10 percent of GDP, a much smaller proportion than elsewhere on the isthmus. However, greater emphasis is now being given to its expansion.

Early in 1973, a new Ministry of Agricultural Development was formed, incorporating all public agricultural offices, including previously autonomous ones. Its objective was to increase productivity, reform the market and production structure, and develop the agricultural infrastructure. The Instituto de Mercadeo Agropecuario encourages the production of agricultural goods both for export and domestic consumption. It operates a support price scheme for local producers of basic foodstuffs.

The agricultural sector expanded by 8.3 percent in 1981 but by only 0.3 percent in 1982. The year 1983 saw an improvement, with a growth rate of 3 percent, the effects of a drought notwithstanding. A sharp fall in the value of agricultural exports in 1984 resulted in another disappointing year, however. The main export crops are bananas and sugar. The state's marketing arm, Comunbana, competes with the multinational fruit company, United Brands, in the distribution of bananas.

**Table B.5**  
**Panama**  
**Agricultural Production**  
(thousands of tons)

	1980	1981	1982	1983	1984
Bananas	1,050	1,045	1,057	1,100	1,100
Rice	162	195	176	199	175
Maize	63	57	62	69	80
Dry beans	4	3	3	3	3
Coffee	7	7	8	9	9
Sugar	...	155	162	188	180

Source: FAO, Production Yearbook

**Forestry.** There are vast unexploited forest resources, and a timber industry is now being developed. A total of 2.2 million cubic meters of roundwood were produced in 1981. The FAO estimated the number of cattle in 1984 at 1.47 million head. In 1983 there were also an estimated 200,000 pigs and 6 million poultry.

Fishing. Shrimp are now Panama's third most important export. The total fish catch was 76,000 tons in 1975, rising to 126,000 tons in 1981. Both private and public investment is taking place in aquaculture, and the industry is expected to increase output further.

### Mining

Panama's mining deposits are varied and include gold, silver, copper, and coal. Although mining has only been carried out on a small scale to date, there is considerable potential for its development, especially where copper is concerned. There is a 300 million ton deposit at Petaquilla and others of yet undetermined size at Cerro Chorchá and Rio Pinto. The most important source, however, is at Cerro Colorado (Chiriquí) where Pavonia, a subsidiary of Canadian Javelin, discovered deposits. Pavonia made plans for the development of the deposits, which are put at 1,300 million tons of ore. An investment of over US\$ 600 million and an initial milling rate of 80,000 tons a day are foreseen. It is also planned to build a processing complex on site, but negotiations between the government and Canadian Javelin on the terms of the development contract broke down in 1975. In 1976 the government signed two agreements with Texasgulf: the first gives Texasgulf a 20 percent stake in the project, the second is a management contract which is to run for 15 years. The company has now withdrawn from Panama, however, and an agreement was signed between the government and Rio Tinto Zinc (RTZ) for the latter to take over Texasgulf's interests. As a result of this, RTZ acquired in 1980 a 49 percent share in Empresa de Cobre, the operating company which will eventually run the copper mines. Since then, RTZ has suspended operations at Cerro Colorado until world copper prices improve.

A Japanese consortium under the name of Cobre Panama had a four-year exploration contract for a 40,000 hectare site in Colon province (near to Petaquilla) which expired in 1977. Reserves are estimated at 300 million tons with 0.7 percent copper content. Asarco of Canada and Noranda Exploration have been looking for copper in the Provinces of Chiriqui and Bocas del Toro and in the Darien region, respectively. Two subsidiaries of Canadian Javelin are prospecting for gold and silver in Veraguas, and a discovery of viable deposits was made in 1980, but production has not yet started.

### Energy

Panama depends on oil imports for 70 percent of domestic energy consumption. Petroleum refining capacity exceeds national requirements, and exports of refined petroleum products have been an important source of foreign exchange earnings. However, these exports ceased in late 1983 due to the glut in the world oil market.

The Institute for Hydraulic Resources and Electrification (IRHE) had planned to increase the country's generating capacity from its 1973 level of 241 MW to 923 MW by 1982. By the end of 1981 it had reached 755 MW, of which 455 MW was obtained from thermal and 300 MW from hydroelectric sources. (Electricity production in Panama was 2,700 million kWh in 1982.) Panama's largest hydroelectric plant, with 300 MW capacity, is at La Fortuna, built at a cost of some US\$ 500 million. There is another hydroelectric plant at Bayano with a 150 MW capacity. The installation of hydroelectric stations has helped Panama to reduce its dependence on oil as a power source from 100 percent in 1959

to 32 percent in 1981. Panama's hydroelectric potential is estimated at 2,500 MW, although only a small proportion of this is presently utilized. In February 1983, Panama and Costa Rica signed an agreement to integrate the electrical power systems of the two countries. It was estimated that such an arrangement could save Panama US\$ 35 million per year by 1984-85.

Mobil, El Paso, Sante Fe International, and Oceanic Exploration among others have oil exploration concessions in the Gulf of Panama--the only large unexplored tertiary basin in western Latin America. Seismic Explorations has acreage offshore at both the Pacific and Caribbean coasts. The Refineria Panama (a subsidiary of Texaco) operates a 100,000 barrels per day refinery at Las Minas, near Colon. An oil strike off the San Blas islands was made in 1980, and in the same year Sossa Petroleo, the US-Panamanian oil exploration firm, announced the discovery of a 500 million barrel petroleum deposit 100 km east of Panama City.

The Trans-Isthmus oil pipeline was completed in October 1982 with a maximum throughput of 830,000 barrels per day.

### Manufacturing

The ready availability of imported consumer goods in the Canal Zone had held back industrial development despite special inducements to investors. Existing industry is mainly food processing and there are no heavy industries, except for a small state mill and a cement plant. Since 1974 the government has taken the lead in industrial development, having installed four new sugar mills and building a cement plant at Bayano. The state

also owns 40 percent of the equity in the Trans-Isthmus oil pipeline, while telephone and electricity services are largely state controlled. The Government of Panama is, however, committed to expanding the role of the private sector and is contemplating the sale of some public companies to the private companies.

The government set up the Corporacion Financiera Nacional (CFN) in 1976 to support private sector investment, as well as transport, natural resources development, and tourism. The CFN is empowered to aid private companies and to become involved in mixed enterprises. The government offers incentives to private manufacturers in three categories: (1) those producing for export; (2) those producing for national consumption; and (3) those willing to locate in specified areas of Panama. The incentives available are most generous to firms in the first category.

In 1981, the government opened two industrial parks in an effort to encourage the establishment of small and medium sized businesses. The system of industrial protection was revised in 1982 with the replacement in many cases of quotas by tariffs. Since 1983, payments guarantee agreements have been signed with El Salvador, Costa Rica, and Guatemala.

After shrinking by 3.3 percent in 1981, manufacturing GDP grew by 2.4 percent in 1982, before falling again by 2.3 percent in 1983, as a result of reduced public sector investments (which caused the construction sector to contract by 27.8 percent that year). By 1983, the effects of the world recession were also being felt in Panama, and the manufacturing sector found that both its domestic and overseas markets had declined.

## Finance and Foreign Debt

Cutbacks in public expenditure have been pursued since 1983 with a very beneficial impact on the chronic public sector budget deficit. As a percentage of GDP, the budget deficit fell from over 8 percent in 1982 to slightly more than 1 percent in 1983, and to less than 1 percent in 1984. The introduction of further austerity measures in March 1985 secured a rescheduling of foreign debt in 1986.

Since July 1970, when a new banking law was enacted in Panama, there has been a spectacular growth in the financial sector. Foreign banks have been attracted to Panama not only by the law which put an end to "paper" banks and established respectability for banking, but also by the absence of foreign exchange controls and of reserve requirement or interest rate restrictions on foreign deposits. Moreover, profits from offshore banking operations are not liable to income tax. In 1985, there were over 129 banks operating in Panama, compared with 21 in 1970. Total bank assets rose from US\$ 3.6 billion at the end of 1973 to US\$ 38 billion in June 1984. The rapid expansion of the sector, however, now appears to be over.

Panama's foreign debt is one of the highest in the world on a per capita basis. Debt service is now projected by the World Bank to have reached US\$ 551.5 million in 1984, rising to US\$ 782.5 million by 1987. Most of Panama's external debt is owed to private creditors, which means that Panama has been seriously affected by the rise in commercial interest rates between 1979 and 1983. The government has been following a restrictive fiscal

policy since 1983. The March 1985 fiscal package was sufficient to convince the IMF that the government has the ability to tackle its debt problem and Panama secured a US\$ 130 million standby loan from the IMF. This, in turn, improved the chances of a further debt scheduling in 1986.

## FOREIGN TRADE

### Foreign Trade Patterns

Panama usually runs a very large trade deficit, which is offset by earnings from the export of services.

**Table B.6**  
**Foreign Trade**  
(US\$ million)

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	
Exports fob		360.5		328.1	374.8	321.1
276.0						
Imports cif		-1,448.6	-1,540.1	-1,569.3	-1,411.9	-1,423.1
Balance		-1,088.1	-1,212.0	-1,194.5	-1,090.8	-1,147.1

Source: IMF, International Financial Statistics

Bananas and shrimp have been the most important exports since 1982. Exports of refined petroleum dwindled from US\$ 70.1 million in 1982 to just US\$ 5.3 million in 1984 as a result of oversupply in the world oil market.

**Table B.7**  
**Main Commodities Traded**  
(US\$ million)

<u>EXPORTS</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
Bananas	65.9	75.0	74.7
Shrimp	52.9	51.4	46.7
Refined petroleum	70.1	36.3	5.3
Sugar	23.7	41.3	33.3
<u>IMPORTS</u>	<u>1981</u>	<u>1982</u>	
Petroleum and petroleum products	368	365	
Industrial supplies and consumer goods	874	804	
Transport equipment and machinery	217	290	

Sources: Panama en Cifras; UN Yearbook of International Trade Statistics; IMF, International Financial Statistics.

The USA is by far the most important export market, accounting for 38.9 percent of Panama's exports in 1983. Japan overtook the USA as the largest source of Panama's imports in 1983.

**Table B.8**  
**Panama**  
**Main Trading Partners**  
(% of total trade)

<u>EXPORTS TO</u>	<u>1982</u>	<u>1983</u>
USA	41.5	38.9
West Germany	5.9	5.4
Belgium	4.3	3.8
Costa Rica	3.3	3.2
<u>IMPORTS FROM</u>	<u>1982</u>	<u>1983</u>
USA	35.0	20.0
Japan	7.6	31.0
Venezuela	10.0	4.7
Ecuador	5.5	3.6

Source: IMF, Direction of Trade

Since its creation in 1953, the Colon Free Zone has become Panama's second largest source of service income, after the Canal. It has now been expanded into territory that had been under US jurisdiction previously. Trade was valued at US\$ 4.2 billion in 1981, but since then the value of trade has declined sharply because of unfavorable external conditions. The Colon Free Zone re-exported trade worth US\$ 1.4 billion in 1984, while its imports were valued at US\$ 1.1 billion, making the total trade through the zone US\$ 2.5 billion.

## APPENDIX C

### THE WORLD BANK REPORT

#### EXTRACTS PERTINENT TO THE EXPORT OF NON-TRADITIONAL PRODUCTS FROM PANAMA

Included in this Appendix are those sections of the 1985 World Bank Country Report (Panama: Structural Change and Growth Prospects) that are relevant to the problems of non-traditional exports.

It was found during the course of the present study that the findings of the World Bank team were still valid two years later, and most of their conclusions and recommendations agree closely with the findings of the regional transportation team.

The conclusions of the World Bank report are the result of studies that were far more detailed than was possible for the present report, and are thus considered a valuable background for the current investigation of non-traditional exports.

**PANAMA**

**APPENDIX C**

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## SUMMARY OF MAJOR CONCLUSIONS (EXTRACTS)

On October 11, 1984 Panama's first democratically elected Government in 16 years took office. It confronts a serious economic situation. Real per capita output has stagnated since 1980, and GDP since 1982. The principal growth sources since 1970--the public sector and the internationally oriented service sector--have dried up. The public sector is under a severe financial constraint: it must service, under conditions of acute scarcity of commercial credit, an external debt of 73 percent of GDP, larger in relative terms than those of Argentina, Brazil or Mexico. The export-oriented service sectors are heavily dependent on the Latin American market; they are therefore unlikely to recover dynamism until a regional recovery takes place. High and rising urban unemployment, perhaps the major economic problem the country faces, could soon become a divisive social issue. Given the moderate growth prospects for services, more rapid expansion must be centered in the directly productive sectors of agriculture and industry. The entrepreneurial initiative and investment finance for this must come from private sources rather than the financially weakened public sector. Moreover, the domestic market is small and largely saturated; merchandise exports must therefore become the engine of growth.

ii. The encouragement of the appropriate blend of export-oriented, labor-intensive activities requires: (i) a major overhaul of the structure of incentives which is currently geared towards import substitution and which results in the minimization of employment; (ii) a leaner, more efficient public sector, both

to ease Panamá's severe fiscal burden and release resources for private investment; and (iii) specific reforms to tackle individual sectoral inefficiencies. Because it uses the US dollar as a medium of exchange, Panama cannot exercise the option of compensating exporters through exchange rate adjustment. All sources of high cost and inefficiency must therefore be tackled individually.

iii. Parallel with a severe program of fiscal stabilization and austerity, the Government has begun to address these issues through a series of fundamental reforms. After successfully carrying out important initial measures, the Government needs now to broaden and deepen this adjustment process to improve the investment climate, address labor market rigidities and promote efficient resource allocation.

#### A. Macroeconomic Policy

iv. Export expansion by the goods sectors is now vital. The World Bank's macroeconomic projections show that continued reliance on the service sector alone will not generate sufficient growth to permit significant increases in real per capita consumption or to absorb the rising labor force, even under favorable international conditions. This requires a thorough revision of the current structure of incentives. The current bias towards import substituting activities for a small, protected market must be reversed, and exporting made at least as profitable. This can effectively be accomplished by a general opening of the economy to international competition, thereby

permitting entrepreneurs to obtain raw materials and intermediate goods at close to international prices. Indeed, those economies that have tried to graft an efficient export sector onto a virtually unchanged import substituting one have met with very mixed success. This is because the high costs and inefficiencies in the protected parts of the economy inevitably erode the competitiveness of the exporter. By contrast, where general, open economic policies have been followed, the results have often exceeded the expectations of the policies' most enthusiastic advocates. This is not to say that success is guaranteed; on the contrary, an export-oriented, market-based strategy is by definition a step into the unknown. But experience elsewhere, particularly in small economies with a powerful entrepot tradition to build upon, indicates that it is the best way to break out of the vicious circle of high costs and stagnation.

v. To become a successful exporter, however, it is not enough to restructure incentives. All the inefficiencies and sources of high costs which pervade the economy must be addressed if the goods sectors are to compete internationally. Here a distinction may be made between non-tradable and tradable goods and services. Among the non-tradables, the experience of successful exporters shows that cheap, reliable, basic public services, such as electricity, water and telecommunications, are a cornerstone of development strategy. In Panama, their cost must be brought down. This must be tackled through reducing the operating costs of the entities concerned. Similarly, the cost of export related services such as the ports and land transportation needs to be reduced. This can be achieved through improvements in infrastructure and equipment, increasing operating efficiency through concessions to the private sector under competitive condition, and through institutional reforms aimed at ending restrictive practices which pass high costs onto the user.

vi. In the case of tradable goods, examples abound in the Panamanian economy of very high prices for staple goods; this inevitably adds to upward cost pressure. Cement is produced domestically at over twice world costs and sold to the consumer at three times world prices; farmers pay a high price for fertilizers and chemical pest controls; the ex-refinery price of most petroleum products is about a third above that of other refineries in the Caribbean area; the high cost and inefficient agricultural and agroindustrial sectors, subsidized through high support prices and import restrictions, lead to upward pressure on urban wages, reinforcing labor market rigidities and high social security charges; and local industry, protected from outside competition, sells most of its products at prices well in excess of world levels. Ultimately, these costs can only be brought down through exposing the sectors concerned to international competition. Clearly this needs to be done gradually to minimize the disruptive impact on employment; however, it must be done if the economy is to become competitive, Panama can no longer afford the luxury of subsidizing these activities.

vii. The formidable array of bureaucratic controls on prices and marketing, particularly in agriculture and agroindustry, also needs to be dismantled since it constitutes a barrier to potential exporters. Exporters have to pass through some eight or ten complex administrative procedures in the case of many product groups; often the only legal way to overcome these barriers is to export through the state marketing institute, IMA.

viii. A revised development strategy and incentive system will require complementary investment if it is to be successful. However, the quality of the investment is much more important than its quantity. Panama has had very high levels of investment, averaging over 20 percent of GDP since 1970, but this has not laid adequate foundations for future expansion. Much of it was concentrated in the state sector, while a significant proportion of private investment was geared to the local market in activities heavily subsidized, directly or indirectly, by the State. The productivity of the new capital was consequently low. New private investment needs to be encouraged in export-oriented, employment intensive activities, with much higher output per unit of capital spent.

ix. To achieve this, the investment climate must be improved. This is not only a matter of an appropriate legal framework and incentives; confidence must be engendered in the permanence of the new policy and "rules of the game." This can only be incalculated through public commitment, both at the highest political level and by the newly elected legislature, and through a well planned campaign of "public education" showing the necessity for, and may not be enough, at least initially. Efforts to attract foreign investment through the National Investment Council and similar initiatives must therefore be intensified. These could be linked to the identification and dissemination of opportunities in the US market arising from the Caribbean Basin Initiative. Successful export projects require not merely capital but entrepreneurship, technology, management skills and an appropriately trained labor force as well. This is particularly so for the relatively high value products on which Panama will have to concentrate, given its comparatively high labor costs.

xvii. State intervention has tended to favor those subsectors (e.g., sugar and rice) where Panama's comparative advantage is not strong. By contrast, where potential does exist, it is often hampered by bureaucratic intervention or by inappropriate pricing policies. Panama's possibilities for expanding exports lie principally in (a) salt-water, farm-bred shrimp for which production capacity could be profitably quintupled within a very few years; (b) dual purpose semi-intensive cattle raising in the central and western coastal plains and foothills; (c) small-scale, labor-intensive production of tropical export crops (e.g., coffee, cacao), and of temperate zone vegetable and fruit crops in the upper altitudes; (d) equally small-scale labor-intensive growing of selected vegetable and fruit crops with irrigation near the rivers of the central provinces; and (e) development of the country's considerable forestry potential. Movement toward this, or a similar output pattern, would also be socially desirable in that it reduces the importance of crops with marked seasonality of employment, such as sugar cane.

xviii. For this potential to be more fully realized, this report develops four general guidelines to help the Government reorient its agricultural strategy towards a new period of growth. First, support prices should be lowered until they approach internationally competitive levels. This should improve resource allocation and reduce costs to the consumer. In particular, immediate action should be taken to reduce the high support price for rice, which is threatening the financial stability of the state marketing institute, IMA. Second, the State should refrain from entering into direct production in competition with the private sector wherever competitive conditions prevail. The possibilities of privatizing existing state production should be

considered on a case-by-case basis. Third, price controls should be reduced on agricultural and agroindustrial inputs and outputs. They not only lead directly to the misallocation of resources; their administration inevitably spreads into control of exports and imports, thereby impeding expansion of export-related activities. Price controls can be justified only to mitigate the social effects of an actual or impending scarcity of a mass consumption good. Panama's open economy in principle guarantees that such scarcities cannot arise provided the Government liberalizes commerce and does not interfere with the market. Fourth, a significant obstacle to export-oriented private investment in agriculture is uncertainty about the continuity of any given economic policy measure or set of measures. The creation of a climate of certainty would likely do more for stimulating private investment than many incentive measures. Investors and entrepreneurs need stable "rules of the game" long enough to promise a reasonable rate of return on their investment.

xx. The Authorities could take a number of specific actions to enhance industrial export prospects. First, they may wish to increase public awareness of their new trade and industrial policy. This would reduce uncertainty and accelerate the desired reallocation of resources. Second, institutional support for exporters could be increased. Third, the Caribbean Basin Initiative (CBI) will benefit Panama's export drive provided the promotional institutions, such as the National Investment Council, familiarize themselves with CBI rules, provide updated information to investors and coordinate with promotion agencies in other beneficiary countries to explore possibilities of obtaining economies of scale through joint operations. The potential

vanguard of Panama's CBI response could be the experienced and successful traders of the Colon Free Zone (CFZ). The Zone merchants also require information concerning the CBI's detailed trade provision, and this information should be channelled to them on a systematic basis.

xxi. There is considerable scope for expansion of free zone and export-oriented industrial activities in the reverted Canal Area. To develop this potential, a number of interrelated policy changes are required.

xxii. In principle, Panama's geographic position and international transport infrastructure should provide a springboard for the expansion of goods exports. In practice, this potential cannot be fully tapped because of a number of institutional deficiencies and cost disadvantages. First, Panama's ports require improved management, equipment and payout. Second, other institutional factors in the transport sector, such as monopoly practices in land transportation, not only increase costs to the user but reduce operational flexibility and limit technological initiative. Since the container revolution, Panama has lost most of the transshipment business related to Canal traffic to neighboring ports, while use of the Trans-Isthmian land bridge, which could have considerable potential, is very limited. While there is a need to modernize port equipment, the role of the public sector should be limited to the provision of basic infrastructure. Port operation and management, particularly container transshipment, would likely be more efficiently handled by private sector concessions operating under competitive conditions. This would help to reduce port tariffs and operating costs and increase the rate of port throughput. On all these

counts, Balboa and Cristobal currently compare unfavorably with other ports of the Region. A study is already underway to address these issues and determine the possible role of the Trans-Isthmus railroad in container transshipment. Action should be taken urgently to end monopoly practices in the trucking industry which result in very high tariffs, thereby hurting Panamanian exporters and reducing the potential for the development of intermodal transport operations across the Isthmus. Barriers on entry to the trucking industry should be removed, and the prohibition on the operation of foreign truckers lifted. The economies of scale in transportation, particularly containers, are highly significant. Should these recommended reforms result in a significant increase in transshipment operations and related activities in the Canal ports and across the Isthmus, they would likely result in both reduced unit port costs and cheaper and better shipping options for Panamanian exporters.

#### **F. Final Remarks**

xxvii. The analysis of this report suggests that Panama has considerable potential for returning to a growth path within two or three years. It is endowed with a geographic location at the crossroads of world trade, a sophisticated, export-oriented commercial sector, an open, well developed financial system, a relatively well trained and frequently bilingual labor force, good communications and an adequate international transport infrastructure. But to build upon these assets, the Government must continue removing constraints to this growth by putting in place a framework conducive to private investment and expansion of exports. This will involve deepening and extending the structural

adjustment process to which such a good beginning has been made. The likely alternative is continued stagnation, increasing strain on the social fabric, and erosion of Panama's creditworthiness.

xxviii. In order to encourage the right kind of export-oriented, labor intensive investment the Government should: (i) accelerate the restructuring of incentives, many of which currently point in the wrong direction; (ii) remove labor market rigidities and legal impediments to employment; and (iii) progressively open the economy to international competition while dismantling the regulation of prices and trade which discourages investment and impedes exports. At the same time, public sector resources must be increased to finance an investment program oriented to support private initiatives, and to meet expected heavy future outlays in the social sectors. A prudent, coherent and well-planned fiscal policy, combined with an open economy growth strategy, will not only confirm Panama's creditworthiness, but also improve the allocation of scarce resources, attract foreign capital and lay the foundations for future prosperity.

## **B. The Structural Adjustment Program**

1.9 In several important respects, the Panamanian economy is not well structured as a goods exporter. A clear dichotomy exists between the previously dynamic, internationally oriented service sector and the inward-looking, over-regulated goods sectors. Encouraging the appropriate blend of export-oriented, labor intensive activities requires: (i) a major overhaul of the structure of incentives which is currently geared towards import substitution and results in the minimization of employment; (ii)

a leaner, more efficient public sector, both to ease the fiscal burden and release resources for private investment; and (iii) specific reforms to tackle individual sectoral inefficiencies. Because of its use of the US dollar as a medium of exchange, Panama cannot exercise the option of compensating exporters through exchange rate adjustment. All sources of high cost and inefficiency must therefore be tackled individually. Relatively high wages and social charges, labor market rigidities, and inefficiencies in public sector enterprises are reinforced by expensive locally produced intermediate goods such as petroleum products and cement; a high cost, heavily protected local industrial sector; an inefficient agricultural sector geared to self sufficiency irrespective of economic cost; high cost and inefficient port operations; a monopolistic structure of internal road transport services resulting in high rates; and dominance by a few firms of the distribution of a number of imported commodities such as fertilizers, vegetable oils and grains.

1.0 Parallel with its program of fiscal stabilization and austerity, the Government has begun to address these issues through a series of fundamental structural reforms. These measures, although mutually reinforcing, may be divided into three main areas: first, to reduce the scope and improve the efficiency of the public sector; second, to begin reorientation of the incentive structure in the urban, industrial sector towards exports and employment generation; and, third, to increase productivity and output in the agricultural sector.

## E. An Outline Strategy for Greater Efficiency

4.71 Five general guidelines are proposed to help the Government reorient its agricultural strategy towards a new period of growth. They deal with competitiveness, the roles of the public and private sector, pricing, and continuity. They are not panaceas nor do they represent a "first best" solution. Rather they indicate the general direction which policy could follow, while taking account of Panama's resource, economic, political and social realities.

4.72 Ensure competitiveness. Efficiency of resource use implies that costs of Panamanian products, regardless of whether primarily for export or for domestic consumption, should approach internationally competitive prices. Adjusting support prices downward for those commodities that are priced substantially above their CIF price is one way to increase pressure on the agricultural economy's competitiveness because such high price levels tend to lead to inefficient resource use. Similarly, abolition of government-fixed marketing and processing margins can lead to greater competitiveness as less efficient firms are forced to modernize or turn to other activities, while new firms may be encouraged to invest and thus increase competition.

4.73 Reduce the public sector's ongoing role to one of supporting functions where the private sector is efficient and there is adequate competition. Production of goods and services by a public sector agency in a market economy, where competitive conditions prevail, tends to become superfluous. Panama's experience has shown that it has often led to public spending and/or prevents the private sector from taking advantage of all possible economies of scale and markets; this, inter alia, also reduces the tax base.

4.73 In an ostensibly market-oriented economy like that of Panama, Government should resist regulating directly prices and supply. Rather, it should stimulate competition and investment by providing the essential physical and service infrastructure which the private sector is unable to provide. Prime examples include agricultural research and extension, where these functions cannot be effectively provided by the private sector, and price stabilization during seasonal market gluts. Such services can only be provided effectively by well-trained, experienced personnel.

4.75 Deregulate prices selectively. Most price controls and price supports in Panama's agricultural sector result in substantial interrelated market distortions that tend, in most cases, to result in windfall profits for a few relatively efficient producers rather than benefiting consumers. Ceteris paribus, price controls can be justified only to mitigate the social effects of an actual or impending scarcity of a mass consumption good or when monopoly or oligopoly exist. Panama's open economy in principle guarantees that mass scarcities cannot arise if Government does not interfere with the market. In practice, however, oligopolistic market structures (examples include fertilizers, animal feeds and poultry) impede the effectiveness of the competitive process thereby strengthening the perceived need for price controls. Oligopolistic market power will likely be eroded following completion of the changeover from quota to tariff protection that is currently underway. To carry this process further may require reforms to the legislative framework for commercial practices aimed at creating more competitive conditions. In the meantime, the Government may wish to proceed at once with decontrol of those commodities where domestic prices are currently depressed, or for which competitive import and marketing/processing channels already exist.

4.76        Assurance of Policy Continuity. A significant obstacle to productive private investment in Panama today is uncertainty about the continuity of any given economic policy measure or set of measures. The creation of a climate of certainty in this respect would do likely more for stimulating private investment than many incentive measures. Investors and entrepreneurs need to be assured of the "rules of the game" for periods of time that are long enough to promise a reasonable rate of return on the given investment. And the longer the time horizon of policy stability to which the investors can look forward, the more likelihood there is that they will invest for the long term. In the new democratic environment, legislative backing for the new policies could well provide enhanced stability.

**F. The Prospects for Industrial Exports**

5.35        There are obvious limits to the extent to which a government, especially in Panama, can stimulate export growth. In the absence of exchange rate adjustments and confronting severe fiscal constraints, it must concentrate on eliminating, sector by sector, detail by detail, the sources of inefficiency. It must also do everything possible to eliminate anti-export bias in the trade and tax systems. To assist competitiveness, exporters should be given free access to inputs at international prices and rebates of domestic taxes. This type of relief is widely recognized under GATT as an appropriate way of stimulating efficient export industries. This would mean making an exemption from the minimum tariff for exporters or adopting some other compensating mechanism, for example a drawback scheme.

5.36 The current system of granting CATs should be greatly simplified, while emphasizing their tax rebate nature so as not to violate GATT rules. They should be granted on the basis of FOB value, not local value added. They should be automatic, rather than discretionary, upon the presentation of evidence of exporting. If the authorities wish to use CATs to stimulate exports with higher percentages of local value added, then certain products should be declared ineligible or eligible only for a lower percentage of the FOB value. The system should be fully publicized and the rules for obtaining the benefits clarified and widely disseminated. These modifications would reduce the concentration of CATs among a few firms and products.

5.37 If Panama is to rely on growth through exports, it must, in addition to realizing the full potential of existing industries, diversify and deepen its manufactured export sector. An ongoing study of the industrial sector has identified a number of investment opportunities including the expansion of current existing industries (such as designer clothes, and assembly of electronic, medical and pharmaceutical products), and the establishment of new, "high technology" projects, including export projects related to the financial and shipping sectors. Given its geographical locations, its human resources, and its accessibility to high technology, Panama should be able to develop these new types of industries.

5.38 Experience in other developing countries which have adopted successful industrial export strategies indicates that a key role can be played by well designed promotional and support programs. These should pay particular attention to appropriate institutional support. This would, however, be largely ineffective without a strong, publicly stated political commitment to the radical policy changes required to adopt and export-oriented development strategy. Such public commitment, translated into clear and universal "rules of the game," is another common characteristic of successful exporting countries which is currently missing in Panama. Despite the beginnings of a change of direction, there is no private sector confidence in the coherence and continuity of policies. Until such confidence can be inculcated through unambiguous guidelines, the effectiveness of both technical and institutional improvements will be severely compromised.

5.39 One factor which may be holding back such an open commitment is the uncertainty inherent in basing growth prospects upon exports. Even if everything were done in Panama to promote and encourage exports, there is no guarantee that the strategy will succeed. Exporting is by nature an uncertain business. One difficulty already encountered is protectionism in the United States, the most promising market in the short and medium term.

5.40 A review of export-oriented industries<sup>9</sup> in the current pipeline shows clearly that they are predominantly "quota-refugees" from the Far East. The spot market cost in these countries of shares in the quotas imposed by the USA or by "voluntary restraint" is becoming higher than the cost of relocating part of the production of Panama or other countries so far without quota restrictions in the US market. Thanks to these peculiar commercial and policy circumstances, Panama's short term prospects for expanding labor-intensive assembly for exports is likely to be based on relocating Far Eastern industries producing clothing and other "sensitive products." The Panamanian Government has already experienced a US reaction to an increase beyond traditionally low levels of import from Panama of such products. Within months of the start of production of one of the Hong Kong owned maquila industries, the US Department of Commerce made the first of three calls for a reduction of imports from Panama to the USA of the sole products of the plant (women's woolen sweaters). According to Asian investors interested in the exploitation of Panama's commercial policy status with the USA, production levels will never reach proportions that will trigger protective measures. However, given the experience of the first producer of a sensitive product, this forecast appears unlikely to materialize. The future for such activities is therefore most uncertain and will depend on the dynamics of commercial diplomacy between the USA and Panama.

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<sup>9</sup> All such industries would be part of the so-called Maquila Program. (para. 5.20).

5.41 On the other hand, the new elements included in the Caribbean Basin Initiative (CBI)<sup>10</sup> could provide the basis for some interesting arrangements benefiting Panama's export sector. The possibility of consolidating value-added from two or more beneficiary countries plus Puerto Rico opens up the possibility of establishing so called twin-plant operations, a practice well-known in the US/Mexican border trade. For Panama, twin-plant operations with Puerto Rican industrialists could prove particularly interesting by locating the relatively more labor-intensive part of production in Panama (the Panamanian wage level is about one third of the Puerto Rican) while retaining the capital-intensive and technically more demanding operations in

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<sup>10</sup> While the General System of Preferences (GSP) in its present form expires at the end of 1985 and may or may not be extended, the CBI will not expire until the end of 1995. The most important difference between the two schemes concerns the value-added requirement for duty-free entry to the USA. Under the GSP, a minimum of 35 percent value-added in the beneficiary country is required for the good to be eligible for duty-free entry. Under the CBI, the value-added requirement remains 35 percent, but the requirement can be met by consolidating value-added in any of the CBI beneficiary countries, Puerto Rico and the US Virgin Islands. In addition, US-made components may comprise up to 15 percent of the 35 percent, leaving 20 percent value-added in beneficiary countries. The 35 percent domestic value-added requirement does not preclude the input itself from being produced using foreign components as long as the foreign components have undergone more than "simple combining or packaging operations." Consequently, the net local content of the eligible product can be much less than the 35 percent or 20 percent of US inputs used.

Puerto Rico. The use of the US dollar as legal tender and the absence of capital controls, make Panama attractive for such operations despite a high wage level relative to most other Caribbean or Central American locations.

5.42 In order to maximize the potential benefit from the CBI, Panama's promotional institutions, CNI and DICOMEX, should be improved. They should:

- familiarize themselves with the administrative aspects of exporting under the CBI;
- provide updated information to investors;
- emphasize in promotional campaigns which products, eligible for entry under the CBI, would be most welcome in Panama; and
- coordinate with promotion agencies elsewhere, particularly in Puerto Rico, to explore the possibilities for twin-plant operations.