
Central America Regional Transportation Study

Honduras

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HONDURAS

Table of Contents

EXECUTIVE SUMMARY	ES-1
LIMITATIONS	ES-2
Physical Limitations	ES-2
Institutional Limitations	ES-2
THE BASIC FOR RECOMMENDATIONS	ES-3
Physical Recommendations	ES-3
Institutional Recommendations	ES-4
CHAPTER 1: INTRODUCTION TO THE STUDY	1-1
SYNOPSIS	1-1
BACKGROUND	1-3
OUTLINE METHODOLOGY	1-7
Metrication	1-9
CHAPTER 2: GEOGRAPHY, CLIMATE, AND DEMOGRAPHICS	2-1
GEOGRAPHY	2-1
CLIMATE	2-2
POPULATION AND DEMOGRAPHICS	2-2
CHAPTER 3: THE EXPORT OF NON-TRADITIONAL PRODUCTS	
THE EXPORTS OF HONDURAS	3-1
Export Classification	3-1
Main Trading Partners	3-3
Export Commodities	3-4
Import Commodities	3-9
IDENTIFYING TRADITIONAL AND NON-TRADITIONAL PRODUCTS	3-10
Traditional Products	3-10
Non-Traditional Products	3-13

NON-TRADITIONAL AGRICULTURAL EXPORTS	3-16
FOOD AND LIVE ANIMALS	3-1f
RAW MATERIALS	3-27
NON-TRADITIONAL INDUSTRIAL EXPORTS	3-29
THE GENERAL BUSINESS CLIMATE	3-31

CHAPTER 4: NATIONAL TRANSPORTATION	4-1
ROAD TRANSPORTATION	4-1
The Highway System	4-4
The Trucking Industry	4-6
RAIL TRANSPORTATION	4-6
MARITIME TRANSPORTATION	4-6
The Ports	4-6
Port Tonnages	4-11
Shipping Lines	4-13
Costs of Marine Transportation	4-15
System Capacity	4-16
AIR TRANSPORTATION	4-27

CHAPTER 5: CONCLUSIONS & RECOMMENDATIONS	
INTRODUCTORY REVIEW	5-1
The Road System	5-2
The Rail System	5-15
Maritime Transport	5-16
Air Transport	5-29
The Role of the Government	5-31
The Role of the Producer	5-42
The Carriers' Role	5-47

CHAPTER 6: RECOMMENDATIONS	6-1
SPECIFIC RECOMMENDATIONS	6-1
The Cost Distortions	6-2
Transportation Infrastructure	6-2
Contract Law Amendments	6-4
Education Programs	6-8
APPENDIX A: ECONOMY AND TRADE	A-1
ECONOMIC OVERVIEW	A-1
NATIONAL ACCOUNTS	A-3
EMPLOYMENT	A-6
INFLATION	A-7
ECONOMIC ACTIVITIES	A-8
Agriculture, Forestry, and Fishing	A-8
Mining	A-10
Energy	A-10
Manufacturing	A-12
FINANCE	A-13
FOREIGN DEBT	A-14
FOREIGN TRADE AND PAYMENTS	A-14
Trade Balance	A-14
Main Trading Partners	A-16
Export Commodities	A-18
Import Commodities	A-22
APPENDIX B: ECONOMIC MODEL FOR ESTIMATING BENEFITS	B-1
APPENDIX C: COMPARATIVE PRICE SENSITIVITIES	C-1

HONDURAS

List of Tables

3.1	Values of Exports & Imports	3-2
3.2	Exports 1981-85	3-3
3.3	Exports, 1985	3-5
3.4	Non-Traditional Exports	3-14
3.5	Export Profile, 1985	3-15
3.6	Exports of Animals & Animal Products	3-17
3.7	Exports of Shrimps & Lobsters	3-18
3.8	Exports of Cereals & Cereal Products	3-19
3.9	Exports of Fresh Fruit & Vegetables	3-19
3.10	Exports of Fruits & Vegetables	3-20
3.11	Exports of Processed Food	3-22
3.12	Exports of Sugar & Sugar Products	3-23
3.13	Exports of Coffee & Cocoa	3-24
3.14	Exports of Miscellaneous Food Preparations	3-25
3.15	Exports of Tobacco Products	3-26
3.16	Exports of Crude Materials	3-27
3.17	Exports of Mineral Fuels Etc.	3-28
3.18	Exports of Oils, Fats, Waxes	3-29
3.19	Exports of Chemicals	3-29
3.20	Exports of Basic Manufactured Goods	3-29
3.21	Exports of Other Manufactured Goods	3-30
4.1	Exports of Honduras, Distribution by Ports	4-12
4.2	Container Movements	4-17
4.3	1985 Imports	4-20
4.4	1985 Exports	4-21
4.5	Air Freight by Airport, 1985	4-23

5.1	1985 World Freight Vessel Demand/Supply Situation	5-19
5.2	Typical Costs of Moving a 20-foot Container	5-21
A.1	Real Gross Domestic Product	A-4
A.2	Real Gross National Product	A-6
A.3	Percentage Relative Increases in Price Indices	A-7
A.4	Agricultural Production	A-8
B.1	Traditional/Non-Traditional Exports	B-2
B.2	Typical Export Cost Allocation	B-4
B.3	Typical Export Transport Profile	B-5
B.4	Typical Export Total Cost Profile	B-7
C.2	Comparative Unit Costs of Exports	C-2

CENTRAL AMERICA TRANSPORTATION STUDY

HONDURAS

EXECUTIVE SUMMARY

This report evaluates transportation in Honduras 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 Honduras and in the United States showed that many factors, both physical and institutional, limit the transportation and export of non-traditional products through the relatively high cost of transportation.

LIMITATIONS

Physical Limitations

The network of main roads--though excellent in 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 rail system--localized around San Pedro Sula--serves the banana exporter well, but has little to offer other exports.

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. The ports are placed in a difficult situation by the mandate to cover all port costs by user charges. Shipping lines incur needless cost when port tariffs emphasize vessel type, not cargo volumes. Shippers by truck pay for "vigilancia" (guards to carry customs papers). Because more refrigerated containers leave Honduras with maritime exports than return with imports, shipping lines import empty containers at extra cost. Trucks run empty to make pickups but do not consolidate partial loads from producers; coordination can cut costs.

THE BASIS FOR RECOMMENDATIONS

The report records numerous suggestions from persons interviewed, as well as programs devised by the study team itself, and should be viewed as a storehouse of possibilities. Prioritized recommendations, however, were made on a very specific basis: appropriateness for short-term actions and appropriateness for implementation on a national level as opposed to the regional level. Actions that might be best left for implementation by groups other than USAID/ROCAP are not omitted from the prioritized recommendations as these may attract the attention of groups other than USAID.

Relative costs and benefits were estimated for each recommendation, and recommendations were ranked within the two categories, physical and institutional. Relative benefits are estimated as the percentage by which each action can increase total exports of non-traditional products.

PHYSICAL RECOMMENDATIONS

1. Review of Road Repair and Maintenance

Approximate cost: \$300,000 (study only)

Time frame: studies 1988

implementation & procurement 1989-1994

An energetic program of rural road rehabilitation and maintenance to keep roads passable in all weather and to reduce damage to trucks.

2. Container Freight Stations

Approximate cost: \$500,000 each

Time frame: location, design etc. 1988
construction 1989-1992

Construct a network of container freight stations in key locations to facilitate the consolidation of cargo for export and the unpacking of containers for distribution.

3. Refrigerated Warehouses

Approximate cost: \$1.4 million each

Time frame: study 1988/1989
construction 1989-1993

Construct public refrigerated warehouses to facilitate the consolidation of perishable cargo.

INSTITUTIONAL RECOMMENDATIONS

1. Contract Law Amendments

Approximate cost: not known

Time frame: study 1988-1990
immediate programs 1990-1995
long-term programs 1990-on

- o Introduce changes to the current system of contract law to enable contracts to be easily entered into and for their disputes to be quickly, cheaply, and consistently resolved.

- o Introduce contracts of carriage to enable a shipper and a carrier to enter into definite and easily enforceable agreements regarding date, quantity, and cost. By allowing carriers to plan for guaranteed volumes and schedules, such contracts would reduce the cost to carriers and hence reduce freight charges to producers.
- o Form exporters' groups to negotiate contracts; determine the best legal structure so that groups can bind their members to the volumes and schedules that they have set out in contracts with carriers.
- o Introduce appropriate legislation to encourage the operation of transport brokers.

2. Education Programs

Approximate costs: \$1 million total annual budget

Time frame: 1988 on

- o Introduce education programs to help Honduras nationals involved in the export of non-traditional products to produce, transport, and market these products more effectively.
 - Training for truck drivers, including awareness of the special needs of easily damaged products.
 - Diesel school for mechanics, including ways to verify the effectiveness of truck maintenance programs.
 - Training for managers of trucking companies, including ways to reduce empty trips.

- Classes in group problem-solving techniques.
Graduates of such classes would be a seed group of nationals trained in group problem-solving who could improve the methods and focus of meetings among producers, carriers, and government officials.

3. Overseas Representation

Approximate cost: \$300,000 per year

- o Place exporters' representatives in Miami to verify the condition of cargo on arrival and seek potential buyers (especially for perishable products).
4. Revise the port tariff structure to be compatible with other ports in the region, using assistance from government revenues when necessary.
 5. Reduce port charges to be commensurate with the services offered. This would require legislation enabling the governments to adopt some port expenses as being in the national interest.
 6. Correct any specific abuses in port charges. The National Port Authorities should appoint an experienced port employee to investigate claims of incorrect applications of published port tariffs; a transportation users's group may also employ its own claims inspector.
 7. Replace the "vigilancia" charge by an acceptable system of customs seal.
 8. Revoke the 60-day limitation on bringing in container chassis and trailers.

9. Exempt the trucking industry from the current high import duties on spare parts for trucks operated outside the "cooperative" system.

These recommendations results from an in-depth look at problems facing the exporters of non-traditional products and an attempt to rank remedies by their relative costs and benefits. The analysis convinced those preparing this study that the problems of transportation and exports were deep-seated, and that simple and quick remedies were non-existent. It was also found that while there was a definite need for capital improvements to the transportation infrastructure--investments that would only be justified at the national level of costs and benefits--the low total value associated with non-traditional exports resulted in little justification for major capital projects. 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.

HONDURAS

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), identified 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: Honduras. It contains a detailed review of the economic, institutional, physical, and operational aspects 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 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 the United States and in Central America have recognized that the recent economic decline in the region has deep roots and that 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 the 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% 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 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 identified 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 related to the transport of non-traditional commodities;

Export promotion councils;

Shippers' councils;

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

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

- o Identification of both institutional 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 that should be undertaken to improve the quality of transport service and to 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 US 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 for the export product to grow, 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 reviews, 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 geography, climate, and demographics
- o the export of non-traditional products
- o national transportation
- o conclusions and recommendations
- o economy and trade

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 weights and measures has been adopted for this series of reports. Only where industry standards are normally quoted in pound-foot units (e.g. 20-foot containers) is this alternative system used. Thus tons and metric tons refer to 1,000 kg throughout.

HONDURAS

CHAPTER 2

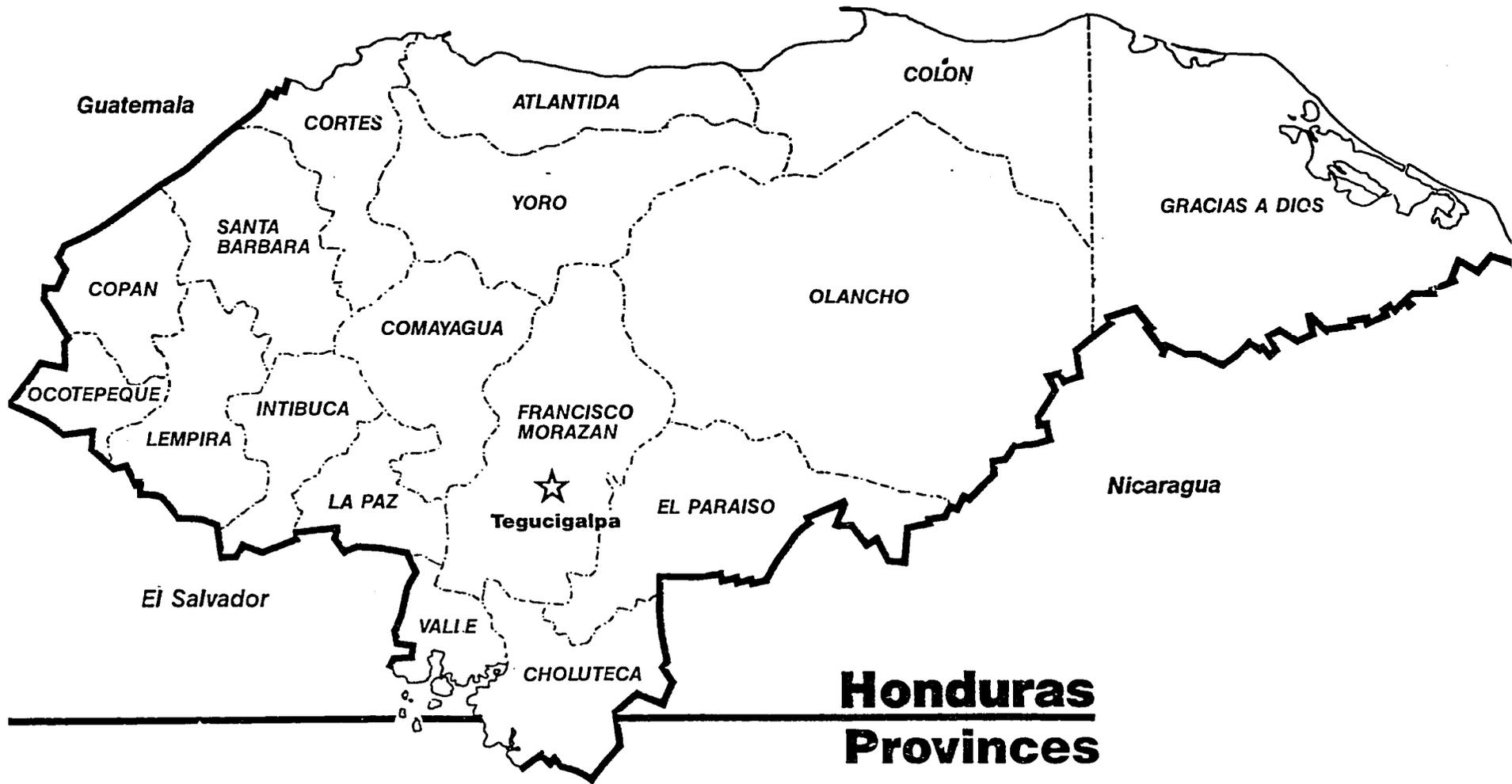
GEOGRAPHY, CLIMATE, AND DEMOGRAPHICS

GEOGRAPHY

Honduras is one of the largest and most rugged countries in Central America. With a land area of 112,088 square km, Honduras is second in size only to Nicaragua, and is approximately 672 km east to west and about half that (320 km) north to south. Bordered by Nicaragua, Guatemala, and El Salvador, it has opportunities for trade by both land and sea. The frontier with Nicaragua is the longest (680 km), followed by those with El Salvador (265 km) and Guatemala (210 km). Its Caribbean coast of 640 km is five times longer than the 124-km Pacific coast on the Gulf of Fonseca.

Much of Honduras is mountainous, leaving only a very narrow coastal plain, particularly on the Pacific side. Of the total land area, only 22% is under cultivation, and another 45% is forest.

Major agricultural development occurs primarily in the highland valleys, and in the banana-growing northern littoral and associated river valleys. There are also opportunities for development elsewhere along the Caribbean coastal plains and river



Guatemala

CORTES

ATLANTIDA

COLÓN

GRACIAS A DIOS

YORO

SANTA
BARBARA

OLANCHO

COPAN

COMAYAGUA

OCOTEPEQUE

INTIBUCA

FRANCISCO
MORAZAN

LEMPIRA

LA PAZ

★
Tegucigalpa

EL PARAISO

Nicaragua

El Salvador

VALLE

CHOLUTECA

Honduras Provinces

valleys. Of these rivers, the Ulúa, in the west, is important both as a navigable river and as the center of a lowland area extending south from the Caribbean coast through the departments of Santa Barbara and Intibuca into what is otherwise a mountainous region. Its valley is, in essence, further extended southward across the country by a gash through the highlands to the Gulf of Fonseca, on the Pacific.

CLIMATE

Climate in Honduras reflects altitude, with the coasts tropical and the highlands temperate, as is common throughout Central America. The capital, Tegucigalpa, is in the highlands and ranges in temperatures from 4-27°C in February to 12-33°C in May, averaging 19°C.

Rain can seriously impede transportation, particularly on the littoral during the rainy season (roughly from May to November, inclusive). The northwest coast, for example, receives 3,150 mm annually--almost three times the annual rainfall at the capital (1,065 mm). Hurricanes have been common in the past, causing great damage, with a particularly damaging hurricane in September 1974.

POPULATION AND DEMOGRAPHICS

In 1984, the population of Honduras was approximately 4.1 million--approximately 90% mestizo, with a small percentage of pure-blooded Indians and less than 1% of pure Spanish ancestry.

The economically active population, however, was estimated at only slightly over 1 million. Nearly half the population is illiterate (47.5% in 1983) despite nominal compulsory education--there being a shortage of schools in rural areas, where most of the population lives (over 60%). The population grows by approximately 3.2% each year.

Two main cities are each the centers of wider areas of relatively dense populations: Tegucigalpa in the southwest highlands (department of Francisco Morazán), with over a half million population in the city itself, and the somewhat smaller San Pedro Sula on the northern (Atlantic) littoral in the department of Cortés. Near Tegucigalpa, but to the south of it, is Choluteca, with some 52,000 inhabitants, and there are three cities in the 38,000-60,000 range in the Atlantic littoral, in the region dominated by San Pedro Sula: La Ceiba, El Progreso, and Puerto Cortés.

This Atlantic littoral, with its extension into the Sula valley, was late in development. It was largely ignored by the original Spanish settlement but was developed as a banana-growing region during the 19th century by American companies. It is now the country's second largest concentration of population and the most important agricultural area, shipping half the country's exports and taking two-thirds of the country's imports.

Mainland Honduras can be divided into the following groups of departments:

- o The western departments (bordering Guatemala or El Salvador)
 - Copán
 - Ocotepeque
 - Santa Barbara
 - Lempira

- o The Atlantic departments (on or near the Caribbean)
 - Cortés
 - Atlantida
 - Yoro
 - Colón

- o The central departments
 - Comayagua
 - Intibuca
 - La Paz
 - Francisco Morazán
 - El Paraiso

- o The Pacific Coast departments
 - Valle
 - Choluteca

- o The eastern departments
 - Olancho (bordering Nicaragua)
 - Gracias a Dios (touching both the Caribbean and Nicaragua).

Off the Atlantic coast are the Islas de la Bahía and the Islas Santanilla.

HONDURAS

CHAPTER 3

THE EXPORT OF NON-TRADITIONAL PRODUCTS

THE EXPORTS OF HONDURAS

Export Classification

Overview: Bananas and Coffee Dominate. The principal exports of Honduras are bananas and coffee, both of which have been depressed since 1981 due to weak commodity prices. The USA is by far the most important trading partner, accounting for 50 percent of Honduras' total trade. West Germany and Japan are the next largest export markets for Honduras, reflecting their demand for coffee and bananas. The country's policy of developing hydroelectric power to replace oil imports has reduced Honduran vulnerability to oil price volatility.

Lack of Foreign Exchange. Since 1981 the availability of foreign exchange for imports has been increasingly restricted. In an attempt to put a stop to the flight of foreign exchange, in April of 1981 the government imposed a 10% import duty on products coming from countries with which Honduras had free trade agreements. These countries were mostly those of the Central American Common Market. This measure was insufficient to put a brake on imports and stop the flight of capital, so in November of the same year strict exchange controls were imposed and the number



Honduras
Principal
Economic
Activities

of import permits was limited. In addition to other effects, these measures served to reduce by 24% the value of imports in 1982, but this reduction also triggered off a serious shortage of imported consumer goods, and brought some parts of industry to a virtual standstill. In 1982 a special 20 percent tax was applied to all imports (except oil, agricultural inputs, and certain essential consumer goods). In May 1982 imports were classified into six categories in accordance with their degree of importance, and import permits for all classes of goods were issued only after long delays. In November 1983 importers of certain categories of goods were permitted to use foreign exchange obtained outside the banking system. The values of Honduran exports and imports for 1981-1985 are shown in Table 3.1:

Table 3.1
Honduras
Values of Exports & Imports
(millions of lempiras)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Total Exports FOB	1,507.2	1,309.2	1,343.6	1471.6	1,560.1
% change	-13%	+3%	+9%	+6%	
Total Imports CIF	1,920.0	1,423.8	1,605.2	1,791.0	1921.7
% change	-26%	+13%	+12%	+7%	
Balance of Trade	-412.8	-114.6	-261.6	-319.4	-361.6
% change	+72%	-128%	-22%	-13%	

Conversion rate: \$1 = Lp2

Source: Central Bank of Honduras

Main Trading Partners

By far the most important Honduran trading partner is the USA. Throughout the 1980s the USA accounted for between 48 to 55 percent of the value of Honduran exports, and between 40 to 50 percent of her imports. Japan maintained a steady balance of about 6 percent of both imports and exports during the same period.

Table 3.2 of percentage distribution by value shows that the pattern of exports has changed very little over the last few years, with America dominating and Europe following at a distance. Of the European partners, the most active is West Germany, which accounts for a quarter of all trade with the European Economic Community.

Table 3.2
Honduras
Exports 1981-85
(Percentage Distribution by Value)

<u>Region</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
USA	54	52	54	52	48
Central America	9	8	9	6	3
Caribbean	3	3	4	3	3
Rest of America	2	3	1	2	3
Europe--EEC	22	24	22	23	30
Rest of Europe	2	2	1	4	4
Japan	6	6	6	8	7
Rest of World	2	1	3	2	2
TOTAL	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

Source: Central Bank of Honduras

Export Commodities

Limited Products, Limited Trading Partners. In 1985 Honduras exported 46.5 million 40-lb boxes of bananas, valued at \$273.5 million. This one item represented 35 percent of all exports in that year. In the same year 1.2 million 60-kg sacks of coffee were exported, valued at \$185.2 million. The coffee and the bananas together accounted for 59 percent of the country's exports for that year.

Table 3.3 lists the main exports of 1985, together with their values and tonnages. All transportation modes are included in the analysis.

It should be emphasized that not only does Honduras have a narrow export base--the major exports consist of two basic products--but it has also developed a very limited group of trading partners. This is exemplified by the fact that what is imported by the USA in just bananas and coffee alone accounts for 28% of the country's total export value. The next trading partner in level of importance, West Germany, had only 6% of total exports represented by these two items. Changes in tastes in the USA markets for these two items alone could be devastating for the economy of Honduras.

Table 3.3
Honduras
Exports, 1985
Volume (tons) and Value (millions of lempiras)

<u>Item</u>	<u>Volume</u>		<u>Value (FOB)</u>	
Bananas	846,182	51%	547.0	35%
Coffee	71,520	4%	370.4	24%
Wood	200,000	12%	68.2	4%
Frozen Meat	8,643	0.5%	36.3	2%
Silver	78	0	32.0	2%
Lead	18,952	1%	14.4	1%
Zinc	47,485	3%	79.4	5%
Shrimps/Lobster	3,473	0.2%	81.9	5%
Sugar	119,292	7%	42.9	3%
Tobacco	2,319	0.1%	17.3	1%
Cotton	5,034	0.3%	13.6	1%
Others	349,987	20.9%	256.7	17%
	<u>1,672,965*</u>	<u>100%</u>	<u>1,560.1</u>	<u>100%</u>

Sources: Various, Including Central Bank and National Port Authority

* Includes Exports by Land, Sea, and Air

Bananas. The development of banana sales has been stimulated by a relative improvement in international prices, such that the level of exports has been maintained at between 41 and 47 million boxes a year. The only exception was 1983, when production and exports were reduced because of adverse weather. It is worth noting that the volume exported to the USA in 1980 was about 72 percent of the total, while in 1985 this had been reduced to 63 percent. This redistribution represents a switch in the marketing policies of the major fruit companies, reducing the national dependence on the markets of the major trading partner.

Special mention should be made of the recent actions on the part of the government to assist the banana industry, which include:

- o for those companies whose plantations were affected by the hurricane of March 1983, a 5-year deferment in the payment of the 0.20 Lempira per box export duty.
- o a 6-month deferment on the export duty for the Standard Fruit Company
- o a phased reduction in the duty charged to banana ships from Lp0.015 to Lp0.0025 per pound for exports greater than 40 million boxes.

Coffee. Coffee sales over the last few years show that, while the value of the exports has fluctuated according to prevailing prices, the volume exported has remained relatively stable. The USA and Japan are the major buyers of Honduran coffee, accounting for 28% and 21% respectively, with Germany (15%), Holland (8%), and Belgium (4%) the next most important group.

Honduras was admitted in 1980 into the quota system operated by the International Coffee Organization (ICO). The quota system is based on each country's production capacity, and membership of this group includes being able to take advantage of the marketing organization that has been set up. Honduras' export quota was reduced from 1.4 million quintals in 1980 to 1.2 million quintals in 1985.

Wood. The value of overseas sales of wood during the period 1981-85 fell 6 percent per year from Lp86.3 to Lp68.2. This reflected problems such as:

- o a slower than expected increase in the international market prices for this product
- o a reduction in the quality of wood available for export from Honduras
- o problems related to the drying of the wood, and shortages of saleable sizes and grades
- o a partial loss of the Caribbean market resulting from new health regulations, conditions of payment, prices, and above all competition from the USA and Canada.

Meat. The period 1980 to 1985 experienced a 21 percent fall in Honduran exports of meat, resulting from the deflationary spiral that has affected the meat industry. The problems have arisen from the effects of an attempt to reduce the number of animals being slaughtered to correspond more with the reduced numbers being offered. This reduction has been contributed to by the sale of live cattle to other countries of Central America, which itself has been brought about from a general over-supply of cattle in the markets of North America--Honduras' main buyer.

Mining. The mining and export of minerals has been cut back to leave only silver, lead, and zinc as actively exploited. The fluctuations in the production of the mining sector during 1980 to 1985 follow closely the international price movements for these commodities. Silver, for example, fell from \$20.57 an ounce in 1980 to \$6.14 an ounce in 1985. Of similar importance was the gradual falloff in yield, a process that had been taking place since the start of mining operations in 1948. Negotiations have been taking place between the mine operators, Rosario Resources Corporation, and the Honduran government in an effort to renegotiate such items as royalties, and so put operations on a sounder financial footing. Recent increases in the market price of silver have led to renewed activity in this sector.

Sugar. Honduran sugar production has fallen as a direct result of the world over-supply leading to a fall in price, and the steady reduction by the USA in its import quotas. Overseas rates of sugar fell from Lp93.1 million in 1981 to Lp42.9 million in 1985.

Cotton. Over the last few years world cotton production has suffered a considerable cutback, partly as a result of greater use of synthetic fibers, and partly as a result of the increasing participation of Red China in world markets. In the case of Honduras, the rapid and continuing reduction in export volume can be traced back to 1981, virtually paralleling the fall in world cotton prices. In 1985, the value of cotton exports was Lp13.6 million, or approximately half of the value exported in 1980. Since the area of cultivation in Honduras has been drastically reduced, there is unlikely to be any short-term recovery.

Over the last few years Honduras has become a net importer of cotton, with 458 tons being purchased from the USA and other Central American countries in 1985.

Import Commodities

The main imports into Honduras are basic raw materials, fuels, capital goods, and durable and non-durable consumer goods. Of these, the major single item is petroleum (crude oil and derivatives), which amounted to \$179.4 million in 1985 and accounted for 20 percent of total imports by value, and about 75 percent by weight. The next most bulky item after petroleum is wheat from the USA. In 1985 Honduras received about 92,300 tons of this commodity.

The remaining import items include tires, farm tractors, vehicular spare parts, pumps, radios, TV sets, and all classes of transportation vehicles. Raw materials for manufacture include textiles, chemicals, plastics, and iron and steel. No single item from this group is significantly large in terms of either value or volume.

IDENTIFYING TRADITIONAL AND NON-TRADITIONAL PRODUCTS

Traditional Products

As with many of the other countries of Central America, Honduras has an official list of what are considered to be traditional exports. The Law for Export Promotion (Ley de Fomento de las Exportaciones) lists the following as being "traditional exports":

- bananas
- coffee
- timber
- meat, refrigerated
- silver
- lead
- zinc
- shrimps and lobsters
- cotton
- unrefined sugar
- tobacco
- cattle, ordinary breeds
- hides and pelts
- non-ferrous scrap metal
- petroleum derivatives

While the above may, indeed, be traditional exports from Honduras, in the sense that the country has been involved in the export of these items for a considerable time, in the mid-1980s it could not be claimed that all these products were contributing to the national economy. Some of the items were, in fact, no longer produced or exported.

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 comprise:

- o those exports that had reached a level of sophistication and volume that enabled them to be managed with economic efficiency, as distinct from those exports that were small in volume and were uncoordinated
- o those exports whose prices (and quantities) were under the control of international cartels
- o those exports that were the subject of quota restrictions

The rationale behind the definition was that exports defined as being traditional 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. The producers and exporters of traditional products were not always free to fix their own prices and produce quantities according to demand.

On the other hand, exporters of what are defined as non-traditional might be expected to be experiencing correctable difficulties in their use of transportation facilities, they would also be freer to establish their own prices in the market, and they could increase their exports in accordance with increases in demand. In short, non-traditional exports could be expected to benefit from programs of transportation improvements.

The following is a list of the major export items, together with the value of each in 1985 in US\$:

<u>Item</u>	<u>Value US\$</u> (thousands)
Bananas	273.5
Coffee	185
Shrimps & Lobsters	41
Zinc	39.7
Wood	34
Sugar, unrefined	21.5
Meat, fresh, refrigerated	18.2
Silver	16
Pineapples	11.5
Palm Oil	9.5
Tobacco	8.7
Lead	7.2
Cotton	6.8
Petroleum Derivatives	6
Conserved Fruit	5.8
Wood Manufactures	5.7
Cigarettes/Cigars	4.5

Using the definition mentioned earlier for traditional products--large volumes, pricing cartels, quotas--we would have to define the traditional products from this list as

Bananas
Coffee
Zinc
Sugar
Meat
Silver
Lead
Cotton
Petroleum Derivatives

On the basis of this division, in 1985 the value of traditional product exports was \$577.25 million, or 74% of total exports, and non-traditional exports was valued at \$202.8 million, or 26% of the total.

Non-Traditional Products

Non-traditional products are all the exports that remain once the traditional exports have been removed. Clearly, these run into several hundred different traded items, and so aggregation was necessary to facilitate the survey interviewing and subsequent analysis. The SITC (Standard International Trade Classification) basic (one digit) categories were used to establish a preliminary grouping, with subsequent refinement being used where needed. The SITC one-digit categories are:

- 0 Food and Live Animals
- 1 Beverages and Tobacco
- 2 Crude Materials Excluding Fuels
- 3 Mineral Fuels, etc.
- 4 Animal and Vegetable Oils and Fats
- 5 Chemicals
- 6 Basic Manufactures
- 7 Machines and Transportation Equipment
- 8 Miscellaneous Manufactured Goods
- 9 Goods Not Classified by Kind

It should also be pointed out that treatment on an aggregated basis was also necessary because individual export items did not appear in the national statistics every year. It was clear from a study of the export figures, and it was confirmed in subsequent interviews, that factors combined differently each year to make

export products either profitable or not. Exporters would thus be active in years of economic returns, and would be inactive in years where their product was not competitive overseas. For most exporters of non-traditional products there was little attempt at planning and getting into effect a program for increasing exports, it being considered that the future was far too uncertain for them to make such a commitment.

It should be noted that while the total list of products analyzed in this study included 54 separate export items, a significant number of items were exported but were not included in the 54 because their individual contributions to exports were small. When these were aggregated, however, we were left with the following values not accounted for (Table 3.4):

Table 3.4
Honduras
Non-Traditional Exports
Value (US\$) of Small Items

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Value	44.4	27.4	27.0	23.3	43.8
% of Total Exports	32%	25%	23%	20%	36%

Thus every year Honduras exports a whole range of products whose individual values are small, but in aggregate account for between one fifth and one third of all non-traditional exports. Such a proliferation of small exporters makes analysis by industrial sector difficult, since trends can only be determined when there is enough activity within the sector to ensure some continuity. The figures imply that producers export one year and don't export the next year, depending on prevailing conditions--there is basically an absence within this group of a commitment to export, and it is serious because the group is so large.

Honduras' profile of exports, both traditional and non-traditional, is shown in Table 3.5.

Table 3.5
Honduras
Export Profile, 1985

<u>SITC Code</u>	<u>Description</u>	<u>Value US\$ Millions</u>		<u>Total</u>
		<u>Tradi- tional</u>	<u>Non-Tra- ditional**</u>	
0	Food & Animals	500.4	100.8	601.2
1	Beverage, Tobacco		17.1	17.1
2	Crude Materials	69.7	52.8	122.5
3	Mineral Fuels	6.0	0	6.0
4	Animal & Veg. Oils		11.9	11.9
5	Chemicals		5.1	5.1
6	Basic Manufactures		13.1	13.1
7	Machinery Etc.		0	0
8	Misc. Manufactures		5.3	5.3
	Totals*	576.1	206.1	782.2
	Percentage	74	26	100

* Totals may contain rounding errors

** Contains redistribution of small items

Source: Central Bank of Honduras, aggregation by PBI.

The export profile shown in Table 3.5 reveals that traditional products account for 74% of exports, and non-traditional account for 26%. Taking SITC codes 0 to 4 as representing agricultural products, and codes 5 to 8 as manufactured products gives agricultural non-traditional exports having a value of \$182.6 million, or 89% of all non-traditional exports. The \$23.5 million contribution of the manufacturing sector, or 11%, highlights the country's heavy dependence on the agricultural sector and its need to import a wide range of manufactured goods.

NON-TRADITIONAL AGRICULTURAL EXPORTS

We modified the SITC category of food and live animals by excluding the traditional products of bananas, coffee, and all fresh meat except seafood. We also introduced added distinctions to allow for the different transportation requirements of fresh, processed or semi-processed foods. It makes a considerable difference to both economy and transportation if the food is processed, semi-processed, or fresh. Fresh food is normally characterized by a short post-harvest life, needing cooling or other means of preservation, and needing a rapid delivery to the final consumer. Semi-processed food includes frozen and dried food, where the post-harvest life is longer than for fresh food, and where the transport system need not be so rapid. Processed food includes canned and bottled food, where the processing permits the products to be kept for considerable periods without deteriorating, and where the length of the journey to the consumer does not necessarily affect the quality of the product. These three categories of food have different requirements for a transportation system and were therefore treated separately in the survey and analysis.

0100 Series--Animal & Animal Products

This group is dominated, and is almost exclusively represented by, the traditional export of refrigerated meat (Table 3.6).

Table 3.6
Honduras
Exports of Animals & Animal Products
(US\$ millions)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Refrigerated Meat	46.3	33.9	31.3	21.2	18.1
Live Cattle	0	0	0	0.4	0.2

Live cattle are sold to neighboring countries, mostly as a means of disposing of surplus heads resulting from the fall in demand for meat.

0200 Series--Dairy Products

No exports were registered in this category.

0300 Series--Fish and Sea Food

Much interest has been shown in Honduras in the establishment of shrimp farms on the Pacific coast. The success of these, and the general promotion of shrimp and lobster exports, has led to the noticeable increases since 1983 (Table 3.7).

Table 3.7
Honduras
Exports of Shrimps & Lobsters
 (US\$ million)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Value US\$	26.25	28.0	36.0	49.8	41.0
Weight Tons	3,645	3,600	4,266	3,944	4,473
Unit Value \$/Ton	7,202	7,780	8,440	12,630	9,170

Under ideal conditions, better margins are secured when the product is delivered fresh, by air. In the case of Honduras, the shortage of reliable services for perishable air cargo resulted in more than 70%, or 3,200 tons, going in refrigerated containers via Puerto Cortés. Where the shrimp were being farmed, sufficient quantities could be planned to make chartered aircraft an economical solution.

It was considered by those interviewed that, with adequate airfreight service and refrigerated facilities available at Tegucigalpa airport, exports could be expected to double.

There is not enough processing of fish for it to register as an export item.

0400 Series--Cereals and Cereal Products

While a small amount of cereals and cereal products goes to North and Central America, the major part of this export goes by sea to Africa and the Middle East (Table 3.8).

46

Table 3.8
Honduras
Exports of Cereals & Cereal Products
(US\$ millions)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Maize	0.1	1.4	0.6	1.4	3.9
Cereals, Prepared	1.1	1.0	0.8	0	0

With a unit value, fob, of \$187/ton, bulk transport of this product is the only way that it could be made competitive in world markets.

Note that in going from Honduras to Africa the handling systems are entirely compatible: the maize is bagged in Honduras and the unloaded bags are cheaply distributed with labor-intensive methods in the countries of destination.

0500 Series--Fruits and Vegetables

The category of fresh fruit and vegetables constituted the largest single group of non-traditional products, and as such was the subject of considerable interest in Honduras (Table 3.9).

Table 3.9
Honduras
Exports of Fresh Fruit & Vegetables
FOB Value (US\$ millions)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Pineapples	7.1	8.6	12.3	14.1	12.5
Grapefruit	3.4	2.6	3.6	3.1	2.6
Melons	0.5	0.7	1.4	1.3	1.8
Plaintains	0.1	0.1	0.1	0.2	1.5
Coconuts	0.9	0.5	0.5	0.5	0.4
Kidney beans	2.15	1.7	1.6	1.6	0.4
TOTAL	14.15	14.2	19.5	20.8	19.2

47

There is not a developed production of high-value fruits and vegetables, so the majority of these exports--excepting kidney beans--went in refrigerated containers by sea, and not by air freight.

The recent history of this category shows that export values have experienced a steadily increasing trend, but closer analysis reveals that the increases are mostly attributable to increased pineapple exports. As with many of the other countries of Central America, pineapple exports have been promoted by the major fruit companies as a complement to banana exports. Thus there is only a part of this total that is represented by the independent exporter, as the table for 1985 exports shows (Table 3.10):

Table 3.10
Honduras
Exports of Fruits & Vegetables
(Unit Values)

	<u>Total Volume</u> (Tons)	<u>Value</u> \$million	<u>Unit Value</u> \$/ton
Pineapples	30,844	12.5	405
Grapefruit	9,975	2.6	261
Melons	5,283	1.8	341
Plaintains	12,019	1.5	125
Coconuts	1,543	0.4	259
Kidney beans	<u>662</u>	<u>0.4</u>	<u>604</u>
TOTAL	60,326	19.2	318

A significant part of the total of pineapples and plaintains leave the country in the same refrigerated vessels that are used for bananas, and so the non-traditional, or small exporter requires refrigerated transportation mainly for melons and grapefruit. This would give a total demand for approximately 700 40-foot refrigerated containers per year, with a considerable peak of demand during December through March.

Representatives of this group had as their major complaints the following:

- o critical shortage of refrigerated containers
- o inconvenient ship loading days
- o lack of choice of destination
- o the length of the sailing time from Honduras to the USA
- o the high cost of transportation

It should be noted that not all vessels that called at the ports of Honduras accepted perishable cargo, and so the exporters in this group were dealing with a small number of shipping companies. Since there were no refrigerated storage facilities, it was essential for any harvest to be driven immediately to the port and loaded on the vessels, but without daily sailings a wait of some days was almost inevitable.

The liners that called at Puerto Cortés and accepted refrigerated containers normally called at other ports before reaching the USA. An average figure of 25 or 35 containers per visit was customary for these companies, so calls elsewhere were unavoidable and the sailing times were consequently long.

It was universally considered that the cost of transportation was high, brought about by the virtual monopoly of the refrigerated containers and the operation of conference line vessels. It was also reported that trucking was expensive because of the unionization of the drivers and because of the high cost of imported spare parts. There was a reluctance to entrust any produce to the railroad because there was a fear that the shipment would be delayed in favor of a demand from the banana exporters--the main users of the rail system.

Of particular interest to this group was the matter of insurance: very few national carriers had insurance for the shipper's consignment, at least not at a reasonable price, while the foreign shipping companies did include insurance. This was an issue that caused considerable friction between the two carrier groups.

The recent history of exports of processed foods shows a healthy increase in the years 1981 to 1985 (Table 3.11). Of note is the fact that, in 1985, processed food represented 30% of the value of fruit and vegetable exports, yet only 18% of the tonnage.

Table 3.11
Honduras
Exports of Processed Food

	<u>FOB Values (US\$ millions)</u>				
	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Preserved Fruit	5.4	4.7	3.9	5.0	5.8
Fruit Extracts	<u>0</u>	<u>0.8</u>	<u>0.7</u>	<u>1.4</u>	<u>2.4</u>
	5.4	5.5	4.6	6.4	8.2
	<u>1985 Tonnages</u>				
	<u>Tons</u>	<u>Value</u>	<u>UAH Value</u>		
Preserved Fruit	10,778	\$5.8m	\$ 538/ton		
Fruit Extracts	2,358	\$2.4	\$1,018/ton		

While most of the products in this category--juices, pulps, extracts, preserves--went to markets in the USA, a significant one third went to Europe.

25

A major problem and limitation for this group in general was the high cost of containers: cans and glass bottles were mostly imported from elsewhere in the region, while plastic containers were not always suitable. There was considered to be considerable potential within this group as the range of exportable tropical produce increased when processing was used due to easier FDA requirements. With the exception of some fresh juices, no refrigeration was required in the transport of these products.

0600 Series--Sugar and Sugar Products

This sector is dominated by the traditional export of unrefined sugar (Table 3.12)

Table 3.12
Honduras
Exports of Sugar & Sugar Products
(FOB Value, US\$ millions)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Unrefined Sugar	46.5	21.6	27.8	25.6	21.4
Molasses, inedible	3.8	2.7	2.5	3.1	2.2
Honey	0.6	0.9	0.6	0.5	0.3

The export of molasses follows the fortunes of the sugar industry in general, experiencing a similar decline in export value. Of the 40,000 tons of molasses exported in 1985, two thirds went by sea to North America, and one third to South America.

Honey producers have been actively trying to promote their product overseas, and may have secured better markets for their product from 1986 onwards. As an example, two Honduran exporters ship two 40-foot. containers (with 400 55-gallon drums) monthly of light amber honey to packers in Connecticut and New York for sale in bulk to bakeries. At the world spot price of 31 cents per pound, this represents \$30,000 per container.

.51

0700 Series--Coffee, Cocoa and Spices

This sector is clearly dominated by the traditional coffee exports (Table 3.13).

Table 3.13
Honduras
Exports of Coffee & Cocoa
(FOB Value, US\$ millions)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Coffee	173	153	151	169	185
Cocoa beans	0.8	1.8	1.8	3.1	3.1

What is noticeable, however, is that no cocoa products are registered as exports. These would include cocoa paste and powder, and chocolate candies and similar confections. Other countries in the region are promoting production and export of such products.

No spices are registered as exported.

0800 Series--Feeding Stuff for Animals

No exports registered in this category.

0900 Series--Miscellaneous Food Preparations

Edible corn starch is part of the processing of maize. Exports did well up to 1984, but have fallen off substantially since (Table 3.14).

Table 3.14
Honduras
Exports of Miscellaneous Food Preparations
(FOB Value, US\$ millions)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Edible Corn Starch	1.9	2.2	2.4	2.5.	1.3

There is much international competition for the supply of this commodity.

In 1985, 1,100 tons were exported, giving a unit fob price of \$1,130/ton. This export is moderately sensitive to the cost of transport, and could improve its export potential if such costs could be reduced.

It should be noted that there is much room for increased activity in this area. Other countries of Central America produce bottled sauces and ketchups for export at competitive prices.

10 Series--Beverages and Tobacco

No beverages are registered as exported.

While tobacco leaf is a basic commodity, being bought and sold on the commodity exchanges, tobacco products are not. The overall exports of this group have been dominated by the world demand and supply of tobacco leaf, giving a steady fall over the period. For the cigar and cigarette group and other tobacco products the recent history has been considerably better (Table 3.15).

Table 3.15
Honduras
Exports of Tobacco Products

	FOB Value US\$ millions				
	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Tobacco	13.3	10.7	10.8	8.3	8.6
Cigars/cigarettes	4.8	5.7	6.3	6.5	4.5
Other tobacco	<u>1.8</u>	<u>1.2</u>	<u>2.4</u>	<u>1.1</u>	<u>0.4</u>
	19.1	17.6	19.5	15.9	13.5

	1985 Tonnages		
	<u>Tons</u>	<u>Value</u>	<u>Unit Value</u>
Tobacco	2,319	8.6	\$ 3,708/ton
Cigars/cigarettes	423	4.5	\$10,638/ton
Others	<u>58</u>	<u>0.4</u>	<u>\$ 6,896/ton</u>
	2,800	13.5	\$ 4,821/ton

Honduran exporters in this group are making a determined bid to promote Honduran cigars, particularly in US markets. It is expected that as a result of this, export figures for 1986 and 1987 will show considerable improvement.

64

The non-perishable nature of this product and its high unit value made it an ideal candidate for air transport. It was considered that the air freight rates from Honduras were particularly advantageous. Transportation in general was not a significant cost factor.

RAW MATERIALS

20 Series--Crude Materials Excluding Fuels

This group of exports has shown a steady decline over the last few years. Only the subcategory of seeds, bulbs and roots has managed to remain firm (Table 3.16).

Table 3.16
Honduras
Exports of Crude Materials
(FOB Value, US\$ millions)

<u>Product</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Furs & Skins	1.4	1.3	2.3	1.3	0.3
Sesame Seeds	1.2	0.6	0.6	0.9	1.4
Wood	43.2	44.7	40.4	34.9	34.1
Palm Oil Nuts	0.1	0.2	0.6	0.6	0.4
Waste Paper	0.8	0.6	0.6	0.9	0.7
Scrap Metal-- Non Iron	0.2	0	0	0.1	0.2
Seeds, Bulbs, Roots	1.6	2.8	2.1	2.3	2.2
Resins	6.7	4.2	1.5	1.6	1.5
Balsam	<u>0.4</u>	<u>0.4</u>	<u>0.5</u>	<u>0.5</u>	<u>0.8</u>
TOTAL	55.6	54.8	48.6	43.1	41.6

The category is remarkable by the fact that exports of flowers and tropical plants are not represented, even though neighboring countries are promoting these items. Much interest was expressed in Honduras, and many growers claimed their intention to start production in the near future.

The lack of refrigerated storage facilities at the airports and the lack of a reliable air freight service were considered major obstacles to the development of exports.

30 Series--Mineral Fuels, Lubricants & Related Materials

Only the traditional petroleum derivatives were included in this category, which has fluctuated in value over the period 1981-1985 (Table 3.17).

Table 3.17
Honduras
Exports of Mineral Fuels Etc.
 (FOB Value, US\$ millions)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Petroleum Derivatives	2.4	0.6	3.9	4.7	5.9

40 Series--Animal and Vegetable Oils, Fats, Waxes

Palm oil was officially considered by national policy formulators as a product with particular export potential. From virtually a zero start in 1981 the increase in annual value to currently approximately \$10 million has been a sign of a major success (Table 3.18).

56

Table 3.18
Honduras
Exports of Oils, Fats, Waxes
(FOB Export Value, US\$ millions)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Palm Oil	0	0	4.2	11.2	9.4

NON-TRADITIONAL INDUSTRIAL EXPORTS

50 Series--Chemicals & Related Products

Table 3.19
Honduras
Exports of Chemicals
(FOB Value, US\$ millions)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Organic Compounds NEP	3.3	1.5	2.8	1.3	0
Pharmaceuticals	0.3	0	0	0.8	1.0
Washing Powder	12.9	9.6	11.0	6.0	2.3
Inedible starches	1.3	0.8	1.3	1.3	0.7

60 Series--Manufactured Goods

Table 3.20
Honduras
Exports of Basic Manufactured Goods
(FOB Value, US\$ millions)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Plywood	1.6	0.7	0.7	1.3	1.5
Doors & Windows	1.6	1.2	1.3	0.9	0.5
Wood Manuf. NEP	11.8	9.8	9.8	8.6	5.7
Paper Bags	1.0	0.6	1.1	0.6	0.4
Cardboard Boxes	1.9	1.9	1.5	0.8	0.6
Cellophane Bags	1.3	0.9	0.9	0.6	0.4
Bottle Tops Etc.	1.1	0.4	0.6	0.7	0.4
Barbed Wire	0.9	0.7	0.9	0.6	0.3
Coffee Grinders, Manual	0	0.4	0.5	0.6	0.5

51

70 Series--Machines and Transportation Equipment

No exports were registered in this category.

80 Series--Other Manufactured Goods

Table 3.21
Honduras
Exports of Other Manufactured Goods
(FOB Value, US\$ millions)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Corsettes, Brassieres	2.8	2.4	2.4	1.4	0.7
Other wood furniture	3.5	1.6	1.1	1.2	1.3
Bamboo, etc. furniture	1.6	1.3	1.6	2.5	2.2

When asked what the problems were that had been encountered in the export of manufactured products, the reply was that the major problem was the high cost of transport, both by land and by sea. Rates of \$1,300 and \$1,950 for 20-foot and 40-foot containers of wood products from Tegucigalpa to Miami were quoted. The equivalent rates from San Pedro Sula were \$1,800 for a 40-foot container to Miami and \$1,200 for a 20-foot container to Miami. New Orleans, Galveston, Mobile, and Miami, and other ports in Florida were also used. Coordinated Caribbean Transport (CCT), Sea-Land, and Concord were mainly used. Other problems encountered were related to the service offered:

- o the service was infrequent and the choice of destinations was limited
- o it was not possible to export to the Caribbean area with any ease
- o exporting to Europe was considered virtually impossible.

It was felt that most of the products were forced to go to the east coast of the United States. A market for these products certainly existed in the east and central states of the U.S.A., but there also existed markets in the west which were untapped. In a given year, there were approximately 500 40-foot container loads of wood products exported from Honduras. 50% came from the Tegucigalpa area and 50% from the San Pedro Sula area.

When asked about the cost of land transport, rates of 800 lempiras for a 40-foot container from Tegucigalpa to Puerto Cortés were quoted, approximating to \$400; for 20-foot containers the land transport price would be between 550-600 lempiras. This would approximate to \$280 on average. The distance from Tegucigalpa to Puerto Cortés is 330 km, a run which was normally done in 8-10 hours. There was occasionally a shortage of containers for dry cargo and in other industries there was a great shortage of refrigerated containers. There were no particular incentives for exporters of manufactured products.

THE GENERAL BUSINESS CLIMATE

There were a number of organizations involved in the import and export business. These included ANDI, the National Association of Industrialists; ANEXHON, the National Association of Exporters; and COHUTI, the National Association of Transportation Users. These were all assisted by FIDE in one form or another and the various Chambers of Commerce and Industry in Tegucigalpa and San Pedro Sula gave their support.

Unfortunately, many of these organizations involved only one or two people, as was the case of COHUTI, where one individual and his secretary were the only work force available in the organization. They were thinking of putting together a project with International Transportation Associates, based on a concept contained in a report which they had submitted to USAID. This report gave guidelines for setting up a Caribbean Central America Shippers Association. The function of this association would be to coordinate and consolidate transportation in Honduras and to achieve reductions in rates through national cooperation. The way that this was going to be put into effect was that a company was to be created joining the resources of FIDE and International Transportation Associates, and this organization would be put under the jurisdiction of COHUTI. Since the organization was to be self-supporting financially from transportation cost savings and subscription income from members, there was no need for any other support.

Generally speaking, it was considered that importing and exporting were far from easy, but that as a matter of policy the government had made exporting a relatively easier process than importing. For exports, the normal time for processing the export permit from the Central Bank was about 24 hours. The country has a list of priority imports and exports. The encouragement of exports and the discouragement for imports has been brought about in an attempt to balance the trade deficit. However, one of the problems mentioned was that while the theory was good, quite often the practice was not, and as in other countries that were studied, it was not possible to complete any export if papers were not 100% complete. The customs agents were often found refusing permission for loading a perishable export item because of a single fault in

the documentation. Since exporters were normally required to put up guarantees for their exports in at least the value of the export itself, there was some question as to what the customs people felt they were achieving by refusing permission for the export to take place in the absence of a signature or a stamp. In most other countries, this discrepancy could be taken care of after the export had taken place.

The normal documentation required was as follows, for exports: a commercial export document, listing the details of the transaction, the product, its quality, price, and so on; a packing list; an export permit from the Central Bank; a permit from the Ministry of Natural Resources; and the basic export permit. Normally, customs brokers were used for the customs and excise processes. This would normally take two days. Thus including the obtaining of the Central Bank permit, a total of approximately three days was typical for arranging an export.

For historical reasons, the normal trading partner of Honduras was the United States. Trading with that country was normally done under one of three trading agreements: the first one was the GSP, or General System of Preferences; the second was the 806/807 Agreements; and the third was the CBI, the Caribbean Basin Initiative. Each of these required an additional piece of paperwork, but this was not normally one that slowed down the process of export. For GSP, a "Form A" was required, which was issued by the Chamber of Commerce. The only problem with Form A was that it had to be signed by the Ministry of Economy. This sometimes took a while, but as with most of the other permits in this category, it was more a function of getting the document to the buyer before the shipment arrived. Therefore, these actions could be completed after the export permits had been arranged.

For 806/807, the buyer had to obtain a completed form from the seller asserting that the product was being assembled from acceptable imports.

For CBI exports a special declaration of origin had to be sent by the vendor to the buyer. This only needed to be signed by the exporter himself. The buyer had to add to this his own form for submitting for the special tax status.

In the case of imports, most of the delays occurred at the Central Bank. There were no particular problems at customs. There was a law of temporary imports related to materials which were to be used in subsequent exports. This again was something that worked well in theory but the practice was that it took upwards of 10 days to get the customs to process imports on this basis. The situation with these temporary imports was far more complicated than it had been previously.

There were a number of incentives that were available to exporters. The first one was the Law of Temporary Imports, the "Ley de Importaciones Temporales," which gave an income tax holiday of 10 years for all those aspects of an organization that were used in exports. This law was in existence in a previous format which gave the tax holiday only to organizations that were 100% exporters. In those days there was no particular problem with the documentation and validation. This had been changed to include all exporters, regardless of the percentage of the product that was exported, and it remained to be seen how easily this would be implemented.

The second incentive to exporters was the "Ley de Fomento de Exportaciones." Under this system, a 10 to 15 percent rebate in taxation was given to exporters. This took the form of what is called the "Certificado de Fomento de Exportaciones," otherwise known as "CEFEX." This is the same concept as the "Certificado de Abonos Tributarios" in other Central American countries. There was a problem with this incentive in that it took approximately 6 months for the authorities to consider the application for the tax rebate certificate. In some cases, this could even be turned down. It was therefore very difficult for an exporter to include the effect of this tax rebate in his cost calculations. The way it operated at the time was that if the tax rebate was received it was a windfall profit.

However, there was currently in process a modification to the legislation to allow a quick response to the application for the tax rebate. This was known as the "Ventana Unica."

When asked if there were any particular problems in land transportation transiting Honduras from neighboring countries, it was stated that there was no particular problem in this, but that so far as was known, there was a requirement that each truck pay of the order of 100 or 200 lempiras at the border for a police escort. This is known as the "Costo de Vigilancia." However, again this was being reconsidered.

There was also in progress an incentive agreement between El Salvador and Honduras, whereby Salvadoran products could go to Puerto Cortés in Honduras, instead of Santo Tomás in Guatemala. At the time of the study, this was still at the discussion stage.

HONDURAS

CHAPTER 4

NATIONAL TRANSPORTATION

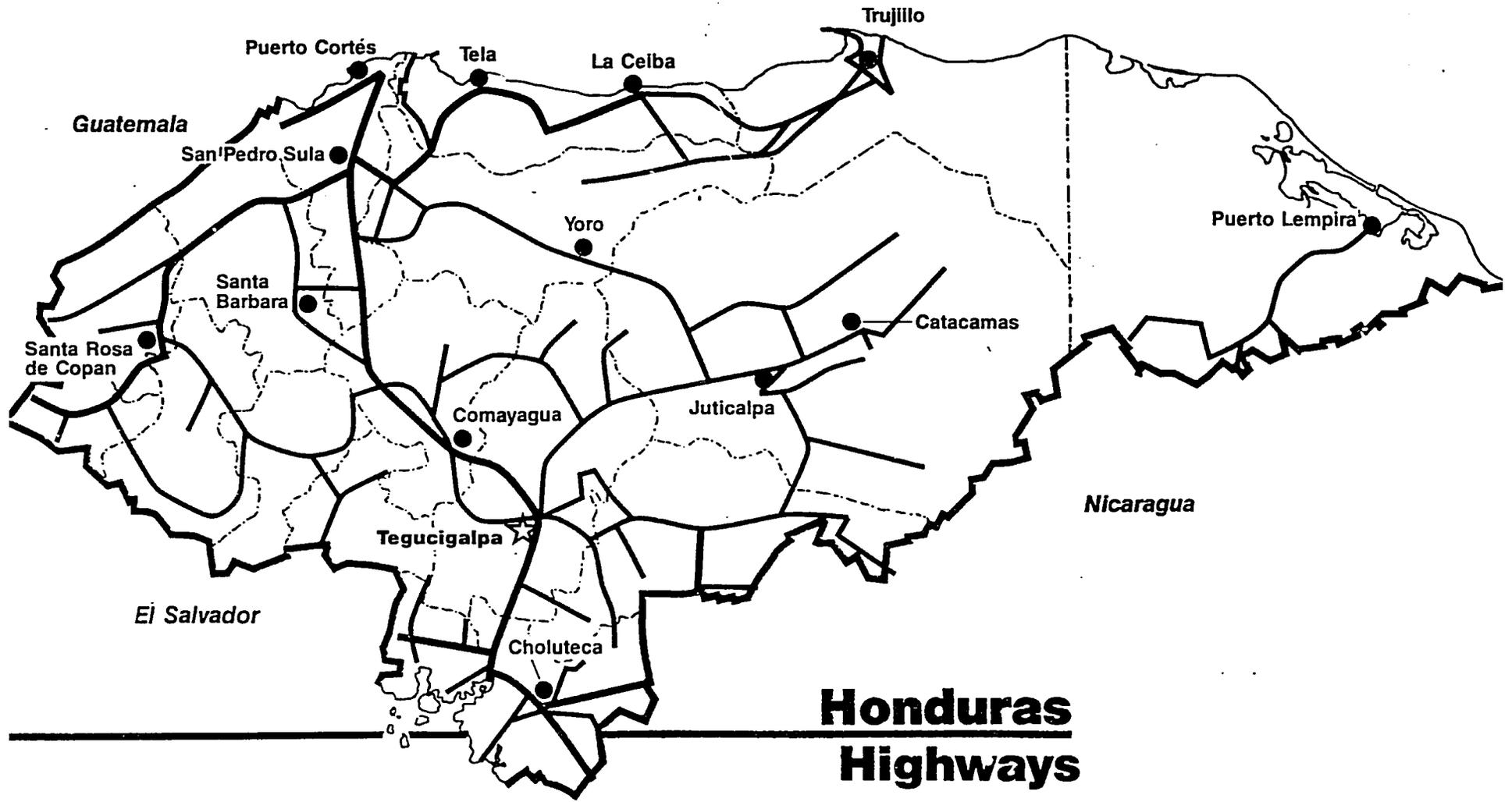
ROAD TRANSPORTATION

The Highway System

In 1983 there were 18,280 km of roads of all types, of which 1,828 km were paved and 9,379 km were passable in all weathers. The penetration represented by the 1983 total is a marked improvement over the estimated 5,600 km total for 1976, and reflects the attention that the highway system has received in recent years. Except for the northeast, each section of the country participates in the highway network, though with many local gaps.

Unlike the other countries of Central America, Honduras does not have the Pan American Highway passing through the capital city, Tegucigalpa, which fact has led to a very different pattern of highways in the country. The main paved roads are:

- o The Northern Highway (Tegucigalpa--San Pedro Sula--Puerto Cortes) 302 km.
- o The Pan American Highway (El Salvador--Nicaragua) 111 km.
- o The Southern Highway (Tegucigalpa--Pan American Highway) 196 km.
- o The North Coast Highway (San Pedro Sula--Progreso--Tela--La Ceiba) 147 km.



Honduras
Highways

- o The Western Highway (San Pedro Sula--Santa Rosa de Copan) 148 km.
- o The road linking Choluteca on the Pan-Am Highway with the Nicaraguan frontier at Guasaule 44 km.
- o The Eastern Highway (Tegucigalpa--Danli--El Paraiso--Las Manos) 158.5 km
- o The Olancho Highway (Tegucigalpa--Catacamas) 223 km.

International Road Connections. The net effect of the system is that Honduras has good access from Tegucigalpa to both Nicaragua and El Salvador by way of the Pan American Highway, with San Pedro Sula and Cortés being connected by road to Guatemala and El Salvador. Connections to Nicaragua from San Pedro Sula or Cortés would be via Tegucigalpa.

Of the international road connections, only the Pan American Highway is consistent on both sides of the border: the connecting roads to San Pedro Sula from both Guatemala and El Salvador are unpaved and in poor condition.

Highway Condition and Extent. Inspections of the highway system revealed that the paved roads in most areas were still in fair condition, though poor construction practices had led to rapid deterioration in areas of greatest use--particularly around San Pedro Sula and Puerto Cortés in the north. All-weather roads were falling behind in their maintenance schedules in places, making passage by heavy trucks slow, dangerous, and expensive.

The global road statistic for Honduras is 0.16 km of road per square kilometer. Compared with other countries in the area, this is low for adequate access to all areas. The figure reflects that vast tracts of the country are virtually inaccessible by road. It also reflects the fact that the roads have been constructed principally to connect main population centers, and so most of the

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population had reasonable access to transport. For agricultural transportation, however, most of this has to cover dry-weather roads and tracks, with all the consequences for costs.

Future Highway Expansion. For future expansion, Honduras is in the advantageous position of having for the most part established a wide right-of-way for its major road system. This width is compromised where highways run through some villages, but overall there is the potential for creating additional capacity without too much disruption. Passing lanes, for example, could be constructed on some of the steeper grades in the mountain areas. A major restriction to the addition of capacity is the number of narrow bridges over the many streams. This fact had been taken into account by the appropriate authorities, and a number of bridge construction projects were under way at the time of the study.

Major highway projects that are already in progress, with construction planned to begin in 1987, include:

- o The construction and rehabilitation of 265 km of rural roads in La Paz and Intibuca provinces, along Honduras' western border with El Salvador. This \$7.5 million project is a major portion of a \$17 million integrated rural development program. Plans call for construction of 70 km of new roads, reconstruction of 45 km of existing roads and improvements to another 150 km. Financing for the program includes an Inter-American Development Bank loan, funds from the Honduran government and funds from the Fundacion para la Investigacion y Desarrollo Empresarial (FIDE).

- o The construction and rehabilitation of 386 kilometers of secondary and access roads to integrate farmers in isolated areas of the Aguán River valley and Olancho province. Financing will be through two loans totaling \$29 million from the Inter American Development Bank. This project is also part of a larger regional program.

The Trucking Industry

In 1982 the trucking industry had a total of 5,715 regular trucks of all classes and 909 tractor trucks. There were also 811 trailers of all types registered, though this number was constantly supplemented by trailers in the country with temporary permits, particularly those of some of the major shipping lines.

Surplus Trucking Capacity. The trucking industry in Honduras, at one stage or another, carries virtually the whole of the country's imports and exports, and moves freight within the country. A relatively small part of the total goes by rail, and even imports and exports by air have to be carried to and from the airports. In 1982, the total export volume by all modes was 1.8 million metric tons. Of this 97% left the country by sea, and 61,000 tons left the country by land. Taking imports and exports together, and making an allowance for movement within the country, a total tonnage of 2.8 million tons is arrived at. In 1985 this figure was 2.4 million tons, indicating that, even with the same trucking fleet as in 1982, there has been a 12% decrease in demand. Allowing for the import of new vehicles and the retirement of unusable vehicles, it is estimated that the trucking industry in Honduras has a surplus capacity of between 15 and 25%.

Trucking Rates. Trucking rates are not fixed or published in Honduras, the individual trucking companies being free to make their own agreements with shippers. Typical charges from Tegucigalpa to Puerto Cortes for a 40-foot container were \$273.

On a per kilometer charge, the following rates were being used by one of the major companies:

Loaded	\$0.73/km
Empty	\$0.65/km
"Bobtail"	\$0.63/km

There was not normally a charge by weight, though some companies published tariffs with charges by type of cargo, distance traveled, and total weight.

Financial Difficulties. Trucking companies in Honduras reported that they were having considerable difficulties keeping their business financially viable. They were adamant that increases in rates should be established, but because of the lack of centralization and control there was no way they could do other than respond to market forces. Moves were under way at the time of the study to have fixed rates established and enforced by law.

Movement of freight around the country under customs seal is possible, eliminating the need to have all containers opened and inspected on arrival in the country. To ensure that goods were not interfered with while in transit, a customs guard had to be allocated to accompany the shipment. A charge was made to the carrier--which was passed on to the shipper--for this service. The charge was made on a per-shipment basis, and could be in the range of \$50 to \$100 per container. This charge was clearly significant in terms of the cost of trucking, and served to increase considerably the cost of goods moved under bond. For exports sealed in the Tegucigalpa area, the cost of "vigilancia" could easily add 50% or more to the land transport leg cost. A similar arrangement was in force for trucks in transit from Nicaragua to El Salvador, and vice-versa.

RAIL TRANSPORTATION

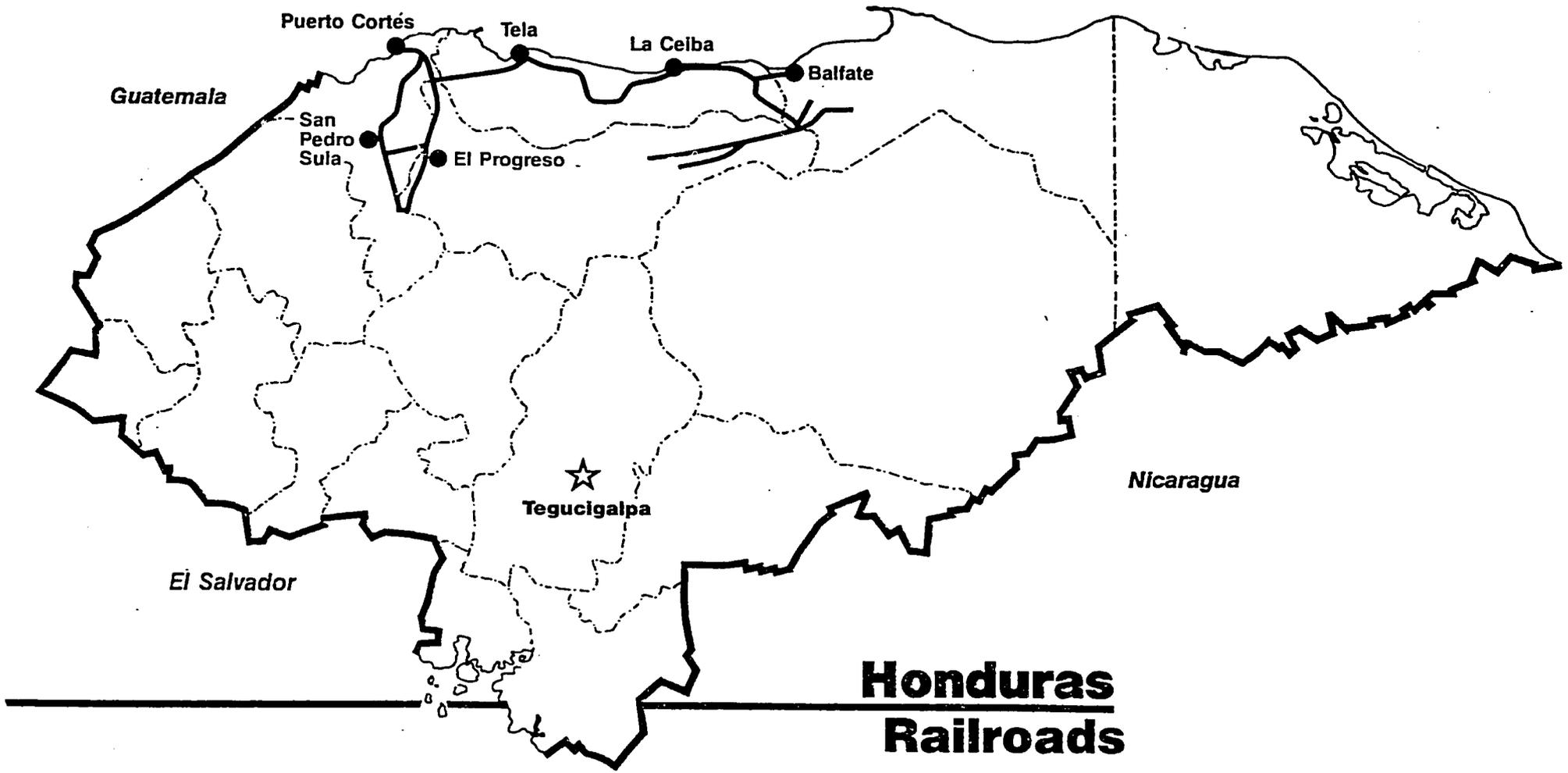
Limited Rail System. Honduras has a very limited railroad system of about 1,270 kilometers. It is operated by Ferrocarril Nacional de Honduras, and is located mostly on the Caribbean coast in and around the San Pedro Sula area. The system is used primarily for the movement of bananas from the plantations to the ports, though a passenger service is also operated on certain sections. The gauge is a narrow one--1.067 meters. There is no rail access to the capital at Tegucigalpa.

MARITIME TRANSPORTATION

The Ports

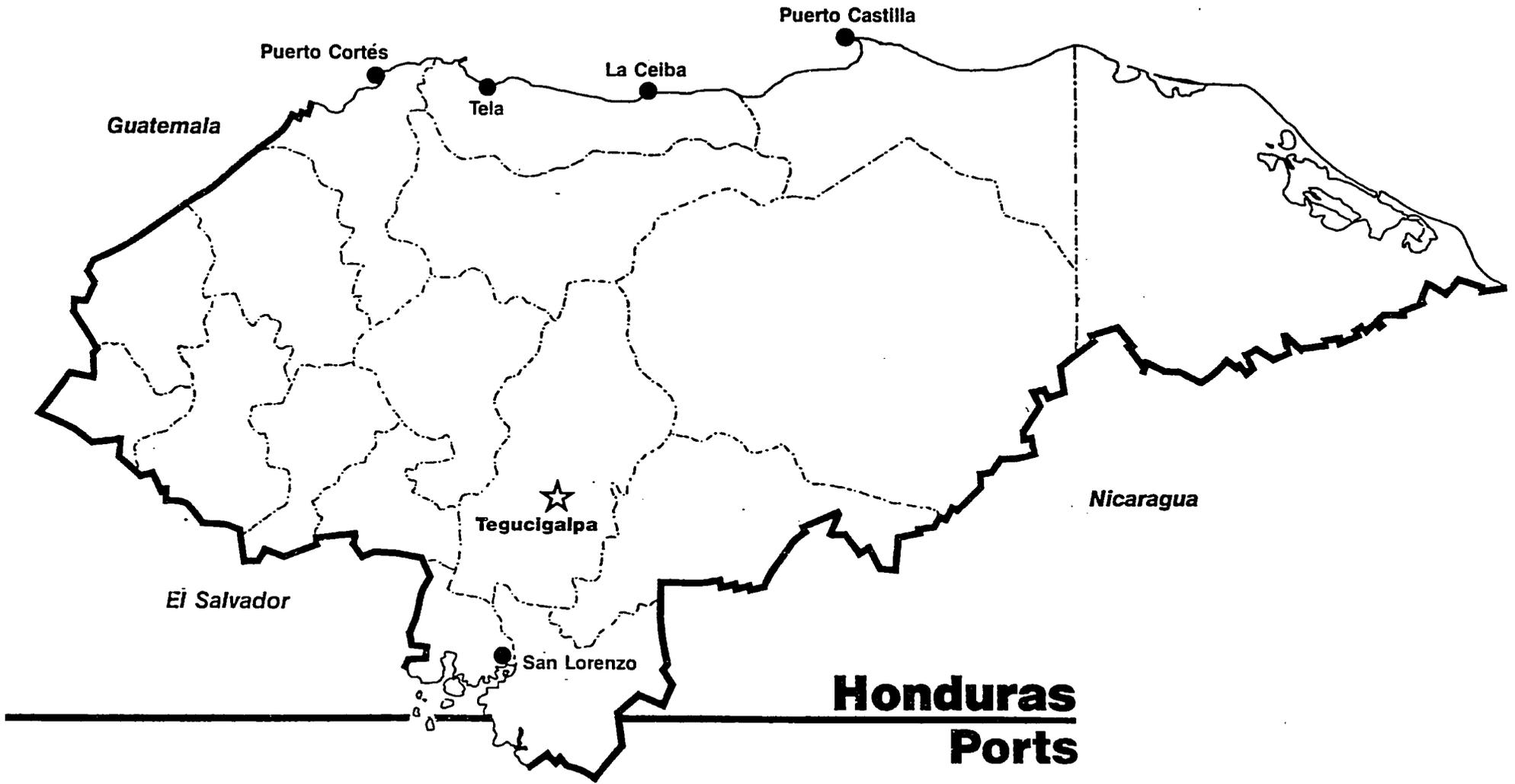
The four main ports on the Caribbean are Puerto Cortés, which handles over half the export trade, La Ceiba, Tela and Puerto Castilla (inaugurated in May 1984). On the Pacific coast the major port used to be Puerto de Henecan. Work started on the construction of a new port at San Lorenzo, on the Gulf of Fonseca, in 1976 and was completed in 1980.

Puerto Cortés. Puerto Cortés, the Republic's principal port, located on the Atlantic coast at the mouth of the Ulúa river, is 58 km by road and rail from San Pedro Sula, 333 from Tegucigalpa, and two days' voyage from New Orleans. This port is located at latitude 15° 48' north and longitude 87° 57' west.



Honduras
Railroads

11



22

The port is administered by the National Port Company (ENP), which organization also administers the other ports in the country.

The port has five berths with a total length of 1315 meters. The depth of water at the berths ranges from 7.5 to 12.8 meters. The port has available four transit sheds for the storage of cargo, with a total area of 15,500 square meters. The open storage area is of the order of 300,000 square meters, of which 83,000 square meters is for the use of containers, container trucks and trailers. The rest of the area is used for general open storage of cargo.

Within the port are located the following facilities:

- o a petrol/oil terminal
- o a molasses pier
- o two berths with transit sheds
- o two berths, served by a container crane
- o two container stradle carriers
- o storage area for 800 containers of 40 ft
- o electrical outlets for 30 refrigerated containers
- o a mechanical repair & maintenance facility
- o a hospital
- o fire-fighting equipment
- o computerized data-processing center
- o administrative facilities
- o extensive rail lines throughout the port
- o an integral free trade zone of 205,750 sq. m.

The port has the following equipment:

- 1 portal crane for containers with a capacity of 40 tons
- 9 cranes with capacities of 5 to 100 tons
- 80 forklift trucks with capacities of 3,000-15,000 pounds
- 2 tugs and two pilot boats

The port has a tidal range of only 0.3 meters. It is equipped with high-mast lighting that permits 24-hour operations.

The port at Puerto Cortés was constructed in 1966 with financial assistance from the World Bank. It was constructed on the site of an existing port, and took advantage of the natural harbor. In 1986 the port is a modern facility with all the services of a major port. It was reported, however, that the port was operating at only 60% of its capacity. This underutilization has led to problems in repayment of the underlying load and the consequent need to charge what are considered inflated rates for the use of the facilities.

The idea behind the construction of Puerto Cortés was that it should become the main port for the Central American Common Market (CACM), and it was designed to serve all neighboring member countries. With the collapse of the implementing efforts of the CACM, the country has been left with facilities in excess of national requirements.

The Puerto Cortés Free Zone was created in 1976 to provide facilities for trade and industry. The zone is under fiscal control and has no resident population. It is administered by the National Port Authority. The city of Puerto Cortés is located nearby. Both national and foreign trade and industrial enterprises that are basically engaged in export and in related or complementary activities may establish in the free zone.

The Industrial Park offers pre-constructed plant facilities suitable for light and medium industry. In addition, the commercial complex offers rental spaces in units from 2,400 to 20,000 square feet. Water, power, waste disposal and communication services are available.

At the time of the study the port authority was undertaking a land reclamation project using hydraulic fill dredged from the bay. It was intended that more container storage space would be added, additional berth space would be added, and the Free Trade Zone would be expanded.

Puerto Castilla. The modern port of Puerto Castilla is located on the Atlantic Coast of Honduras at latitude 16° 0' north and longitude 85° 58' west.

In a natural harbor made up of a deep water inlet, the port comprises a concrete pier 150 meters long by 38 meters wide. The depth of water at the berth is 11 meters. The turning basin in the bay is 400 meters in diameter with a depth of 14 meters. At the time of the study, the port had available the following equipment:

Facilities for the handling of oil, diesel, bunker, gasoline and palm oil

600 square meters of open storage for the storage of wood and wood products

68,000 square meters of paved general storage areas

4 forklift trucks with capacities from 4,000-15,000 pounds

5 yard tractors

10 trailers

1 tug and 1 pilot launch

1 lift truck of 40 tons capacity

The road access to the port is poor, and unlike most of the other ports, Puerto Castilla is not connected to the rail system. The port is used mostly for the export of wood and palm oil.

Tela and La Ceiba. Tela is located at latitude 15° 47' north and longitude 86° 45' west on the Atlantic coast of Honduras. It consists of a finger pier of 472.4 meters in length and 12.2 meters wide. The depth of water at the berth is 10 meters. There is an open storage area for cargo of 518 square meters. This pier is used for general cargo, bananas, and coastal traffic.

La Ceiba, the country's busiest port for the export of bananas and pineapples, is 64 km east of Tela, from which it is reached by air, sea, road (paved, but may be flooded in winter) or rail (85 km). The capital of Atlántida Department, this port is located at latitude 15° 47' north and longitude 86° 47' west on the Atlantic Coast of Honduras. The port consists of a finger pier of 424 meters in length by 15.7 meters wide. The depth of water at the berth is 7.3 meters. For the storage of materials, there is a total area (enclosed and open) of 1886 square meters. This port is mostly used for the export of bananas and other agricultural products, with some coastal shipping.

The ports of Tela and La Ceiba are old piers of wooden piles and decks that were constructed a number of years ago by the major fruit companies for their own purposes. In places the wooden piles have been cased in concrete for additional strength. The normal system of operation is for vessels of 10 to 20 thousand tons to tie up alongside at the deepwater end and for the boxes of fruit to be brought to the pier head in rail cars. At Tela there is a continuous box loader to lift the cargo from the dock to the hold, while at La Ceiba the operation is performed by ship's cranes, though an occasional truck-mounted crane on the dockside is used.

San Lorenzo. San Lorenzo is located at latitude 13° 24' north and longitude 87° 22' west on the Pacific coast of Honduras in Boca de Henecan Bay. This is a well protected and natural port which is reached by means of an access channel approximately 32 kilometers long. The port consists of a T-head pier of 300 meters length and 40 meters wide, with a depth of water at the berth of 8.53 meters.

There is available 9,012 square meters of storage area for wood, sugar, cotton, and general cargo. The total storage area is 39,000 square meters. This is all open storage.

The T-head pier at San Lorenzo is used mostly for the export of cotton, and has available a limited amount of equipment. Access to the pier for shipping is by way of access channels, the navigability of which varies according to the state of the tide. The port is not generally popular with shipping lines, and so much cargo destined for the Pacific goes by way of Puerto Cortés and the Panama Canal. The National Port Authority is looking at inducements for increasing the use made of this port.

Port Tonnages

The following table (Table 4.1) illustrates the tonnages handled by the ports of Honduras in 1982. Figures for this year have been selected because the total handled was slightly less than in other years, and so reflect a distribution when choice is available.

Table 4.1
Exports of Honduras
Distribution By Ports
(Metric Tons)
1982

<u>Cargo</u>	<u>Cortés</u>	<u>Tela</u>	<u>Port</u> <u>La Ceiba</u>	<u>San Lorenzo</u>	<u>Total</u>
Molasses	36,164			25,000	61,164
Minerals	66,800				66,800
Unref. Sugar	67,626				67,626
Bananas	427,232	181,038	289,605		897,875
Plantains	966				966
Meat 16,392			423	16,815	
Wood	147,037			81,136	228,173
Cement	10,764				10,769
Pineapples					
Coconuts	4,812		39,531		44,343
Grapefruit					
Coffee	55,558			2,342	57,900
Cotton				5,927	5,927
Tobacco	3,707				3,707
Banana purée	4,602	5,308			9,910
In transit	27,661				27,661
Other General	<u>156,687</u>	<u>6,752</u>	<u>3,551</u>	<u>2,405</u>	<u>169,395</u>
TOTAL EXPORTS	1,026,013	193,098	332,087	136,690	1,688,488
%	61	11	20	8	100

Source: Empresa Nacional Portuaria (ENP)

- o \$1,950 for a 40' container of wood from Tegucigalpa to Miami. \$1,800 for S.P.S.
- o \$1,400 for a 40' container of textiles from San Pedro Sula to West Palm Beach.
- o \$2,200 for a 40' container of wicker from Singapore to San Pedro Sula.
- o \$1,664 for a 40' container of wicker furniture from San Pedro Sula to Miami.
- o \$3,600 for a 40' refrigerated container of 20 tons of melons from Puerto Cortés to Port Everglades.
- o \$4,145 for a 40' refrigerated container of 20 tons of fresh fruits or vegetables from Puerto Cortés to new Orleans.

System Capacity

Current figures for 1986 indicate that approximately 520 ships called at the port of Puerto Cortés. They called to pick up a total of about 620,000 tons of cargo; they offloaded about 700,000 tons. On a per ship basis--a very coarse measure--this reduces to 1,200 tons each loaded and 1,350 tons each offloaded. Bearing in mind that 50% or more of the export tonnage was loaded onto ships chartered or run by the major fruit companies for bananas and a large part of the imports came in petrol tankers, it would be more accurate to reckon that nearer 400 vessels called to collect about 320,000 tons of cargo, and delivered 400,000 tons of non-tanker cargo. The average loaded per vessel becomes 800 tons, and the average offloaded becomes 1,000 tons.

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The function of this analysis is to demonstrate, in very general terms, that the volume of export cargo--excepting the special case of bananas--is distributed very thinly amongst the vessels that call. While there would appear to be more demand for import cargo, even that would be of little incentive to a steamship company.

What can be deduced from this is that Puerto Cortés is comparatively well served by shipping lines, and that there is significant spare capacity for further exports. It does not necessarily follow, however, that the spare capacity is useful capacity, in being appropriate for the exports.

This "apparent" capacity shortage can best be demonstrated by looking at the container inventory during the first six months of 1986, as shown in Table 4.2.

Table 4.2
Honduras
Container Movements
Jan-June 1986

	<u>Import</u>	<u>Export</u>	<u>Total</u>
Full Containers			
Regular	2,915	7,906	10,821
Trailers	3,519	479	998
On chassis	12	14	26
Total	3,446	8,399	11,845
Empty			
Regular	6,474	992	7,466
Trailers	74	73	147
On chassis	321	249	570
Total	<u>6,869</u>	<u>1,314</u>	<u>8,183</u>
Total Two-Way Movements			20,028

Source: Empresa Nacional Portuaria

Note: The above are raw numbers of containers. No attempt has been made to separate 20 ft. units from 40 ft. units.

During this 6-month period approximately 3,450 containers arrived fully-loaded, and approximately 8,400 containers were exported fully-loaded. There is thus a 2.4 to 1 imbalance in the demand for containers.

Under normal circumstances it would be necessary to import about 5,000 empty containers to make up the difference between loaded imports and exports. The figures show, however, that nearer 7,000 empties were imported.

Chassis and trailers arriving in the country do so with a temporary permit of 60 days. Before that time the chassis has to be removed or be considered an import, and be subject to duty. This permits only a small inventory at any given time, and leads to the excessive shipping in and out of the country of the unloaded chassis.

Thus, in round terms, the balance sheet becomes

	Containers	Containers
	<u>Imported</u>	<u>Exported</u>
Full	3,450	8,400
Empty	<u>6,900</u>	<u>1,300</u>
Total	10,350	9,700

Thus the customs requirements lead to the export of approximately 1,300 empty container units every 6 months. The cost of shipping these containers, together with all related port charges, has to be added to freight charged on loaded containers. Again, in round figures, the empty exports cost about \$600 each, and so cost the nation about \$780,000 every 6 months, or conservatively about \$1.5 million a year.

The following tables (Tables 4.3 and 4.4) show the distribution of maritime imports and exports between dedicated berths and general cargo/container berths. Imports require that there be a dock for petroleum and derivatives, and sufficient other space for 114,000 tons; exports require berthing space to handle about 1,600,000 tons of general cargo and containers. The ports of Tela and La Ceiba can account for about 550,000 tons of, principally, bananas in a year, leaving 1,050,000 to be handled at Cortés. Taking imports and exports together, there is demand for a general cargo facility at Cortés to take about 1,200,000 tons.

The facilities available at Cortés, excluding the petroleum terminal, include a pier for molasses, two general cargo berths, and two container berths. At a very conservative estimate, the general cargo berths and the molasses pier should have a capacity of about 200,000 tons per year each, and the container berths should be able to handle not less than about 600,000 tons per year. The capacity of Cortés is thus about 1,800,000 tons--possibly nearer two million--with a current demand for about 1,200,000. There is thus a theoretical surplus capacity at Cortés of about 600,000 tons. The port is operating at about 60% of its capacity.

Table 4.3
Honduras
1985 Imports
(Metric Tons)

<u>Import</u>	<u>Dedicated Berths</u>	<u>General Cargo & Container Berths</u>
Grain		94,252
Cotton		458
(Crude Oil)		
Petroleum	543,190	
Gasoline	45,723	
Lubricants		8,877
Tires		3,709
Tubes		359
Tractors		268
Parts		892
Pumps		205
Radios etc		99
TV sets		50
Vehicles		1,013
Buses/Trucks		3,743
TOTAL IMPORTS	683,165	113,925

Source: Empresa Nacional Portuaria

83

Table 4.4
Honduras
1985 Exports
(Metric Tons)

<u>Imports</u>	<u>Dedicated Berths</u>	<u>General Cargo & Container Berths</u>
Meat		6,743
Bananas	939,872	
Other Fruits		46,426
Fruit Pulp		9,316
Fish		3,167
Sugar	111,074	
Maize		20,258
Coffee		56,142
Wood		92,465
Wood Products		21,525
Cotton		18,510
Molasses		40,737
Resins		3,868
Oils		16,918
Minerals		136,474
Other general		86,470
	<hr/>	<hr/>
TOTAL EXPORTS	1,050,946	559,019

Source: Empresa Nacional Portuaria

AIR TRANSPORTATION

Honduras is well provided with air transportation, having three international airports and over 30 other airports.

The two main airports are Toncontin, located 6.5 km from downtown Tegucigalpa, and Ramon Villeda Morales, 13 km from San Pedro Sula. Golosón airport is located at La Ceiba, and acts principally as a tourist terminal for passengers to and from the resort areas. Between them, the airports of Honduras connect the country by regular flights to the other countries of Central America, the Caribbean, Mexico, Miami, and New Orleans.

The national airline of Honduras is Tan-Sahsa. It operates two Lockheed Electras DC-32 for internal flights, and B-727-200s for external flights. Other airlines include those of Panama and Costa Rica, TACA and LACSA, and the US line Challenge.

All airlines operate principally as passenger carriers, and take cargo only as space permits. Tan-Sahsa, however, does operate its Electras as freight carriers daily to Miami. As yet Honduras has not developed an industrial sector that relies on the speed and efficiency of air cargo--such as fresh cut flowers.

The relative importance of the country's airports can be judged from the following table (Table 4.5) showing tons of cargo handled at the principal airports in 1985:

Table 4.5
Honduras
Air Freight by Airport, 1985

<u>Airport</u>	<u>Loaded</u>	<u>Offloaded</u>	<u>Total</u>
Toncontin	1,374	3,005	4,379
Ramón Villeda M.	1,736	2,134	3,870
Golosón	673	343	1,016

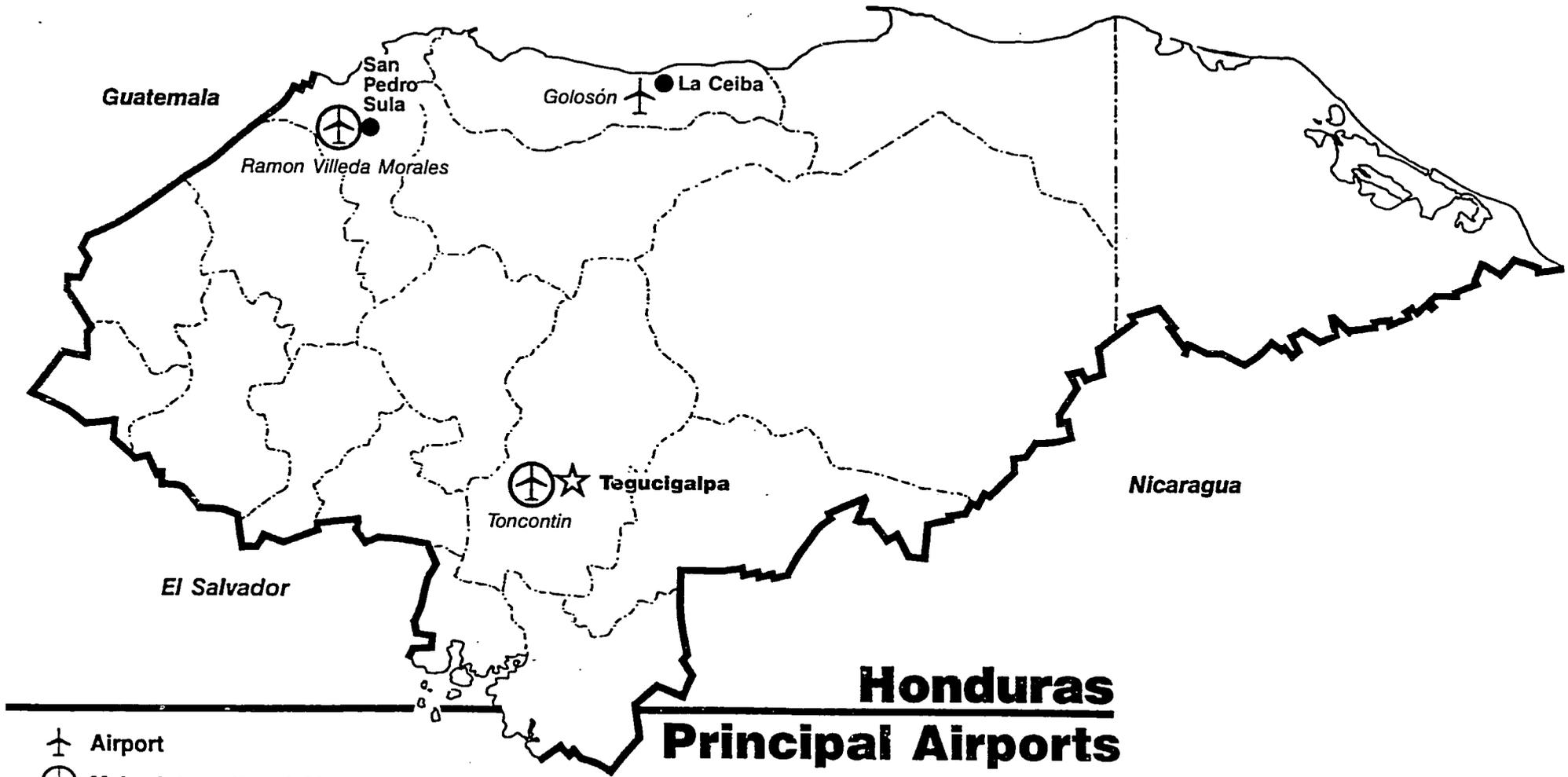
Source: Direccion Nacional de la Aeronautica civil

Thus marginally more exports leave from the San Pedro Sula area by air than leave from Tegucigalpa. The capital, however, manages to consume more airfreight imports than the San Pedro Sula area, approximately 50% more. Other airports clearly supply only a few local needs, and do not compare with the two major facilities.

Of the cargo handled at Toncontin, 54% either came from or went to Miami, with Panama at 19% being the next most important overseas connection. From San Pedro Sula, 66% of the air freight came from or went to Miami, with Costa Rica being the second most popular connection.

Adjusting the above totals to remove domestic air freight, we arrive at 2,925 tons of exports and 5,152 tons of imports. Exports by air have increased approximately 23% since 1982, an annual growth of approximately 7%.

The current average daily demand for air freight export is approximately 8,000 kg (17,630 lb) per day, though the average working day demand is probably nearer 10,000 kg (22,000 lb). Reliable daily capacity is probably not much in excess of 30,000 lb, this being the capacity of the Electras, and discounting the unpredictability of the cargo space on passenger flights. Thus a peaking factor of only 36% is available, which would clearly be unable to handle much seasonal fluctuation.



- ✈ Airport
- ✈ Major International Airport

47

There is thus a good probability that some perishable exports are being held back because of a shortage of air cargo space.

Published air freight rates from Tegucigalpa to Miami range from \$1.66/kg to \$0.92/kg, depending on weight. This gives a unit price of \$1,660 to \$920 per metric ton. The tariffs from the coastal airports are not much different.

HONDURAS

CHAPTER 5

TRANSPORTATION-RELATED CONSTRAINTS

INTRODUCTORY REVIEW

Investigations and interviews, as reported in previous chapters, resulted in the following general observations:

- o Honduras lacks the business environment of cooperation for common interests that in economically developed countries (EDCs) achieves an optimal use of the available transportation services.
- o There is an incomplete implementation of the concept of liability and responsibility. Only certain carriers, particularly foreign ones, accepted liability for lost or delayed shipments. Government-operated transport services particularly operate in an environment of immunity from liability. This is entirely antithetical to the interests of commerce.
- o The cost of transportation is a major factor inhibiting increased exports of non-traditional products. The real cost of transportation is the sum of the direct freight charges for each link in the transportation chain plus the indirect cost of the shipper's risk.

- o The level of service demanded by shippers is in conflict with the carrier's ability to provide a cheap service. A significant part of the cost of transportation results directly from decision of the shipper, and the remedy for lowering the cost also lies in the hands of the shippers.
- o Geography, demographics, and trade profile all serve to make Honduran exports basically expensive. The price of these exports can be made competitive in world markets by a continuing process of analysis and optimization.
- o There was not an appreciation of the role of trade in the economy of the country. It was concluded that trade would not be optimized in the absence of relevant national plans. These include a national transportation plan and a national export promotion plan.

THE ROAD SYSTEM

The current state of the road system in Honduras is what could be termed strategic: the system connects main centers of population and economic activity, and extends to the national boundaries to afford access to neighboring countries. Much of the system in place is based on the Central American Common Market scheme of making the port at Cortés the regional maritime center. Programs in hand for near-term expansion of the system are geared to encourage exporters of El Salvador to transship to Puerto Cortés.

The shortcoming in the system is that, while adequate newly paved roads connect the main centers, the local distribution system has been largely ignored, particularly from the maintenance aspect.

The study team concluded, however, that Honduras had a great number of advantages over neighboring countries in relation to road systems, so that the overall effect was that the country had a good basis for an economic road transportation system. It should also be born in mind that there were very few criticisms of the road network heard from those interviewed. The main advantages are as follows:

1. Favorable Distribution of Ports and Population Centers.

There is not just one center of economic activity. It was seen that Honduras was the only country in Central America with a main population center close to the main port. The effect of this is to reduce the average distance that exports have to be trucked. Guatemala and Costa Rica, for example, had the bulk of both imports (excluding bananas) and exports being trucked to or from the capital city. With San Pedro Sula as Honduras' second city, with a population only two thirds that of Tegucigalpa, and with up to two thirds of the imports going to the Atlantic coastal area, every opportunity was available for centering new industries near the port, thus eliminating all the competitive disadvantages of expensive land transportation.

2. Little Necessity for Difficult Coast-to-Coast Trucking.

Honduras' Pacific seaboard around the Gulf of Fonseca is extremely limited. A very small part of the total population lives in this area, and there is limited opportunity for major agricultural production. The main trend of exports is from high ground to low ground, and north-eastwards; there is not the problem in Honduras of quantities of exports being produced on the Pacific coast and having to be trucked over high mountains and down to the Atlantic coast port. In this sense, Honduras has a comparative advantage.

3. Development Independent of Pan American Highway Route.

Honduras has only a very short section of the Pan American Highway running through it. In other countries this highway has been the generator of agricultural expansion in the areas through which it passes, and has served to make worse the Pacific/Atlantic coast imbalance. Honduras has been able to develop those areas that are more efficient in their use of transportation.

In all these ways the highway system of Honduras is in an excellent position to serve as a basis for increased competitive exports. The concentration on major connections between major centers could be added to the list of advantages, but some changes in the way road transport is operated would be required.

Regional Centers. The most appropriate system of roads and highways for Honduras would be one of interconnected regional centers, with lower class roads radiating out from these centers. Each center would act as a transportation hub, and would consolidate produce received from the region. To act in this way, each center would need refrigerated storage facilities and would need freight consolidation facilities, or a container freight station. Light trucks would serve the areas around the centers, being better suited for the rural road system than the heavier units, and would collect freight and bring it to the center for consolidation and redistribution.

Under the regime adopted at the time of the study, very little consolidation of cargo was taking place. Individual producers would order a number of, for example, refrigerated containers to be taken to the farms at the time of harvest. These containers would be carried over highways and all classes of rural roads to reach the farm, and would then be hauled over the same roads when full to the port. The transport of 40-foot containers with up to 25 tons of produce over rural roads in poor condition provokes serious damage: to the truck and trailer, to the road itself, and to the produce. All this damage adds to the cost of transport.

In the same way, part of the cost of transport arises from the fact that producers insist on operation on a full containerload basis. In this way, an exporter requiring the use of a container will only ship his product when there is enough to fill a container. It may, for example, take two months to reach the required volume, and so every two months a container has to be

delivered by the transport company. This requires a considerable inventory of containers. If the producer could be persuaded to share a container and ship once a month, or every two weeks, the demands on container inventory would be far less excessive, and could result in a cut in the cost of this service.

Maintenance Capability. The responsibility for highways and roads falls under the secretariate for Communications, Public Works and Transport (SECOPT), which in turn assigns responsibility for implementation of policy to a number of divisions. These divisions include those of planning, highways, maintenance, and equipment. For the purposes of maintenance, eight districts have been established, each responsible for work in its own area. In some of the rural areas the system of "peones camioneros" has been introduced, whereby local groups are supplied with the tools to maintain the roads in their immediate neighborhood.

For the most part, the work of the repair and maintenance of all classes of roads is undertaken by the maintenance division, using its own equipment and personnel. Little or none of this work is put out to the private sector, requiring SECOPT to maintain its own inventory of equipment for the work. The repair and maintenance of the equipment is the responsibility of the maintenance division, using its own workshops, the chief of which is located in Tegucigalpa. Some private sector contracting of equipment rehabilitation has recently been tried, with USAID assistance, though as of the time of the study the program had not been formalized into a regular part of the equipment division's organization.

Investigations revealed that not more than about 25% of SECOPT'S road maintenance equipment is usable at any given moment, and that less than 50% of the work required to maintain the roads in an acceptable condition is carried out in any year. While the budget allocated by the government is a fraction of what would be required for this purpose, it is generally admitted that a large part of this money goes towards supporting a huge administration.

Inspection of the workshops operated by SECOPT in Tegucigalpa recalled that the factors that contributed to the poor level of equipment included:

1. A bureaucratic process that virtually made impossible the obtaining of spare parts and replacements.
2. The absence in Honduras of a school for the adequate training of mechanics.
3. Complete absence of preventative maintenance and regular servicing of equipment.
4. Absence in the workshops of the general and specialized tools required to work on heavy equipment.
5. A lack of spare parts and adaptors for most of the workshop tools.
6. Offices without the standard office equipment (typewriters, etc.).

7. The absence in Honduras of schools for training in the operation of heavy equipment and the driving of heavy trucks.

As a general rule, a piece of equipment entering the workshops for repair would not be in working order for at least a year. Part of this was due to the time taken to order and receive a required spare part, but the delay was also due to the fact that every new entry would be stripped of its usable parts to facilitate the repair of a prior arrival. Thus, when a spare part actually materialized it was necessary to look for replacements for all the other missing parts. Most of the workshop space was taken up by dismantled machinery waiting for the arrival of spare parts. The normal occupation of mechanics in the workshops was the dismantling of equipment in search for usable parts.

It was noted that, since the basic repair and maintenance of equipment--the supposed function of the workshops--was so difficult, considerable managerial effort was being turned to the sub-optional task of improving the storage and identification of the dismantled parts.

Clearly, there is a national problem of road maintenance that is aggravated by the problem of equipment maintenance. Wide-ranging road construction and rural development projects are programmed for near-term execution without serious consideration of the means whereby these might be maintained. At the same time, negotiations are taking place for the provision of more road maintenance equipment without serious consideration being given to how this equipment is to be maintained and serviced. Under the

present system the situation will get worse rather than better, as the new roads will result in an ever-decreasing percentage of adequate maintenance, and the increased number of pieces of equipment will end up occupying the remaining space in the workshops waiting for spares. Normally, equipment lasts for about two years before ending up in the workshops.

The immediate solution to this problems involves:

1. The provision of a workshop that has the correct tools and equipment and formal classes for mechanics.
2. An assessment of the capacity of the workshop in terms of the potential rate of completed work.
3. Provision of an adequate budget and reduced bureaucracy for the procurement of the spare parts commensurate with the estimated throughput.
4. An assessment of the road equipment inventory that the refurbished workshop could maintain and an assessment of the portion of the national road maintenance program that this fleet could undertake.
5. The portion of the national road maintenance requirements that could not be completed by SECOPT would have to be apportioned to the private sector, and a budget specifically set aside for this purpose.

Global recommendations such as these are not short-term solutions, since they involve changes in the way a public-sector institution operates. However, any improvement in the ability of SECOPT to repair its own equipment would have an immediate effect, not only on the state of the road system but also on the need for additional road equipment. In the long-term, however, it has to be kept in mind that at some stage it will be necessary to inject massive funds into the road system just to return them to the level they were in 1986, and that the longer the decision is delayed the greater will be the amount of funding required.

Refrigeration Facilities. A significant part of the cost of container service is the contribution made by the lack of adequate refrigeration facilities. All fresh fruit and vegetables destined for export have to have "field heat" removed at the time of harvest, and they have to be transported in refrigerated units. In the absence of adequate cooling facilities in the area of the farm, the farmers resort to the expediency of using the containers themselves for this purpose. To adequately cool the freshly harvested crop it is necessary to fill the container and then to run the refrigeration unit at maximum power for several hours. The normal reefer container is not designed for this purpose, and running at maximum power results in constant breakdown of the refrigeration equipment. In recouping for this damage by way of transport charges, the carriers are taking on themselves what is essentially a part of the cost of production. There was a body of opinion in the country that considered that carriers were effectively subsidizing the producers.

The serious effect of a system whereby farmers are using reefers to take out field heat, and where carriers are not charging for use of containers in this way, is that the farmer who has made an investment in the required cooling facilities, and who manages to keep containers for a minimum amount of time pays the same charge to the carrier. Thus the more efficient farmer not only pays for his own equipment, but he pays indirectly for the inefficiencies of his neighbors.

Freight Imbalance. The main exports from the country, taking both traditional and non-traditional together, are high-volume agricultural products with low unit prices, while most of the imports are low-volume products with high unit prices. In other words, what goes out is bulky, and what comes in is not. Thus, for the trucking system, for which volume carried and distance traveled are the factors that affect the cost of operation, there is more demand from the exporters than from the importers. The demand is not in balance by a factor of about 4 to 1 (four times as much trucking capacity is needed for export-bound freight than for inbound freight).

The Trucking Industry. Few producers had any overall complaints of the road system or of the trucking industry. In fact, many interviewees expressed the view that the service offered by the road transporters was exemplary. While there was no shortage of horror stories concerning lost and damaged consignment, most exporters treated the current situation with equanimity. They expressed the views that they were stuck with the roads and trucks currently available, and they did not see that either the road condition or the state of the trucking industry affected them directly. The two major complaints were:

1. The cost of trucking was high
2. There was a constant shortage of refrigerated containers for their perishable exports

It was assumed that the cost of trucking was high because the cost of diesel was high, and it was supposed that the shortage of containers was a result of a miscalculation by the shipping companies--the main suppliers of the containers.

The situation was discussed with trucking operators at which time the following points emerged:

- o Most of the nation's exporters of non-traditional products, being exporters of fresh and frozen fruit and vegetables--or of perishables in general--were bound to use one of the major maritime shipping lines because only these provided refrigerated containers.
- o All the major shipping lines operating out of Honduras offered a door-to-door rate. This service included the handling of a consignment from the premises of the shipper to the premises of the consignee. One bill of lading and one invoice covered the whole arrangement.
- o Refrigerated container traffic was purely one-way. Bringing empty containers into the country was not only costly in itself, in that costs of transportation, handling, duties and so on had to be paid, but that while the container was being brought empty from the USA it was losing revenue that could have been found by using it elsewhere.

- o The balance of dry containers was slightly in the other direction--there being more demand for dry containers for imports than for exports. Some groups had tried to relieve this situation by offering importers the use of refrigerated containers.

- o There was a mixture of arrangements between the shipping companies and the trucking companies: some subcontracted the land portion of the transport to a local trucking company, some just hired a cab with a flatbed to take the containers, while others hired a cab only to tow their own container/trailer units, and some operated their own trucking operations. Either way, the shipping line incurred the normal national charge for road transportation.

- o The fundamental shortage of refrigerated containers was being exacerbated by farmers using these in place of adequate refrigerated warehouses to take out the "field heat" from their crops. No penalty was enforced against any exporter who kept a container beyond a minimum free period.

- o The shipping companies considered that the service they offered to the shipper--a low price and all frills--was being offered in order to have the refrigerated containers returned as soon as possible to their more profitable operation in the USA.

- o The offer of a complete service "door-to-door," while offered in an effort to generate business, compromised the carriers into having to truck in and out of locations where the access roads were not otherwise acceptable. This, together with the poor state of some of the paved roads, made a high proportion of vehicle breakdowns almost inevitable. The high proportion of down time, taken with the high cost of imported spare parts for the transportation equipment, served to make road transportation particularly expensive. The high cost of diesel, the low average speeds on the main roads, all contributed to the high cost of road transport in the country.

- o The cost of trucking operations was influenced by the high import duty on spare parts and tires. Those trucking companies that qualified, by being 100% Honduran (the "cooperatives"), enjoyed exemption from the high duties; foreign shipping companies that operated trucking operations were not exempt. These, then, had to pay the high duty or face the cost of exporting their equipment for maintenance and repair. There was thus some incentive to use national truckers, but the issue of liability made it essential for the shipping lines to be extremely selective.

A universal complaint associated with trucking was the need to pay for "vigilancia"--the charge levied on a consignment moving under customs bond. Anywhere between \$50 and \$100 per truck was required to pay for the cost of military and customs escort. Over and above this, the carrier was expected to pay the living expenses of the guard while he was assigned to the

consignment. It was stated that the guard was entrusted with the documents while the goods were in transit, but that there was no requirement that the guard actually travel with the truck. Often this led to delays at destinations while waiting for the guard and the papers. Goods in transit across Honduras also had to pay for this service.

Investigations did not reveal what service was provided by the guard, since he was not required to accompany his charge, other than keep the documents in his possession. Most interviewees felt that it would be sufficient to place a customs seal on the container and dispense with the guard and his cost.

The Rail System

Nobody interviewed during the study made use of the rail system. To begin with, the system did not serve the capital city, and secondly it was considered that the system was operated mostly for the benefit of the major fruit companies. There was a general fear that non-traditional products would be side-tracked when the traditional products required rail transport.

It is certainly true that rail transportation is limited in Honduras to the coastal plain, and has very little penetration inland. For this reason, it was considered prudent not to include further consideration of rail as a transporter of non-traditional products.

Maritime Transport

Containerization. The whole issue of containers in Honduras was a controversial one, and serious clashes have taken place in the recent past between authorities and carriers regarding the cost of this service. It was clear from discussions that the economics and rationale of containerization were not well understood, and it was this lack of understanding that led to the friction.

Containerization was introduced to serve two main functions:

1. At a time of increasing cost of stevedoring labor, to cut down the labor content of loading and offloading operations.
2. At a time of increasing size of vessels, and hence increasing cost of operation, to cut down on time in port by unitizing and standardizing the cargo. This allowed faster loading and unloading of a given volume of cargo.

The advantages were not just for maritime transport, but applied equally for road and rail transport as well. The introduction of containerization served to reduce the cost of transportation and allowed the carriers to compete on the basis of price. Advantages were also realized by the shippers, who found that losses due to theft, pilferage, exposure to weather, damage in handling and so on were significantly reduced. But difficulties come about from the expectation that a cost-effective system in one country is also cost-effective in another country.

The question then becomes one of determining whether the maritime carriers are being allowed to pass on to exporters of Honduras the benefits of their cost-effective system. There are certain factors which make containerization in Honduras basically expensive, the chief of these being the lack of two-way trade. As shown in the section on maritime transport in Chapter 4, three containers are required for export for every container for imports. What is more, there is considerable demand for refrigerated containers for export, but almost none for imports. To enable exporters of fresh fruits and vegetables to get their products out of the country the shipping lines have to take their containers from other more profitable areas, they have to transport these, empty, to Honduras, and they have to wait until the container has been filled before exporting it again. The net result is that the shipping companies have to keep an inventory of containers that is greater than their needs, and the size of vessels has to be sufficient to have space for inbound cargo plus empty containers. In global terms, this is equivalent to saying that the vessels have to be sufficient to carry both imports and exports together in one direction.

Thus the exporting of non-traditional products has a cost handicap on the maritime leg.

Freight Charges. There was a general belief in Honduras that, since Puerto Cortés was essentially a "conference port," that is, vessels that called belonged to one of the major conference groups, the rates being charged for ocean freight were excessive. Analysis did not bear this out, and concluded that the problem was one of incompatibility between service demanded and cost for that service--a matter that has been discussed at length in this report.

The ports of Central America find themselves in a position that is contrary to the conditions that led to the introduction of containerization:

- o they have an abundance of "cheap" labor
- o accommodating "cost-effective" unitized systems and their vessels involves considerable expansion of facilities and operator training
- o capital is expensive and hard to find
- o imports and exports are of an entirely different nature
- o volumes of imports and exports do not always justify the required capital investment, and exports will not always bear the cost of recouping the investment.

All these factors are to be found in the port system of Honduras. The choice becomes: operate a system that uses cheap national resources--make the port labor-intensive--and pay the commensurate excessive charges at destination ports, or invest what it takes to accommodate modern systems and try to make the best use of this investment. It is clearly too late to return to labor-intensive operations in the ports, and anyway, since the major trading partner is the USA, the resulting cost of unloading labor-intensive cargo would make trade impossible. (If there were more trade with other similar countries there might be a case for this approach.)

In 1985 there was a small world surplus of supply of major classes of freight vessels over demand, as follows (Table 5.1):

Table 5.1
1985 World Freight Vessel Demand/Supply Situation
(Million Dwt)

	<u>Supply</u>	<u>Demand</u>	<u>Surplus</u>	<u>% Surplus OverDemand</u>
Fully cellular containerships	18.7	18.1	0.6	3%
Partly cellular containerships	4.0	3.5	0.5	14%
Ro-Ro ships	6.0	5.6	0.4	7%
Conventional General Cargo	74.9	69.1	5.7	8%

Source: Shipping Statistics Yearbook, 1986

While this is only a broad measure of the level of competition within the industry, it is sufficient to indicate that, for the most part, there is a tendency for prices to be kept down. While conference lines may establish rates and publish them, there is no prohibition whatsoever on individual carriers making their own agreements with shippers, and there is no prohibition on non-conference vessels calling at any port. If there were any profit to be made from it, it is certain that independent lines would start calling. Just such a situation occurred at Puerto Limón, Costa Rica, when the volume of freight became great enough to interest independent lines. For the non-traditional exporter, with the overwhelming demand for reefer containers, the introduction of independent lines does little to cut the cost of ocean freight as few of the independents accept reefers.

The following table indicates the comparative rates for a 20-foot container of dry cargo from the various ports of the region to Miami, or an equivalent Gulf port. The table contains a number of assumptions, needed to make the figures comparable, and it is certain that some shippers paid more than these figures and some paid less.

The basic figure is the door-to-door 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.

It is clear that, for the typical case chosen, Honduras is far from being the most disadvantaged country in the region; in fact, Honduras enjoys the lowest overall door-to-door charge. Within the overall charge, however, the costs per container for port and handling charges are higher than for most other ports in the region. In fact, only Costa Rica levies higher port charges.

Table 5.2
 Typical Costs of Moving a 20-foot 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**
CR	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**

* Atlantic or Pacific port.

** Los Angeles

*** Routing through Santo Tomas de Castilla in Guatemala.

Source: Parsons Brinckerhoff International, field interviews.

177

Notes for Container Costs Table.

1. Door to US port charges were based on actual quoted rates for a 20-foot container of typical non-perishable product. Origin was taken as within a 40-km radius of the capital city, and destination was taken as clear of the port boundary 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 by deducting all other transport-related costs from the door to US port charge.
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 which were 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 calculations 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 connectin 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 Tomás 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 could achieve. To attempt to negotiate 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.

Port Charges. The ports of Honduras are clearly in a bind: they have invested considerable moneys over the last few years in port facilities that are surplus to requirements. The National Port Authority (NEP) is responsible for the operation and maintenance of four major Atlantic ports and one major Pacific port. The costs of these ports have to be paid by charges to the users, the importers and the exporters. The exporters are struggling to remain financially viable, and any reduction in port charges would make their goods more competitive overseas. When port charges rise exporters withdraw from the business and go into debt; the resulting fall in export (and import) cargo makes it difficult for the NEP to meet its costs, and so charges go up; this results in a further round of dropouts, and the vicious circle continues.

Much discussion took place during the study with representatives of both the Port Authority and the port users. The main conclusion were:

- o the port charges as contained in the published tariffs were structured to cover the total costs of the ports.
- o the port charges were not always being applied correctly (for example, charges for equipment levied when the equipment was not actually used).
- o the port charges tended to be related to the characteristics of the vessel and not to the volume of cargo handled.

All these factors tended to raise the cost of using the port.

The benefits that the establishment of a port brings with it normally exceed the simple benefit of more efficient handling of cargo. Ports create jobs, they encourage industrial growth, and supply opportunities for earning foreign currencies. This relationship is one that is generally appreciated, and results in few ports in the world being required to absorb all their costs--there is almost always some level of assistance from central authorities or government. In the case of Honduras, the level of this assistance appears to be minimal, and there is reason to believe that the port is expected to act as a source of additional revenue. It is certainly the case that the Port Authority is not entirely free to adjust its own rates.

It is, therefore, clearly necessary for an analysis to be made of the economic value of the ports to the country. The ports should then be required to recoup those costs that can reasonably be allocated to port activities, while the remaining costs should be accepted by the central government. It would be purely illusory to expect that such a fundamental realignment of the national budget would be undertaken quickly or without much opposition. Two actions could be taken, however, which in the short term could serve to reduce the cost of using the port.

The first of these would be for the Port Authority to mandate that charges only be made for services actually supplied. The second would involve a reworking of the port tariffs to bring them more in line with tariffs charged at other ports.

In determining where port costs should be applied as charges, it is normal to accept that some costs are a function of the size of the vessel, while others are a function of the volume of cargo loaded or unloaded. While it cannot be claimed that there is any standard system of port tariffs, there is a general agreement that most of a port's cost are related to the handling of cargo. Thus

there are normally some fixed charges that are a function of the characteristics of the vessel, while the bulk of the charges relate to the quantity and type of cargo.

Cargo volumes, however, can be unpredictable from year to year, and so income from charges related to cargo can be similarly unpredictable. Where a port is served by a number of regularly calling liners, it is the number of ships that is more predictable. The temptation is thus for a port to rely for its revenue on charges against the ship.

The effects of such charges include:

- o the port is effectively charging cargo in the vessel's hold that is destined for other ports
- o the shipping lines find themselves penalized if they offer a more frequent service
- o the shipping lines find themselves penalized if they introduce larger vessels so as to accommodate seasonal peaks in demand.

There thus arises the conflict between the shipping companies and the exporters: a more responsive service is demanded, but the structure of the port charges makes it far more expensive for a shipping company to respond. If costs are to be lowered by the provision of the most appropriate service, the tariff structures will have to be adjusted so as not to impede with normal decision making practices in the maritime transport industry.

Air Transport

This topic was discussed fully under "The Role of the Government."

It cannot be denied that, in a country where the cost of transportation can absorb as much as 50% of the income from producing an average export product, transportation plays a critical role in the economy of the country. It is also indisputable that, for the future economic well-being of the country, the competitiveness of the country's exports will have to be improved. For a particular class or quality of merchandise, the competitive factor is invariably the cost. In terms of transportation, the competitiveness can be improved by, either, reducing the real cost of transportation or, by reducing the proportion that transport cost occupies in the total cost of the products.

Transportation cannot be considered as merely the means whereby a commodity is moved from one point to another: it is, instead, a complex interaction between a large number of factors, the physical movement of the product being only one of these. It is also misleading to consider the cost of transportation in the abstract: there is no baseline against which to compare a nation's transportation cost to determine if it is relatively cheap or expensive.

In fixing the cost of transportation three groups have responsibility for entirely different aspects, the lowest overall cost being achieved when each of the three groups performs to the limit of the resources available to it. It is important to establish the limits of this responsibility if recommendations for improvement are to be targeted to the right group.

The government has the responsibility for providing, or for enabling the provision of, those items of infrastructure that could not be provided by individuals or corporations. The government also has the responsibility for ensuring that legislation and institutional requirements do not impede the carriers in the efficient practice of their trade. For efficient operation of carriage services, the infrastructure has to be appropriate and has to be of good quality.

The carriers themselves, operating in an environment of fair competition, have the responsibility for operating the transportation modes as economically as possible. The carriers have to achieve the optimum level of efficiency within the framework of the available infrastructure, the legal and institutional setting, and the demand for their services.

The exporters have a responsibility to get their goods to the best markets, making the best use of the transportation modes available.

In the case of Honduras, all three groups have ample opportunity for reducing the economic cost of transportation, and thus improve the export potential for non-traditional products. The relative importance of the three groups in terms of ability to affect cost are: firstly, the producers, secondly, the government, and thirdly the carriers. The main conclusion of the study was that the carriers did not have it in their own hands to significantly reduce the cost of transportation.

It was clear from the interviews that were undertaken that exporters were, with very few exceptions, unaware of the factors that affected transportation costs and of the groups that controlled the factors that affected the costs. The most obvious inconsistency was the inability to relate what was considered to be an excellent trucking service that was provided by the major

steamship companies with the high cost of the service. It was not clear to the exporters that it was their demand for quality in carriage that had driven up the prices, and that prices would only go down when a lower standard was demanded.

For most of the transportation modes the complaints received could be reduced to one of cost. Shortages, inefficiencies, irregularities, unpredictabilities, and so on could all be associated with a cost, and ultimately it was a cost that had to be paid by the exporter to get his product to market. Thus the total cost of transport to the exporter was not only what he paid to the carrier, but also all his losses experienced in the process of exporting. As an example of this: almost all exporters are self-insured, that is, if they lose a shipment--for whatever reasons--they bear the cost of this themselves. Since they are often unable to pass this cost on to the consumer the cost has to be taken out of margin. The cost to the nation is thus one of increasing private sector debt and bankruptcies. The recent history of private sector debt is that it quickly becomes public sector debt and hence national debt.

Thus, proposals for reducing the national cost of transportation can be reduced to an exercise in correct cost allocation--or national cost accounting--followed by an analysis of means of reducing the correctly allocated costs.

The Role of the Government

Highways. The extent and quality of the physical infrastructure in the country has a direct bearing on the cost of transport. In the case of Honduras the highway statistic is 0.16 km of road per square kilometer. Considering the low average population density, the road penetration represented by the

statistic is probably just about adequate. The statistic says nothing about the quality of the roads, which is known to have a poor average on the unpaved sections.

It is reasonable to assume that the highway network in position at the time of the study will not have any major alterations in the near future. While the work in the frontier area with El Salvador should be completed by 1992, a major paving project to improve rural penetration is not likely. It is also not necessary.

For Honduran exporters and truckers, the state and disposition of the roads was a fact of life. The main request was that roads should be kept passable, not that the design should be improved. However, much of the reticence in complaining of road condition was due to the prevalence of self-insurance. When questioned, most producers of fresh fruit and vegetables agreed that a significant part of a shipment could be bruised if carried over a bad road. They accepted this loss as part of the cost of doing business. Similarly, the owners of trucks complained of the high cost of imported spare parts, similarly considering this factor as part of the cost of business. Both costs could be significantly reduced if the road surface were improved; harvest losses could be reduced if existing accesses could be made operable in all weathers.

Unsurfaced roads in themselves are not unacceptable: there are undoubtedly more unsurfaced roads in the world than there are surfaced roads, so most of the world's trade passes over them. What unsurfaced or unpaved roads require is regular maintenance and grading. Paving and surfacing do much to eliminate this cost, but in areas where labor is cheap and plentiful, road maintenance programs can be executed extremely economically. Recent road maintenance and repair projects in the region--where private sector contractors were used to repair an existing section of road

and then maintain it for a fixed period--demonstrated the economic feasibility of the system. The maintenance program can be made even more cost-effective if the design of the rural road is improved: drainage channels alongside, culverts and bridges overstreams, protection against slides and washouts, gentle curves and gradients, all these serve to lessen the damage inflicted by the elements and the users.

As to the cost of "vigilancia," it was concluded that this was a direct cost impediment to competitiveness overseas, and an impediment to a cost-effective organization of land transportation. The cost charged against a consignment moving under customs bond was a significant percentage of the total cost of transport, and discouraged exporters in Tegucigalpa from completing their customs formalities at the capital.

The normal practice elsewhere is to place a customs seal on each consignment moving under bond, so that cases of tampering would be clearly identifiable. Any charge over and above this is merely a tax on trucking. While both carriers and exporters promoted the concept of a simple customs seal, all were less than optimistic that the authorities would demonstrate the trust needed for such a system to work: there was much speculation and "what if" scenarios.

It is not possible to do business in an environment where it is assumed that every member of society is a potential criminal. This is an extremely costly concept, and involves erecting physical barriers between every member of society and every opportunity for criminal activity. It is far more effective to enact the legislation, with appropriate penalties, to enable commerce to take place, and to punish the few who choose to transgress.

Ports. A major national investment is represented by the ports at Puerto Cortés, La Ceiba, Castilla, and San Lorenzo. The function of government with regard to ports is very similar to its function regarding highways: the provision of an appropriate facility for effectively and economically meeting the demands placed on it by the carriers. (It is the carriers who are essentially the users of the ports.) Unlike the highways and railroad, ports also represent an interface between national and international interests.

There is no doubt that, in the provision of ports, the governments and the National Port Authority have not been reluctant to invest funds where it was considered that these were needed. In fact, the country's endorsement of port facilities is enough to last it for some considerable time.

It is also indisputable that the ports have some correctable deficiencies, of which the authorities are well aware. These include such matters as the correct allocation of port charges, some inefficient and wasteful stevedoring practices, problems of traffic flow around Cortés, the inadequacy of the unpaved areas within the port, the deficiencies in the servicing, repair and maintenance schedules of the port's equipment, and so on. The port's management is actively engaged on an expansion project, and such missing items as a container freight station--for packing and unpacking containers--will be constructed as part of the next stage of expansion. Since the port was the owner of its own dredging equipment, the problems of depth of water would receive the attention it needed. All in all, it was felt that the Port Authority had in hand most of the plans required for improving operations within the port.

The main issue that requires resolution at the nation's ports is the one of port charges. It is not altogether relevant that the port charges at Cortés are high, if the charges reflect the quality of the service offered in comparison with other ports in the region. It is possible to charge highly for an efficient service if the result is an overall low cost per ton handled. Analysis shows, however, that the cost per ton is also high. This is clearly a cost impediment to exports, and the effective contribution of port charges was shown in Chapter 5.

In the matter of port charges generally, it has to be borne in mind that international shipping companies develop systems to enable them to provide cheaper and more competitive services. Containerization, Ro-Ro, barge systems, and all the specialized bulk handling techniques were all introduced as attempts to reduce the transportation component in a product's cost. In determining the economics of the new system, assumptions had to be made regarding port charges: it was assumed that all ports, to a greater or lesser extent, charge in proportion to the value of the service offered. For ports where this was the case, the new system was competitive; for ports where this was not the case, rifts developed between the ports and the shipping lines.

The ports of Central America, in general, have an abundance of what is considered cheap labor. Most modern unitized systems were developed to reduce the labor content in loading and offloading operations, based on the situation where labor was becoming prohibitively expensive. For Central American ports to handle the newer systems, more expenditure had to be made on

expensive equipment, using hard-to-find foreign exchange. Thus the port tariff structures in the region favor the use of the older, more labor-intensive, systems, and discourage the use of the newer systems. There had been thus established a considerable conflict in operating philosophy between the ports and the shipping lines.

The shipping lines are caught between the capital-intensive demands of the users in the USA, Europe, and Japan, on the one hand, and all the ports in the developing countries, on the other hand. It would be a mistake for the ports in the region to do other than charge, as accurately as may be determined, for the actual services provided. Any other approach would cause a distortion in the operating economics of the shipping lines, and would lead to economic services not being made available to the Honduran exporter.

Airports. The function of the government in regard to air transport is to provide the basic infrastructure to permit this to function competitively. In the case of Honduras, airports of international standard have been constructed at Tegucigalpa, San Pedro Sula and La Ceiba, with all the requirements of such a facility fairly adequately represented. In spite of this, much criticism has been leveled at the providers of airfreight service for the lack of facilities for the export of perishables. The question is: to what extent is it the government's responsibility to intervene in the use to which the facilities are put?

In the case of Honduras, any attempt to answer this question has to take into account the fact that there is not one entity in

charge of the nation's air transport: control of airport runways, buildings, administration, customs, immigration, security, schedules, and traffic control all came under the responsibility of different authorities. Thus, any program of general improvement involves in the first place a massive coordination between unrelated groups. The inefficiencies inherent in such a system were well understood in Honduras, and the legislation to establish one group as responsible for all aspects of air transportation was already being debated. Once the central authority is established, solutions to air transport problems can more easily be implemented.

As with the nation's ports, the nation's airports should have all the facilities needed for them to be used as intended. It is indisputable that the airports are intended to be used as freight facilities, so that aspect should not be ignored in terms of equipment and facilities: there must be sheltered storage space, and there must be appropriate handling equipment.

The remaining issues are those of refrigerated storage facilities and adequacy of air cargo service. Without refrigerated facilities located near the airport, much of the cargo that is best suited for airfreight--low unit weight, high unit price items--just cannot be produced. A major source of national revenue is thus lost. Refrigerated warehouses are sophisticated facilities, requiring considerable expertise in their design, their construction, and their operation. There are many private-sector firms who are more than adequately qualified to perform all three functions. Refrigerated warehouses are business ventures, with revenue being gained from charges to the

users. They are the additional costs involved in the act of transportation, and should thus not be considered the province of government: when costs are in controversy, it is always the most difficult for government to pass legislation that controls itself. Encouragement should thus be given to private sector companies to construct and operate such refrigerated facilities as are required.

Honduras has an acceptably efficient national passenger airline, but one which has a poor record in dealing with freight. Private-sector airlines--all foreign--are also criticised for their record in dealing with air freight. Petitions and public meetings have done little to help. As matters stood at the time of the study, little improvement could be expected in the air freight situation.

In the case of air transport we have the situation of matched risks: the exporter is not willing to face the risk associated with a deficient air service, and the air freight services are unwilling to provide a service in the face of absent cargo. It is interesting to note that the producers of perishable products that can go by sea are willing to face the risk of a shortage of refrigerated containers, but the producers of flowers are not willing to risk increased production without assurances of increased air service. In both cases, the carriers--the shipping lines and the airline--have established what they consider to be the maximum sustainable level of service in the absence of further assurances. For a solution to this impasse it is necessary to look at the legal framework within which business has to function in Honduras.

The role of government in transportation is not purely that of providing physical infrastructure, but also in providing a legal and institutional environment that permits the economic operation of transport facilities. The major environmental obstacle encountered was the legal one: risk is typically minimized in other countries by the use of contracts of carriage, entered into between the shipper and the carrier. Some use of contracts was made by organizations in Honduras, more often between major producers and major truckers, but also between major maritime shipping companies and truckers. It was not normal for the typical exporter of non-traditional products to enter into a contract with a carrier ahead of time. The request for transport was often made just prior to harvesting. While this practice will be discussed later, it is relevant to consider here the role of government in producing a situation where contracts are avoided.

There is a close correlation between the history of contract law and the history of international trade: security in trade was greatly dependent on enforceable contracts. Trade without contracts places all the advantage in the hands of the strongest party. For contracts to work, however, the outcome of default has to be fairly predictable, and the cost of a claim has to be reasonable in comparison with the value of the merchandise. In Honduras exporters expressed reluctance to involve their operations in legal formalities. They avoided as much as possible any action that would require settlement in a court of law. The impression was that the procedure was expensive, time-consuming, and often with unpredictable outcomes.

For transportation systems to operate efficiently there has to be legal parity between the shipper and the carrier: neither must be allowed an unfair advantage over the other. For the most

part, this parity does not exist in Honduras, and the major disadvantage is that of the shipper--the owner of the merchandise. Because of the absence of contracts, there is very little liability borne by the carrier.

To improve the situation, the government needs to look at the process for dealing with contracts in the country. For trade to be given the best chance to improve, contracts between parties must be routine, but the methods of settling disputes must also be routine. The responsibility of government in this respect must be to encourage the use of contracts, but it should also set up procedures whereby the contracts can be fairly, quickly, and economically enforced.

Returning to the impasse over airfreight, three issues are waiting on a first move:

1. Neither the national carrier nor the private-sector carrier will consider providing additional service until the shippers guarantee the cargo.
2. No user of air freight will increase production until one or other of the carriers has guaranteed space (in fact, a number of producers have cut back on production to reduce their risk under the current regimen).
3. Without a solution to 1 and 2, there is not enough information available to enable any refrigeration company to design, construct, and budget for operating a warehouse facility.

The only solution is one of organization, and the group requiring the organization has to be the one that has the potential for wielding the maximum power: the exporters. The first thing to do is to determine amongst themselves how much cargo volume they represent; if possible, they should also determine how much incoming cargo they could attract. They should then determine for themselves the cost of chartering their own plane on a schedule that best suits their purposes. If they represent enough demand amongst themselves for independent chartering, they should contract amongst themselves for supply of cargo, and they should agree to a production schedule. They can also agree to supply demand for a refrigerated warehouse. If, in the light of this, there is no response from the national airline or from the other air freight company, then the group can go ahead and contract with any other group for the provision of the charter service.

In this way, the stand-off between the carriers and the shippers is removed: the shippers have removed their risk by providing their own insurance, or their own assurance of service.

The real point at issue here is not one of air freight or no air freight, but rather one of creating an environment that encourages cooperation for business purposes versus the laws of the jungle. In his study of the Costa Rican air freight situation, the consultant, Wendell R. Stevens, stated:

"Shipper, agent and carrier communication and trust have deteriorated to an unworkable level. An executive of exceptional ability and stature may be able to guide the industry back to a state of mutual trust and confidence."

A similar situation has arisen in Honduras. Our survey showed that the lack of trust and confidence pervaded the whole of the business fabric, and crippled the ability of groups with similar interests to get together to solve their problems in concert. This is not to say that the business community of Honduras is operating in a cloud of acrimony and mistrust: just that there is a marked reluctance to collaborate for genuine mutual benefit.

It is not suggested that contracts be introduced at every stage of trade in Honduras. There is no need for business to be made any more complicated than it is. It is, however, felt that the business community's ability to act together to obtain better service would be improved if the consequences of binding agreements were consistent and were better understood. Without the formation of larger groups to purchase transportation services, the Honduran exporter will remain at a disadvantage in the markets of the world.

The Role of the Producer

It was not understood by most interviewees that their own decision, as much as anything else, influenced the transportation cost. Transportation was seen as a basic commodity that should always be available in the quantity and quality demanded, but at a price that ensured that the product reached the selected market at a competitive price. The impression was given that if these requirements were not met, then the government should step in and

also serve to make other products unprofitable. As an example of this phenomenon we would give the case of a new exporter of perishable products demanding refrigerated containers at a time of existing peak demand. In this situation, while the charge for the containers will not necessarily increase, when the quantity of containers is relatively fixed, loss will be experienced by some producers in their being unable to acquire containers.

2. The volume or quantity. All other factors being equal, the per ton cost of transport can be reduced if the quantity shipped is increased. There is a distinction that has to be made between increased marginal demand, where costs can be increased, and true bulk handling. One additional producer, acting as an individual in demands for transport, is a user at the margin--even if the product being shipped is the same one being shipped by all the others. Where a significant volume can be handled at any given point in the transportation chain, and where there is one representative of the shipper and one representative of the carrier, then the nature of the transportation changes and the costs can be negotiated downwards. As an example of this one can look at the pineapple situation in Costa Rica: a number of small producers have entered the export market, and a major fruit company has planted a massive acreage. The individual producers are producing at the margin and will eventually push up the cost of transport; the major company has chosen the quantity so that fleets of

ensure that they were met. This fundamental misunderstanding led to the formulation of demands by groups of producers that were directed at entirely the wrong targets--chiefly the government.

The transportation system within a country is a given: the system changes very slowly, and it does so mostly at the demands of the users. When a producer is planning a product for export, the factor of transportation has to be included in the planning. It is erroneous to consider, merely because natural resources permit the production of a certain commodity, that that item is therefore a candidate for export. The process for determining the exportability of a product is long and complicated, and was not commonly followed through by exporters. The vicious circle that operated in this case was: there was so little margin to make in exporting common non-traditional products that exporters were unable to afford marketing and logistics studies, and so they were forced to perpetuate the same mistakes, and so perpetuate the small margins.

It is not the purpose of this report to serve as a manual for export marketing studies, but so far as they bear on the cost of transportation, the following points require consideration:

1. The product. As mentioned, the ability to produce a product is no automatic qualification for a place in world markets. Any new product makes an additional demand of the transportation system. Under some circumstances increased demand helps reduce the transport cost. In many others it only serves to put the cost up--for all the users. Thus an export product unwisely chosen may not only be unprofitable, but it may

trucks can be contracted and refrigerated ships can be chartered. The pineapples from the two groups of producers are destined for the same markets; the price demanded by the major producer will set the price for the smaller producers, and so the margins for the smaller producers will be far smaller than for the major producer.

3. Origins and destinations. The discipline of transportation logistics requires complex analysis. The main objective of the exercise is to make the margin remaining for the exporter as large as possible. The analysis involves the balancing of quantities, times, different markets, alternative transportation modes, and mixes of products until the maximum margin has been identified. In the case of Honduras the main export market was the USA; it was normally assumed that exports meant the USA. When exporters were asked if they had investigated markets further afield it was found that they had not. One of the main advantages that Honduras has over other countries is its Atlantic and Pacific Ocean access: to export from this country in only one direction is to ignore a major potential. It is not inconceivable that markets exist for Honduran products as far away as Australia and the Middle East. Interviewees tended to consider that transportation costs to such regions as prohibitively expensive, without considering whether local prices obtainable for Honduran products might not justify the extra cost. Where there is a considerable amount of one-way traffic, bargains may be struck by providers of cargo in the

return direction: there is a Far East connection for imports by way of San Lorenzo, though very little gets picked up as exports. It might be possible to arrive at a creative negotiation by supplying cargo for these vessels so that they could return directly to the Far East. The transportation cost to cross the Pacific can, under the right circumstances, be less than the cost to ship to the USA.

4. Marketing. Selling anything in the USA is a difficult and potentially expensive exercise. Selling basic food commodities--fruits and vegetables--is not less difficult than for manufactured items. Basic foods are difficult to differentiate as to origin, and so it is hard to establish any brand loyalty. The major fruit companies have managed to produce just the right shape, size, and consistency of banana to capture the optimum market, and in doing so have even managed to associate brand names with the fruit. The cost of the required research and development has been huge, and the continuing promotion also consumes considerable funds each year. There is now considerable effort being expended in trying to put labels on all fruit and vegetables, and for the companies that do this to promote their product by name. The competition in this field is fierce, and fruit and vegetable growers without the resources for this type of promotion will find it hard to establish themselves in the market. Honduran exports are indistinguishable from the same exports from the rest of Central America and the Caribbean. This means that the first country that promotes its products

as a whole, and can produce a consistent range of products that are considered desirable by the U.S. consumers, this country will stand to corner a large part of the market. Even at the level of the individual exporter, much can be done to increase margins by targeting the product and its package to the intended consumer. Exporters have to realise that selling in the USA is not a larger version of selling to Honduras.

The Carriers' Role

Under this heading will be considered all those who operate in response to a demand for transportation services:

- o trucking companies
- o maritime shipping companies
- o air freight companies

The rail freight system will not be considered here as it has a very limited role in the export of non-traditional products.

In a fairly open and competitive market, such as is the case of transportation in Honduras, there is very little in the way of profits. Truckers were adamant that rate-cutting should be stopped and that the government should step in and fix rates. Only in this way was it felt that the trucking industry could provide a secure living for its operators. It had to be pointed out that transportation was a service that was provided to exporters, and that the trucking industry would only be healthy for as long as exports were healthy. Rate-fixing inevitably

established prices that enabled the least efficient operator to make a profit, and thus reduced any incentive for increased efficiency by those who were enjoying the benefits of the fixed rates. With a secured income, there would also be no incentive to provide the shipper with any quality of service, and so the shipper would end up paying for more losses and delays. (It should be remembered that shippers in Honduras considered that the service provided was good.)

The carriers in Honduras had in their own hands the means of reducing the costs of transportation, and so increase the demand for their services. They could:

- o Cooperate with the shipper. It was found that carriers did not take any hand in assisting shippers to consolidate or rationalize their shipments. There was no system of offering bulk discounts if several exporters collaborated, and there was no discount offered for delaying harvest until after the peak demand.

- o Introduce training schools for drivers and mechanics. The team was informed that the major shipping companies that used local transport services kept a list of acceptable and proven drivers. They did not consider that the general level of ability of drivers was sufficient to entrust their consignments to just any driver. Exporters complained that drivers had no concept of care for the cargo, and they had been known to turn down thermostats on refrigerated containers to

conserve fuel. The modern truck is a complicated and expensive piece of equipment, and becomes more complicated each year. To entrust such equipment into the hands of someone who does not understand the complexities could lead to expensive problems. It is now accepted practice in other countries that truck drivers should receive basic instruction in care and maintenance of the equipment and in care of the cargo. With better drivers, operating and maintenance costs can be reduced, and damage to cargo can also be reduced.

- o Introduce management seminars for operators. There is a great deal that managers of trucking companies could learn from experience gained in other countries and from a systematic and formal analysis of the trucking business. We would not want to give the impression that operators in Honduras do not understand their business, since they are clearly the experts on the subject, but where the environment is competitive it has been found invaluable to supply managers with the tools to analyze their industry and to plan their activities.

It is recognized that these comments apply for the most part to the trucking industry, apart from the recommendation for more shipper/carrier cooperation. The rationale behind this is that maritime shipping companies and airfreight carriers are highly sensitive to costs, with the result that the most effective way to effect a change in the service provided is by the indirect means described elsewhere in this section.

HONDURAS

CHAPTER 6

RECOMMENDATIONS

CLASSIFICATIONS

Basic Recommendations. There are four basic groups of recommendations that result from the study of export of non-traditional products from Honduras, falling under the general headings of "institutional" and "physical":

Institutional Recommendations

- o Correct some of the cost distortions that have worked their way into the system.
- o Introduce changes to the current system of contract law to enable contracts to be easily entered into and for their disputes to be quickly, cheaply, and consistently resolved.
- o Introduce education programs at all levels to enable the people of Honduras who are involved with the export of non-traditional products to produce and market these products more effectively.

Physical Recommendations

- o Bring the transportation infrastructure up to a level that will permit economic operation of the transportation modes.

These basic recommendations represent the four categories where it was found that there were restraints to the export of non-traditional products. Within each of these categories there are specific programs which, if implemented, could contribute to the goal of the recommendation. The method used to calculate benefits is described in Appendix B.

SPECIFIC RECOMMENDATIONS

The Cost Distortions

There are cost distortions present in the system that will need to be corrected. The recommended actions to correct them are:

- o Abolish the "vigilancia" charge. This will need to be abolished and an acceptable system of customs seal introduced. The program will require the preparation and implementation of the appropriate legislation. The cost of vigilancia is included in the \$23 million for land transportation shown in Table B.4. For a typical journey from Tegucigalpa to Puerto Cortés the charge could be as much as 30%, but would only apply to a consignment bonded in the capital. If the annual vigilancia charges came to about \$2 million, then the removal of this could generate as much as \$8 million in new exports.

- o Remove high import duties on spare parts for trucks operated outside the "cooperative" system. These should be removed for heavy equipment used in the trucking industry. Such duties amount to the equivalent of an export tax when they get passed on to an exporter. Of the \$23 million spent by exporters on trucking, about \$4 million would be spent on spare parts and tires. Removing a 27% tax on spare parts would release about \$1 million. If all of this were to be passed on to exporters, exports could increase by \$4 million.

- o Revise the port tariff structure. This will need to be revised to bring it more into line with tariff structures used elsewhere, which emphasize tons handled, rather than ship characteristics. It is expected that this measure will allow the shipping lines to provide a more efficient service. Of the \$78 million paid for sea freight, it is possible that overall rationalization could yield just over 1% in saving, or \$1 million. Exports could be expected to increase by \$4 million.

- o Reduce the port charges. The level of port charges should be reduced to be commensurate with the services offered. This would require a program of legislation to enable the government to adopt some of the ports' expenses as being in the national interest. At present, non-traditional exporters pay \$23 million in port dues. Part of these charges arise from direct non-adjustable costs, such as labor and fuel. Perhaps 15%, however, is discretionary--capital and financing charges, for example--and could be assumed in the national interest. Reduction of port charges by 15% could result in export increases of the order of \$21 million per year.

- o Abolish the 30-day limitation on bringing in container chassis and trailers. This should be abolished. It is costing the country of the order of \$1.5 million per year, which would be entirely eliminated if the limitation were to be removed.

- o Correct abuses in port charges. No major program is required to ensure that port tariffs are correctly applied, as published. As a practical measure, it is recommended that the National Port Authority appoint an experienced port employee to investigate claims of overcharging. It might even be possible for a transportation users' group to employ its own claims inspector. If 5% of port charges are incorrectly applied, the annual overcharge could be as much as \$1.2 million. Removal of these could result in an additional \$4 to \$5 million per year.

Transportation Infrastructure

The benefits of improvements in transportation infrastructure normally extend far beyond the benefits that would accrue to the export of non-traditional products. For that reason the recommendations have been limited to those with benefits directly applicable to non-traditional exports.

- o Introduce a program to upgrade the level of rural road maintenance and to keep it at the higher level. Estimating the cost for such a program was not attempted because the extra effort would come out of improvements to the current system plus the cost of new operations. As a first step, it is recommended that some consulting

assistance be given to analyze the existing maintenance program and to determine the optimum level of operation. The expected savings would come from reduced need for expensive spare parts, reduced down time, and quicker journey. If such a program could reduce the cost of land transportation by 5% (\$600,000), exports would be expected to rise by \$2.4 million.

- o Construct a network of container freight stations. These would permit the consolidation of cargo for export and the unpacking of containers for distribution. The net effect would be a more efficient use of containers and a reduction in peak demands. As a start, a container freight station should be constructed in each of these locations:

Choluteca
Tegucigalpa
Santa Rosa de Copan
Olancho

A container freight station is being constructed at Puerto Cortés by the National Port Authority. The program would involve design of the structures, location, construction, operation and promotion. The analysis for the determination of dimensions would require some investigation into the potential demand at each location. It is recommended that a budget of \$500,000 be allocated to each station. Costs of operation would come from user charges, but a promotion budget is included in the \$500,000. For the future, possibilities of locations in Olancho and Gracias a Dios departments should be investigated. Benefits would arise mostly in the trucking sector, and could reduce the cost of transport. It should be pointed out that container freight

stations are used by domestic shippers, so that the total benefit would be greater.

- o. Construct public refrigerated warehouses at strategic locations. These would be to refrigerated produce what the container freight stations would be to dry produce. It is recommended that the initial units be constructed at these locations:

Choluteca (principally to serve the fishing industry)
Tegucigalpa (at the airport)
San Pedro Sula (at the airport)
Puerto Cortés (in the port area)

A preliminary budget of \$1,400,000 should be allocated for the design and construction of each unit, though the sizes may vary considerably, depending on estimated demand. Operating costs should come out of user charges. The benefits would include a possible 5 percent reduction in the transportation cost of refrigerated products, and would also permit the export of produce that are now not exported by air because of the lack of such facilities.

Contract Law Amendments

It is recommended that legal environment for business in Honduras be made more amenable for the entering into and settlement of contracts. In practical terms, it is not recommended that the legal system be overhauled, but rather that some small programs be introduced in a piecemeal fashion. The recommended programs are:

- o Introduce 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 operations 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. The costs of the program were not estimated, but it was determined that the most significant part would be in the promotion of the system.

- o Form exporters' groups. The establishment of one such group under the management of the Honduras Transportation Users' Group (COHUTI) was already under way at the time of the study. It was intended that a negotiating team be set up to acquire preferential rates for members of the group. While the organization of the group had been well thought out, it was considered that a weakness lay in the contractual arrangement between the group and the members: there was no commitment on the part of the exporter, and so 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 volume, the potential for freight negotiations is quite considerable, and could reduce the transport cost by up to 25 percent.

- o Form an exporters' representative group based in Miami. Part of the weakness in the average exporter's agreements lay in his contract with his broker in the USA. It is therefore recommended that a program be instituted to establish a legal framework for responsible representation of the Honduran exporter in the USA. The possible benefits are large if the group is able to secure better prices for Honduran exports, particularly fresh fruit and vegetables. The nature of the representation could be a Honduran Exporters' Association office in Miami, with three or four permanent employees, whose function would be to verify condition of cargo arriving at the port and to seek potential buyers. These employees would spend a year or two in Miami learning the details of the import/export business, before returning to Honduras to assist one of the exporters' associations. Once the legal formalities had been established, a budget of approximately \$300,000 per year would be adequate for the program.

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 Honduran truck drivers be set up in Tegucigalpa. This should be a collaborative project between the Honduran trucking cooperatives, manufacturers

of trucks, and an enabling agency such as USAID or FIDE. 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 Honduran mechanics be established in Tegucigalpa 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 a diploma 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.

- o Classes in group problem-solving techniques. It is recommended that a firm of consultants who are experts in group dynamics and problem-solving be hired to instruct a seed group of selected individuals. It was the overwhelming opinion of the study team that there was no shortage of individuals in Honduras who were highly qualified to solve the problems of exports and transportation, and there was also no shortage of meetings at which these individuals discussed the problems. What was notably lacking was the ability to take a problem and to solve it by coming up with a realistic plan or program. The function of the seed group of Hondurans who had been trained in group problem-solving would be to attend the meeting at which the problems were to be discussed, and to take the attendees through a logical problem-solving sequence to arrive at solutions. The benefits of such a program would not be limited to the field of non-traditional exports, and the effective cost reduction or volume increase that might result is impossible to determine. The program would, however, have the incalculable benefit of putting into the hands of the Honduran people a tool for assisting them to solve their own problems.

These recommendations have been the result of an in-depth look at the problems being faced by the exporters of non-traditional products in Honduras. It is clear that these recommendations have a more profound goal than would result from a more traditional approach of recommending that funds be allocated to capital investments and improvements. On a closer analysis of such proposals during the course of the study it was realised that the problems of transportation and exports were more deep-seated, and that cosmetic adjustments would have no long-term benefits. It is confidently expected that the implementation of the programs outlined to achieve the four basic recommendations will achieve long-term and lasting improvements in the competitiveness of Honduran products in overseas markets.

HONDURAS

APPENDIX A

NATIONAL ECONOMY

ECONOMIC OVERVIEW

Honduras, after Haiti and Bolivia, is the country with the lowest per capita income in Latin America and the Caribbean. The reasons for this poverty are many, but a significant contribution has been made by a history of political instability, repeated coups d'etat, continuous intervention by the military in civil government, and the effects of foreign intervention in the country's economy and politics. As an indication of the history of disruption, it is pointed out that when the current constitution was ratified in 1982, this was the fifteenth such constitution since independence in 1824.

From 1980 the economy of Honduras has been practically static. The gross domestic product (GDP) rose only by 7.2% during this period, while the population rose by 22.7%, resulting in a net drop in GDP per capita over the six year period of 12.5% (from \$359 in 1979 to \$314 in 1985). During the same period, unemployment rose from 15.2% in 1979 to 24.5% in 1985.

Agriculture is the key economic force, accounting for about 30 percent of GDP, and 45 percent of employment. Key Honduran

exports of coffee, bananas, wood and frozen meat account for about 70 percent of exports. It is estimated that more than 61 percent of the population lives in rural areas, and about 75 percent of the population relies for its income on agricultural activities.

Cotton used to be one of the important agricultural crops, but is now produced at a much reduced level. Tobacco, maize, beans, rice and sugar are grown mostly for domestic use, but small quantities are sometimes exported. Cattle raising is important and exports of both meat and livestock have been growing. About 45 percent of the land is forested, and timber is a major export.

Honduras has considerable reserves of silver, gold, lead, zinc, tin, iron, copper, coal and antimony; but only silver, gold, lead and zinc are mined and exported. Considerable offshore exploration for petroleum is in progress.

Local industries are small, and turn out a range of consumer goods, processed lumber and agricultural products.

The government's promotion of increased exports, which it was hoped would be generated by a series of economic measures, never came to pass. The over-dependence on the two main export items--bananas and coffee--and the general downward trend in the world price of these, served only to make it more difficult to obtain the needed foreign exchange. At the same time, the rise in the price of imports made it difficult to obtain the goods and services required to meet internal demand and to use to full capacity the installed industrial potential. The net effect was the strangulation of the economy. On the one hand, the earning power of exports fell from 162 in 1979 to 120 in 1982, 126 in 1983, 129 in 1984, and 137 in 1985 (1970 = 100), caused as much by

the fluctuations in the prices of the products sold as by increasing protectionism on the part of the trading partners (particularly the countries of the EEC). These countries exercised preferences for other countries for those products that had previously been supplied by Honduras. Furthermore, the conflicts of Central America served to have a negative impact on the exports of Honduras. According to CEPAL, "the export of goods experienced a major decline as a result of the loss of competitiveness of the products of Honduras, aggravated by the fluctuations in the exchange rates of several Central American countries, by payment problems resulting from shortage of exchange, by a fall in demand resulting from a fall in economic activity in the other countries of Central America, and by balance of payment measures adopted by various governments in the region."

Equally, the reduced level of economic activity which gave rise to the external restrictions, also led to increased unemployment and falls in the real value of personal incomes, thus deepening at each turn an already grave situation.

NATIONAL ACCOUNTS

Real gross domestic product (GDP) increased rapidly in the second half of the 1970s, sustained by a boom in public capital expenditure (the national road system increased from 5,500 kilometers to 18,000 kilometers). The annual rate of growth during this period was of the order of 8.5 percent.

As the following table demonstrates, during the first half of the 1980s economic activity stagnated. While GDP increased 3.6 percent from 1980 to 1985, this represents an annualized average rate of only about 1.4 percent. In fact, during the early part of the period, negative growth was experienced--a recession, paralleling the experience of many other countries at that time.

A modest increase of 3% in the GDP of 1984 to 1985 possibly indicates a slight recovery, but with so much of the national product relying on the agricultural sector it would take very little economic turbulence to wipe out this gain (Table A.1).

Table A.1
Honduras
Real Gross Domestic Product
(millions of lempiras of 1966)

	<u>1980</u>	<u>% Distri- bution</u>	<u>1985</u>	<u>% Distri- bution</u>	<u>% Change 80-85</u>
Agriculture	539	29	599	31	+11
Mining	38	2	40	2	+ 5
Manufacturing	295	16	268	14	- 9
Construction	74	4	78	4	+ 5
Electricity, gas & water	34	2	39	2	+15
Transport, storage & communications	120	7	130	7	+ 8
Commerce	230	12	237	12	+ 3
Banking, finance & insurance	74	4	72	4	- 3
Housing	143	8	145	8	+ 1
Government	86	5	96	5	+12
Others	<u>206</u>	<u>11</u>	<u>205</u>	<u>11</u>	<u>-</u>
TOTAL	1,839	100%	1,909	100	+3.6%

Source: National Bank of Honduras

The table also demonstrates that the sources of national income have changed very little over the 1980 to 85 period. Whereas it would be desirable to see a movement away from basic agriculture into manufacturing, the opposite has actually taken place, with agriculture contributing now 31 percent in place of 29 percent in 1980. The role of industry fell during the same period from a 16 percent contribution to a 14 percent contribution.

While the origins of the nation's wealth altered little between 1980 and 1985, the uses to which this was put during the same period likewise altered little. Private consumption accounted for the major expenditure (73 percent) and increased by a mere one percent. Government consumption accounted for fifteen percent of national expenditure in both years, and increased its total expenditure by 5 percent. Of importance in the table is the fact that private sector investment in capital assets fell a significant 38 percent over the period. The increased expenditure on defense and security, which itself had contributed in large part to the fiscal deficit, hovered around 50% of public expenditures in each of the four years 1982 to 1985. Furthermore, the proportion of this deficit in terms of GDP went from 6.4% in 1979 to 16.6% in 1984 and 15.0% in 1985, with 46% of the financing coming from external sources, thus contributing in great measure to the increased debt burden.

The normal outcome of a static economy of this type is that the average person becomes less well off. In fact, the per capita GDP has fallen every year since 1980, mostly accounted for by the population increase. GDP per capita fell by 12 percent between 1979 and 1984, though in the last few years the rate of decrease has become less, with every possibility that by 1986 it might have started increasing (Table A.2). Increases would have to be substantial to restore the average Honduran's buying power to what it was at the end of the last decade.

Table A.2
Honduras
Real Gross National Product
(millions of lempiras of 1966)

<u>Expenditure Classification</u>	<u>1981</u>	<u>% Distri- bution</u>	<u>1985</u>	<u>% Distri- bution</u>	<u>% Change 81-85</u>
Private Consumption	1,469	73	1,480	73	1
Government Consumption	299	15	314	15	5
Fixed Capital Formation					
Public Sector	181	9	198	9	9
Private Sector	230	12	142	7	-38
Increase in Stocks	35	2	47	2	34
Exports of Goods & Services	611	31	623	30	2
Imports of Goods & Services	-736	-37	-642	-31	-13
Net Factor Payments Abroad	- 93	- 5	-94	- 5	1
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Gross National Product	1,996	100	2,068	100	3.6

Source: National Bank of Honduras

EMPLOYMENT

The economically active population in 1983 was 1,206,000. 54 percent of the workforce was engaged in agriculture and about 13 percent in industry. Open employment in 1984 was estimated at 24 percent of the labor force. This figure takes no account of underemployment, which affected 18 per cent of the labor force in 1984.

INFLATION

The maintenance of a fixed exchange rate linked to the US dollar has helped to keep the inflation rate in single figures with a downward trend since 1980. As part of a plan to reduce inflation, which in 1979 was running at 22.5% annually, a program of internal and external adjustments was put into effect. This program met with a certain amount of success. By 1980 inflation had been reduced to half (11.5%), and continued dropping until 1984, by which time it had reached 4.7%. A large part of the fall in inflation was taken up by a loss of salary earner's purchasing power, since from 1982 the official minimum for each sector had been frozen. It has been estimated that real industrial income fell 13% between 1980 and 1985, and that real income for the agricultural sector fell by 13% between 1981 and 1985. The relatively low rate of inflation in Honduras has not been achieved without cost as high unemployment has continued (Table A.3).

Table A.3
Honduras
Percentage Relative Increases in Price Indices

	<u>1980/81</u>	<u>1981/2</u>	<u>1982/3</u>	<u>1983/4</u>	<u>1984/5</u>
Consumer Price Index (CPI)	9.4	9.0	8.3	4.7	3.4
Wholesale Price Index	8.6	10.1	7.8	1.3	1.2

ECONOMIC ACTIVITIES

Agriculture, Forestry, and Fishing

Although the total land area of Honduras is 11.2 million hectares, only 1.76 million hectares is cultivated as arable land or permanent crops. Honduras is experiencing a shortage of good farm land, as much of the country is very rugged and unsuitable for farming other than extensive grazing.

The agricultural labor force grew from 536,000 in 1970 to 740,000 in 1983. However, this represented a fall as a proportion of the labor force from 66.5 per cent in 1970 to 61.4 per cent in 1982. The pressure on land has been eased slightly by a land reform program, but redistribution of land has so far been modest. After growing by an average increase of 7.5 percent in 1976-78 and by 7.7 percent in 1979, the sector's performance has since deteriorated. Growth in 1980 was only 3.1 percent and then fell to 0.9 percent in 1981 and 1.1 percent in 1982 and actually contracted by 0.5 percent in 1983. A recovery of 1.5 percent has been estimated for 1984 (Table A.4).

Table A.4
Honduras
Agricultural Production
('000 tons)

	1979	1980	1981	1982	1983	1984
Bananas	1,300	1,330	1,425	1,425	1,186	1,250
Coffee	75	76	75	85	87	73
Cotton	8	7	6	4	5	5
Sugar	164	191	198	208	210	227
Maize	373	361	481	366	458	552
Sorghum	42	42	58	58	47	56
Dry beans	38	36	42	31	31	52

Source: FAO, Production Yearbook

The main agricultural export crop is bananas, although coffee now runs it a close second. Banana exports in 1985 were valued at US\$273.5 million, while coffee exports reached US\$185 million. The only other agricultural exports of significance are sugar and meat products.

Production for the home market is dominated by the food staples--maize, beans, rice. Although food production has increased since 1979, imports of cereals are still important and represented 27 per cent of apparent consumption in 1980. Wheat imports in 1985 were estimated at 94,000 tons. Food production per capita in 1983 was no higher than in 1980.

Agrarian reform has been a major issue in Honduras for some years and a land reform law was passed in 1975. Even so, landless agricultural workers are estimated at 200,000 and land invasions have become common. In 1982 the Instituto Nacional Agrario (INA) distributed nearly 17,000 hectares to 3,506 families; in 1983 the number of beneficiaries was 4,940 and the land distributed 22,726 hectares.

Forests cover about 4.1 million hectares, though a further 2.5 million hectares have potential for reforestation. Hardwoods are found near the coast and pine in the mountainous interior. Exports of timber were valued at US\$34.1 million in 1985. In 1974 the government nationalised the lumber industry restricting foreign involvement in the sector to 49 percent. It set up the Corporacion Hondureña de Desarrollo Forestal to spur the development of the country's forestry resources. In 1984 there were 122 sawmills in operation in Honduras and two pulp mills. Annual production of timber is around 1.3 million cubic meters.

Fishing has attained greater efficiency in recent years and centers on the shrimp industry. The value of shellfish exports in 1985 was US\$40.9 million. According to preliminary estimates, in 1983 there were some 2.5 million cattle, 305,000 horses and mules, 710,000 pigs, and 5,000 sheep.

Mining

Considerable reserves of silver, gold, lead, zinc, tin, iron, copper, coal, pitchblende and antimony are reported, but only silver, lead, zinc and small amounts of gold are being mined. In 1985 2.7 million troy ounces of silver were exported, as were 42.0 million pounds of lead and 104 million pounds of zinc. The most important mine is El Mochito, in Santa Barbara province, which is operated by Rosario Resources. The government has given priority to geological surveys of the country.

Energy

Consumption of commercial primary energy grew by 46 per cent in the period 1973-82. On a per capita basis consumption did not increase at all over that period, however. In 1982 imports accounted for 72 per cent of total consumption.

Several foreign oil companies have been exploring offshore for some time, apparently without success. In 1978 they were joined by Texaco and Exxon which have concessions on the Atlantic coast. Texaco operates a 14,000 b/d refinery at Puerto Cortés. A small quantity of petroleum derivatives is exported.

Honduras has been entirely dependent on energy imports, and, because of this, emphasis continues to be placed on the development of alternative energy sources, potentially including geothermal energy, but primarily hydroelectricity. Current plans are that the country's entire electricity requirements will be based on hydroelectric power by the end of 1988.

Electricity production came to 1,130 million kWh in 1983. Installed capacity in 1982 was 240 MW. Hydroelectric capacity has increased rapidly, rising from 19 percent of the total in 1970 to 46 percent in 1982. The Rio Lindo-Yojoa project has helped this to come about. Perhaps one of the most ambitious projects undertaken in Honduras was the construction of the "El Cajon" dam and hydroelectric power station. The scheme was planned to supply all the internal power needs of Honduras, and was to facilitate the export of electricity to other countries in the region through the proposed regional electrical integration program. The studies for the hydroelectric project were begun in the mid-seventies, and the construction started in June of 1980. The first stage, completed in 1985, cost on the order of US\$650 million. The installed capacity of 290 megawatts, with an annual output of 1240 thousand kilowatt-hours, served to triple the national electrical output. The second stage is planned to raise the capacity by an additional 300 megawatts, and at the same time make available for export quantities of power that will be independent of the effects of internal and external demand. However, other CACM countries have been embarking on ambitious hydroelectric schemes, so there may now be surplus capacity.

In 1981 production of fuelwood amounted to 1.445 millions of tons of coal equivalent; this, together with a modest output of bagasse (dried sugar-cane pulp), helped to cover some 59 per cent of the combined consumption of commercial primary energy, fuelwood and bagasse.

Manufacturing

The main thrust towards industrial development took place in the fifties, initially as part of an import substitution program, and then later under Central American integration agreements. As a result of these programs, production facilities were set up for textiles and clothing, construction materials (particularly cement), and for wood and wood products. These latter plants were established to exploit the enormous timber reserves in the country. As with many of the other countries in the region, the import substitution program soon reached its economic limit, but the limited size of the markets within the country mitigated against any further expansion that could start taking advantage of economies of scale. The restricted markets were limited still further as a result of the "soccer war" of 1969 between Honduras and El Salvador, which led to the withdrawal of Honduras from the CACM. By the time Honduras returned to the fold, five years later, the other countries had already taken the lead offered by the expanded market, and had forged ahead with industrial investments.

Industry is virtually limited to light consumer goods and to a large extent is based on wood industries, sugar mills, and dairy products. There has been some expansion of chemical, cement, textile and rubber concerns, but the most recent developments have

concentrated on the use of local natural resources. In 1974 the Corporacion Nacional de Inversiones was set up by the government to help promote new industrial developments and to expand existing enterprise in the sector. It is also involved with mining and tourism developments.

In the last few years, the industrial sector has suffered badly from the economic recession. Production in traditional industries declined by 1.6 percent in 1981 and by 5.4 percent in 1982. Industries producing intermediate goods experienced a fall of 11.7 percent in output in 1981, although output rose by 5.1 percent in 1982. Overall, industrial output declined by 1.3 percent in 1982 and 4.3 percent in 1983, but is thought to have staged a 2 percent recovery in 1984.

In the twelve months to January 1983, some 300 firms closed and private investment in manufacturing was cut back sharply. Indeed, the sector has been decapitalized in recent years, with fixed assets sold off and the proceeds exported. Unemployment in the industrial sector was estimated at 2.5 per cent in 1984.

FINANCE

The main weakness of the fiscal position in Honduras is government revenue, but new tax increases were eventually agreed in 1984. A substantial part of the public sector deficit since 1981 has been financed externally, with US aid flows contributing the largest share.

The 1985 budget, approved by Congress in October 1984, planned an increase in expenditure of 21 percent. The largest increases are for defense (32.9 percent); public works, transport and communication (28.8 percent); and education (31.4 percent). Current revenues are forecast at 1 billion lempiras, leaving a substantial borrowing requirement.

The banking system in Honduras is mainly in private hands with several foreign banks represented. The large public sector deficit during the first half of the 1980s has contributed to a substantial rise in the money supply. Monetary policy was tightened at the beginning of 1984.

FOREIGN DEBT

At end 1983 public disbursed debt stood at US\$ 1,570 million, compared with US\$ 1,375 million in 1982 and only US\$ 105 million in 1973. Private debt makes up only one tenth of overall disbursed debt: total disbursed medium and long term debt stood at an estimated US\$ 1,766 million at end 1983. In February 1984 the IMF suspended a US\$ 76.5 million standby credit because of the continuing high government deficit. The IMF has also repeatedly called for the devaluation of the Honduran lempira. The initial response of other potential creditors was to hold back from issuing new credits, but by the end of 1984 the position had eased.

The new civil and constitutional government took office at a time of a worsening economic crisis and of an increasing United States presence in the region. When international reserves being held by Honduras ran out on April 5, 1982, the Central Bank suspended its dealing in foreign exchange, while urgent representations were being made to Colombia and Venezuela to try to make up the shortfall. After receiving \$20 million in credit from Colombia and promises of help from Venezuela, the situation continued to be grave until August, when the IMF conceded an immediate loan of \$60 million, and agreed a further \$90 million on condition of a drastic program of adjustments, culminating in a renegotiation of the nation's \$2 billion external debt.

The international trade balance was negative in each of the years 1979 through 1985. This negative balance aggravated the problem of the debt service payments for the country, and severely restricted the country's ability to repay debt capital. The continued imbalance in the nation's current account, nevertheless, was paid for by the uninterrupted flow of funds into the country from commercial banks, and from various international lending institutions (particularly those of the USA). This recourse, however, only served to double the external debt of the country, which rose from \$1,388 million in 1980 to \$2,615 in 1985. During the same period, the portion represented by private sources fell from 30% to 13%.

APPENDIX B

ECONOMIC MODEL

FOR

ESTIMATING BENEFITS

164

APPENDIX B

ECONOMIC MODEL FOR ESTIMATING BENEFITS

In order to prioritize recommendations it is necessary to arrive at some estimate of benefits. Such a computation in the case of Honduras, 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 Honduras. Table A.1 shows that, of the \$835 million exported in 1985, approximately 63% could be classified as traditional and 37% as non-traditional. Thus the recommended improvements will be required to increase non-traditional exports over the \$343 million exported in 1985.

Table B.1
Honduras
Traditional/Non-Traditional Exports
1985
(\$ million f.o.b.)

<u>Total Export</u>	<u>Traditional Exports</u>	<u>Non-Traditional Exports</u>	
835	Bananas	232.3	
	Coffee	164.1	
	Sugar	25.6	
	Beef	21.2	
	Others	<u>180.7</u>	
835		628.9	206
100%		75%	25%

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

160

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 agricultural, it was felt that the breakdown contained in Table B.2 was sufficiently representative.

Of significance in the table is the fact that transportation can account for between 35 and 40% of the c.i.f. price of the product, and margins are typically 20 to 25%.

**Table B.2
Honduras
Typical Export
Cost Allocation
1986**

	<u>% of total</u>
Production cost	33-48%
Transport cost	35-40%
Admin. costs	2-4%
Margin	20-25%
 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 B.3 was found to give results that were acceptable.

Table B.3
Honduras
Typical Export
Transport Profile
1986

<u>Mode</u>	<u>% of total</u>
Land to port 1	10-12%
Port charges 2	15-20%
Sea freight 3	60-65%
Port charges USA	<u>10-15%</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 B.4 gives a cost profile of the typical export from Honduras. It shows the approximate amount spent on each cost category in 1985.

The total value of transportation for non-traditional exports from Honduras is of the order of \$156 million, with about \$78 million being spent on sea freight and about \$32 million being collected by the ports. The trucking industry accounted for about \$23 million.

About \$100 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.

167

If a recommended program manages to reduce transportation costs by 1%, or \$1.6 million, the margin is increased from \$100 million to \$101.6 million, or 1.6%. If the same cost profile is maintained overall, then a margin of \$101.6 million should support a total value of exports of about \$465 million, or an increase of \$7 million. On this basis there is about a 4 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.

**Table B.4
Honduras
Typical Export
Total Cost Profile**

	<u>Percent</u>	<u>Value US\$ million</u>
Production cost	33-48%	183
Transport cost	30-35%	156
Land	4-6%	23
Port C.A.	6-8%	32
Sea Freight	15-20%	78
Port USA	4-6%	23
Admin. Costs	2-4%	14
Margin	<u>20-25%</u>	<u>100</u>
Total c.i.f.	100%	\$458

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.

1/29

APPENDIX C

COMPARATIVE PRICE SENSITIVITIES

COMPARATIVE PRICE SENSITIVITIES

The table on the next page demonstrates the relative sensitivities of different export products to the cost of transportation.

The table 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 changes. The percentage of total cost 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). See Table C.1

Table C.1
Honduras
Comparative Unit Costs of Exports

<u>Export Product</u>	<u>Typical Unit Prices FOB (1985 US\$/ton)</u>	<u>Typical Total Transportation Cost (% CIF Price)</u>
Shrimps & Lobsters	10,000-12,500	2-5
Frozen Meat	1,900-2,200	12-15
Bananas	300-400	40-50
Coffee	2,400-2,700	10-15
Pineapples	350-400	40-50
Melons	340-380	40-50
Grapefruit	250-280	50-60
Fresh Cut Flowers	2,000-2,500	55-65
Fruit Jams/Jellies	500-550	35-45
Cocoa Beans	2,000-2,200	13-16
Palm Oil Seeds	250-300	45-55
Seeds, Tubers, Roots, etc.	860-910	25-30
Wood Furniture	1,200-1,500	20-25
Doors, Window, etc.	300-350	40-50
Bamboo Furniture	4,000-4,200	5-10
Cardboard Boxes etc.	530-560	35-45
Metal Lids, Tins, etc.	9,000-9,250	2-5
Female Underwear	22,000-25,000	neg.

Table C.1 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, a typical breakdown on a tonnage basis would be:

production costs	\$225 /ton
transport & selling costs	\$250 /ton
administrative costs	\$ 15 /ton
Total fixed costs	\$490 /ton
Total income on sale	\$650 /ton
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 transport and selling costs go up by, say, 10%, the distribution becomes:

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

The 10% increase in transport 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 transport content and would thus increase.) Common agricultural products produce very small margins, and it is safe to suppose that most growers in Central America 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 transport cost with account for all profit and start eating into the producer's ability to repay his debts.

As can be seen from Table B.1 of comparative unit costs, melons have a fairly average unit value, 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.

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 smaller producers of agricultural exports in Central America 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. It was noted that historical analysis showed that export volume did not decrease as the result of an increase in the cost of transportation. It was felt that for the major commodities, volumes increased or decreased according to world-wide supply and demand.

Unfortunately, when the actual effect of cost changes are calculated, it appears that is 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. The country's total volume may appear unchanged only because the other producers of this or another product may enter the field, offsetting those that cease exporting. Here are the calculations.

In many cases the port charges constituted up to 25 percent of the cost of door-to-door transportation, and were commonly half the cost of port-to-port sea freight. Thus for commodities where transportation was 50% of the buyer's price, the port charges contributed 12 percent. A 10% increase in the port charges could result in a 5 percent reduction in margin, clearly jeopardizing the producer's ability to service his debts.

Thus there is a clear connection between changes in transportation charges and the ability of the non-traditional exporter to stay in business. The volume exported, however, may not change 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 the countries of Central America--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 though, overall, export values and tonnages increase, this only happens because the composition of the exports alters each year. Thus, to introduce an increase in transport 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 transport 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 not therefore likely that less would be sold if transport costs rose, or more sold if transport costs fell.

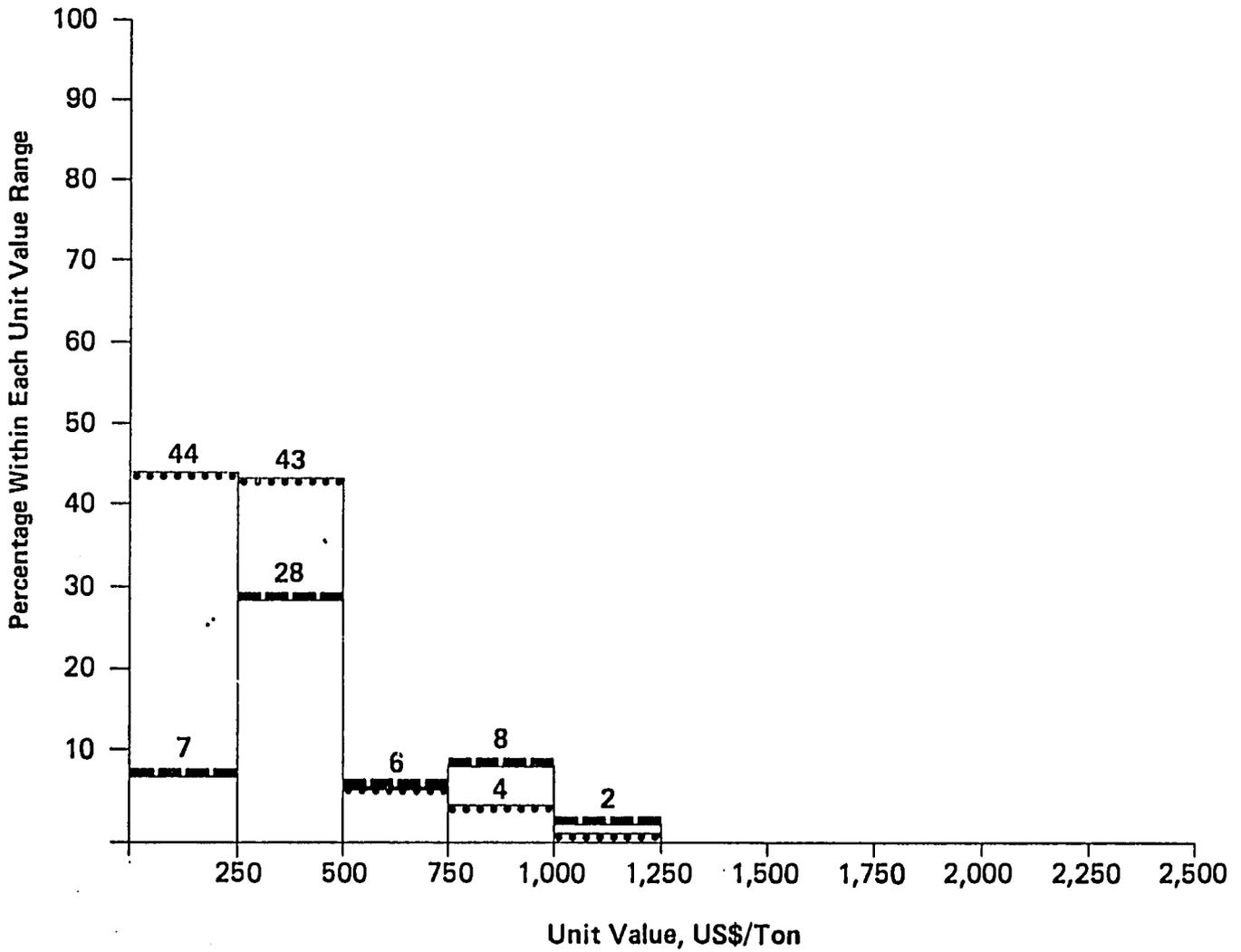
Honduras is unfortunate among the countries of Central America in that so few of non-traditional exports involve value-added processing. Some of the other countries have less of a preponderance of low unit price commodities for exports and are thus less supremely sensitive to the cost of transportation.

Price Sensitivity at the National Level. On a national level, the sensitivity of the aggregated national exports to the cost of transportation is demonstrated in the following graphic. In it a comparison is made between the unit values just discussed and the export volumes and values: the continuous line shows the percentage of the export value that lies within the unit value range, while the broken line shows the percentage of the total export tonnage that lies within the same range.

As can clearly be seen, exports with a unit value of less than \$500 per ton account for 60 percent of the total value of the nation's exports and 92 percent of its tonnage. Coffee, at \$2,500 to \$3,000 per ton, accounts for 25 percent of the export value, but only 4 percent of the export tonnage. The exports in the less than \$500 per ton range include wood, sugar, bananas, lead, and other general agricultural products.

Without a doubt, Honduras' exports are dominated by low unit price products whose demands on the national transportation system exceed the relative return. Any increase in the cost of transportation at the national level will certainly reduce the volume of products exported in the lowest unit value range, and since products in this range account for more than half the nation's income, the national economy would be seriously affected. A reduction in the cost of transportation would make it profitable to cultivate previously unexploited areas, and so add to the export volume.

**Honduras
Non-Traditional Exports
Unit Value Profile
1985**



..... Distribution by Percentage of Total Tonnage
 - - - - - Distribution by Percentage of Total Value

In national terms, to rely so heavily for export earnings on such low unit value items is extremely risky, and makes the economic future highly unpredictable. By a process of industrialization the unit value of the exports needs to be increased to the point where transport costs become an acceptably low proportion of the total costs. Where transportation to the nearest market is inherently expensive--as in the case of every Central American country--it is better business practice to export the agricultural products in processed form.

As can be seen from the table, while Puerto Cortés handles only 61% of the country's exports, the remaining 39% is made up mostly from bananas being shipped out of Tela and La Ceiba. Taking all imports and exports together, Puerto Cortés accounts for 75% of all cargo handled in the country, a figure that illustrates that Puerto Cortés is now and will be the major maritime center for Honduras. Equally, the figure also signifies that any increases in exports will increase demands on Puerto Cortés.

Shipping Lines

At the time of the study the following lines were offering service to the Atlantic ports of Honduras, principally Puerto Cortés:

- o **Coordinated Caribbean Transport Inc. (CCT).** Ro-Ro service. weekly to Miami and every 12 days to New Orleans. Accepts 20, 40 and 45 ft. containers for dry cargo and 40 ft reefer containers. Also accepts 20 ft and 40 ft trailers.
- o **Sea-Land Service.** Weekly service to New Orleans and Miami, though with onward connections to destinations world-wide. Container service only, all sizes and types including reefers. 10 days to Miami. Use own equipment.
- o **Seaboard Marine.** Weekly service to West Palm Beach. Ro-Ro service. 72 hours to West Palm Beach. Vessel capacity increased each year December to March to meet demand.

- o **Nexus Line.** Lo-Lo service every 12 days to Tampa and New Orleans. Space available for 20 reefer containers, but not currently used. All unitized cargo; own chassis available.
- o **Concorde Line.** Lo-Lo service to Port Everglades, New Orleans and Houston.
- o **Caribbean Overseas Lines (CGM, Hapag Lloyd, KNSM, Harrison Line).** Service three times a month to and from European ports. Accept all dry and refrigerated containers and others.
- o **Flagship Container Service.** Container service to Alabama and New Orleans twice a month. Accepts 20 ft and 40 ft containers.
- o **Colsa Line.** Dry cargo service every 22 days to Hamburg, Antwerp and London. Accepts bulk and palletized cargoes.
- o **Libra Line.** Monthly service for 20 ft and 40 ft containers and general cargo to and from Brazil.
- c **Marine Trading Ltd.** Any bulk cargo to or from the east coast USA.
- o **Mexican Line.** Monthly service from New York, Baltimore, Philadelphia and Miami. Accepts 20 and 40 ft containers and dry bulk/break bulk cargo. Heavy lifts up to 25 tons.

- o **Nedlloyd.** Two sailings per month to U.K. and Scandinavia. Accepts containers and general cargo.
- o **Gulf Caribbean Line.** Container and breakbulk service every two weeks to Tampa.

The following also called at the Atlantic ports of Honduras, but on an irregular basis:

- o **Standard Brands.** This company operates on a contract basis every six days to Gulfport, Mississippi. Accepts 40 ft refrigerated containers.
- o **Nordana Line.** Variable northbound service every three weeks. Accepts containers, Ro-Ro, and general cargo. Own equipment with 120 ton capacity.
- o **Pacific Cargoes.** Irregular shipments of grain from various US locations.

The Pacific ports of Honduras, principally San Lorenzo, have no regular liner service.

Costs of Marine Transportation

Some typical charges for transportation being levied at the time of the study included:

- o \$1,300 for a 20' container of wood from Tegucigalpa to Miami. \$1,200 from S.P.S.