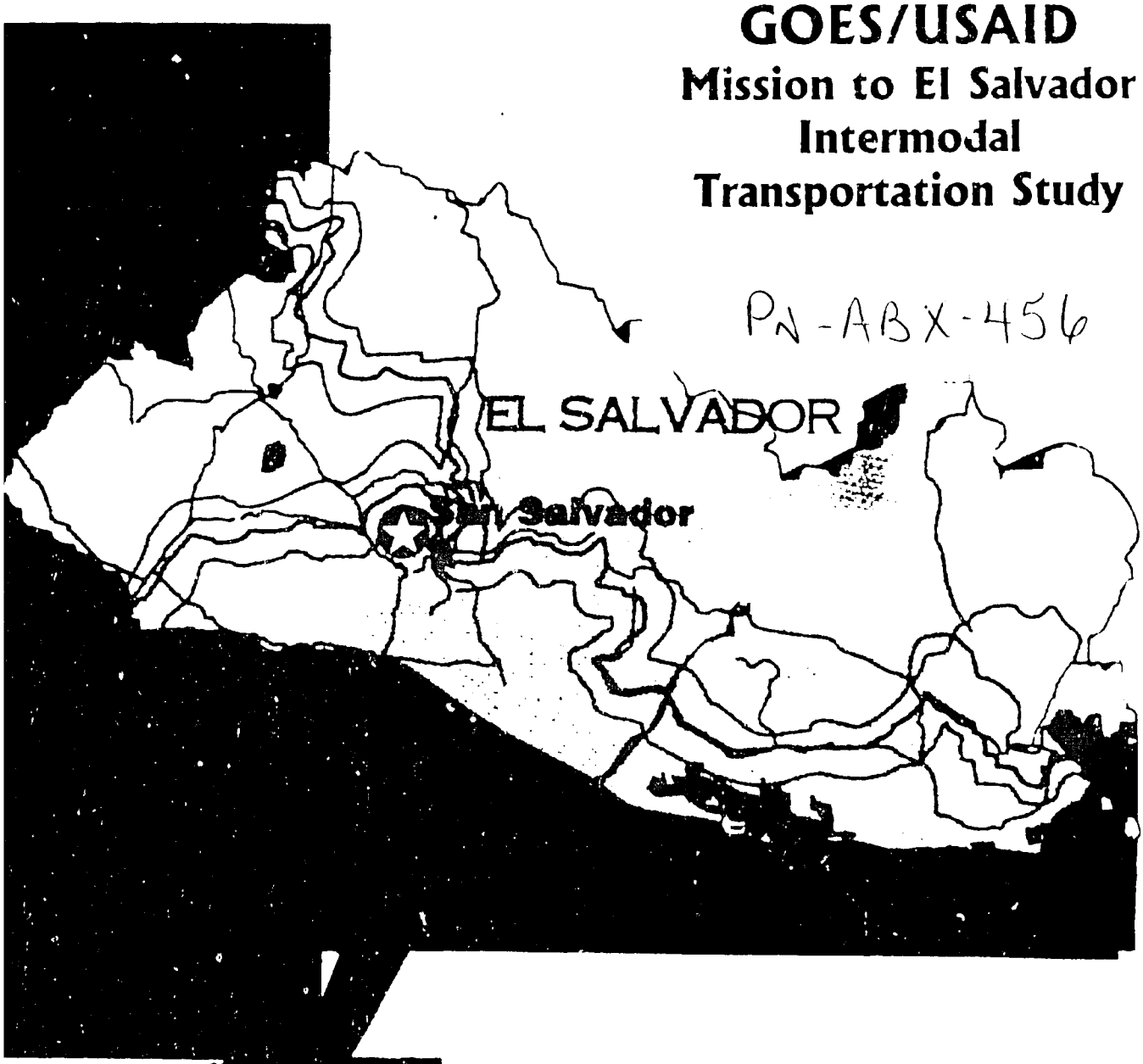
GOES/USAID
Mission to El Salvador
Intermodal
Transportation Study



Final Report
TASK 7
INTERURBAN
SERVICES
prepared by
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in association with
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San Salvador June 29, 1995

Mr. Ernesto Girón, CTO
USAID Mission in El Salvador
San Salvador, El Salvador

Ref.: Intermodal Transportation Study
Contract No. 519-0394-C-00-4112-00
Final Report, Task 1 "Transport Sector Management and Coordination".

Dear Mr. Girón:

In compliance with section C.3.6 of above referenced contract enclosed herewith are 10 (ten) copies, in English, of the Final Report of Task 1 **"Transport Sector Management and Coordination".**

We are calling this "Final Report" rather than "Final In-Depth Report" to better reflect its content.

Sincerely yours,

José H. Cosío, P.E.
Team Leader

PN-ABX-456

TASK 7

INTERURBAN SERVICES

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7.1 Introduction, Objectives and Scope

The passenger and cargo interurban transport study was designed and organized according to the guidelines in the term of reference. The organization of this report and the scope covered by the analysis was based on the time available to the sector specialist, his local support, and the DGTT counterpart staff's part-time support.

The report covers the analysis of organization of the sector, institutional and legal aspects, current regulations, route operation, their frequencies and other characteristics, enterprises, vehicle fleet, tariffs and trends, controllers and their functions, the fuel subsidies, its deficiencies and alternatives, operating costs of transporters, and the subsidy's impacts on, and possible constraints to privatization. The report also analyzes minibuses and pick-up truck transport services. Finally, the report includes recommendations on key aspects for the future of the sector.

Throughout the study, greater emphasis was put on the passenger transport sector and less on the cargo transport industry, as the latter is not as complex and is totally managed by the private sector, devoid of government intervention, and does not have subsidies. Interurban passenger transport, by having regulated fares and subsidized fuel, with a network of more than 600 routes, has greater problems which deserve a more detailed and ample analysis than the one required by the cargo sector. On the other hand, one of the most important cargo sector regulations is weight control by axle, which is analyzed and described in greater detail in the chapter three.

Due to the lack of systemized, consistent and up-dated information, additional tasks were carried out to complete and organize basic information. Among these were:

- The organization of a new, more complete computer database of the routes.
- A map of all the routes nation-wide, which did not exist before.
- The organization and verification of data compatibility on interurban transport operators and their vehicle fleets.
- The design, implementation, processing and analysis of a sample field survey of users, and passenger and cargo transport operators.
- Counts of passengers on buses and pick-up trucks to estimate the pick-up truck market share.

Preliminary guidelines of studies that the DGTT ought to undertake to continue this effort were also prepared.

At the end of the report, there are several recommendations on priority aspects for a more dynamic, technical and better organized sector.

Throughout the study, we had the valuable collaboration of two professionals assigned by the DGTT as counterparts of the study. They participated actively in the analysis and helped achieve the objective of technology transfer.

In spite of limited resources, DGTT personnel, especially its Director, gave extraordinary support.

The Draft of this Report had some comments attached to a letter from the VMT. Due to the nature of these comments, they are answered in Annex 7.1.1 of this Report, as well as in the text of this Report.

7.2 Organization of the Public Transport Passanger Sector

7.2.1 Source Information

The institution in charge of regulating the public transport of passengers nation-wide is the General Directorate for Ground Transport (DGTT), of the Vice Ministry of Transport (VMT), of the Ministry of Public Works (MOP). To obtain basic information about the sector, several meetings and interviews were held with the Director and the counterpart professional staff assigned to the study.

The DGTT and the data processing office of MOP have a computer information system whose main objective is to control the diesel subsidy. It also provides the following data:

- Bus inventory and control, including fleet characteristics.
- General data of the bus operators, and/or owners.
- Diesel allocation by vehicle type, gas stations that serve them, and the diesel cards issued monthly to operators.
- Authorized routes, units with permits, trips by vehicle, distance, time of the trips, number of available seats and official authorized fares.

Besides this, little information was found in this office. More information about recent studies was sought in other offices and departments, public and private foundations, such as the Ministry of Planning and FUSADES. FUSADES Newsletter (No. 101, April 1994) was analyzed.

Additional sources consulted were the El Salvador Bus Entrepreneurs Association (AEAS) and the Passenger Transport Association (ATP), the legal and established association that represent urban and interurban passenger operators. These associations gave important information about the entrepreneurs, routes, number of trips, existing regulations, etc. However, data used were those given by DGTT.

Finally, some field surveys of users were carried out at each bus station in San Salvador, San Miguel and Usulután; and of interurban bus entrepreneurs on operations management, operating costs and organization structure.

7.2.2 Type of Bus Operators

From data given by DGTT, type of bus ownership and vehicle fleet by owner type were analyzed. The number by type of enterprises was obtained from the data processing office of MOP, shown in TABLE 7.2.1.

TABLE 7.2.1
Number of Entrepreneurs by Legal Ownership Type, 1994

TYPE OF Entrepreneurs	Nº	%
Individual Entrepreneurs	1,895	99.6
Corporations	6	0.3
Cooperatives	2	0.1
TOTAL	1,903	100.0

Source: MOP

This shows that 99.6% are individual entrepreneurs, who do not generally apply basic management concepts in their business, and most of them work on their own buses.

They were classified by the number of buses owned; four categories were established: entrepreneurs with 17 units or more, from 10 to 16, from 5 and 9 and those with less than 5 units, as shown in Table 7.2.2

TABLE 7.2.2
Entrepreneurs by Vehicle Ownership, 1994

NUMBER OF BUSES	NUMBER OF ENTREPRENEURS
17 or more	2
10 to 16	4
5 to 9	80
Less than 5	1,817
TOTAL	1,903

Source: MOP

The authorized number of routes by operator are listed in Table 7.2.3.

TABLE 7.2.3
Entrepreurs per Number of Routes, 1994

NUMBER OF ROUTES	NUMBER OF ENTREPRENEURS
8 or more	1
From 5 to 7	2
4	15
3	52
2	226
1	1,607

Source: MOP

This tabulation shows that 95.4% of the total of entrepreneurs have five buses or less.Only 15.5% serve more than one route this means that routes or lines are generally served by several entrepreneurs with less than five buses each. Theoretically, this stimulates competiton and tends to improve the level of service. Never, since most bus operators are individuals and have no truly established businesses, only distinguished by the vehicle name, the user can not distinguish enterprises as such and show preference for one or another. This industry atomization, **which has not produced good results, neither for the operators nor the users,** seems to be specific to El Salvador.

7.2.3 Enterprise Management

In order to evaluate business practices and management, and the operation of the interurban buses, an interview-type survey was designed for bus entrepreneurs in order on administration, costs, income and other aspects, providing the following results:

- Few individual owners-operators have organized businesses to expand their operations; most own one, two or three buses, sometimes driven and operated by themselves, kept at or near homes.

- Most entrepreneurs do not have an accounting their system, statistics or records; they do not carry out any productivity or efficiency analysis nor do they much control the number of passengers transported.

- Besides the driver, the businessman normally hires a fare collector. On routes with more passenger rotation, the collector has a helper to control and charge fares.

- Sometimes the owner has a mechanic, a secretary and a small office.

- Generally, the owner pays fixed daily salaries to his employees. The collectors normally receive a daily salary, a little less than the driver. Sometimes the owners make the collectors use numbered tickets to control

the number of passengers. In other cases, the owners themselves or reliable persons supervise routes to control the number of passengers. Percentages can not be provided on the prevalence of these practices within the terms of this study, which would require a full operator survey.

- Normally, drivers do not receive additional compensation nor fringe benefits. Sometimes the owner gives a Christmas bonus. Fringe benefits seem to be at the discretion of the owner, depending on driver and collector performance.

- The entrepreneur pays a fee controlled pertrip to DGTT Delegates, Government employees and in charge of the route dispatch and control of bus operations, especially to verify and supervise the diesel subsidy.

7.2.4 Existing Associations

The majority of urban and interurban bus owners are affiliated with two well-known associations: The El Salvador Association of Bus Entrepreneurs (AEAS) and the Entrepreneurs Association of Passengers Bus Transport (ATP). They represent entrepreneur interests in the passenger transport sector.

Meetings were held with both associations on their concerns about the interurban transport sector, managerial practices, constraints, strength and difficulties. The result of the meeting with the AEAS Board of Directors on industry trends in the last years were the following:

- AEAS was established in 1977. It has approximately 2,700 associates and its membership is nation wide. Its main objectives are: to educate bus entrepreneurs and give technical, juridical and credit assistance to its members, and to promote changes in the transport sector about fares, operations and finance.

- Until 1971, transport businesses were relatively well organized and had enough power to establish their conditions and interests in the whole country.

- From 1971 to 1976, the Government of El Salvador (GOES) motivated and promoted the dissolution of these businesses to open space and strengthen the creation of cooperatives of individual operators, reducing operator power. By 1976, the majority, had evolved to this type of cooperative.

- From 1976 to date, almost all interurban transport cooperatives have been dissolved, due to deficient management, ineffective administration and

internal operators problems. This has produced great atomization so that today almost all entrepreneurs are individual owners. This situation, as previously mentioned, is not efficient.

At the meeting held with the ATP Board of Directors the following information was gathered:

- It was only recently established in 1992 and legalized in 1993.
- It has about 650 bus entrepreneur members, mostly from urban and interurban transport in the eastern and central parts of the country.
- It represents entrepreneur interests nation-wide.

These two organizations differ basically in the way they present their proposals to the Government, but coincide in their basic objectives. AEAS is considered to have more entrepreneurs. Both organizations have affiliated cooperatives to acquire bus parts for their members.

Both AEAS and ATP entrepreneurs have accumulated a lot of experience and knowledge about public passenger transport through the years. Although they have common objectives, they differ in their methods to promote the sector and defend their interests. Both have small, incipient technical organizations which reduce their possibilities to contribute to positive sector development and improvement. With adequate technical aid, these associations could contribute much more to the positive improvement of the sector through the design of policies, plans and programs contribute to solving the sector problems, and benefit their members and users.

7.2.5 Micro-buses and Pick-up Trucks

As a result of the civil war of the 80s, many buses were attacked and stopped. ATP indicates that during the armed conflict, the public transport system had to stop more than 400 days, making normal service difficult. Micro-buses and pick-up truck services appeared, as extenuating, unregulated and provisional services without regulation or legal permit.

Apparently, since 1983 the General Directorate of Transit (DGT) started giving route permits. In 1986 or 1987, the permit process for micro-bus transport was consolidated at the DGT of the National Police, when this kind of service started, especially in the urban area. Subsequently, some interurban permits have been given. According to ATP, there are routes from Cojutepeque to San Salvador, Quezaltepeque to San Salvador, Acajutla to Sonsonate and San Miguel to Chinameca, besides the Santa Tecla to San Salvador service.

According to DGTT there are only 10 authorized routes, which have the characteristics detailed in Table 7.2.4.

TABLE 7.2.4

Microbuses Authorized Inter-urban Routes

ROUTE NUMBER	DESCRIPTION	NUMBER OF UNIT	NAME OF COOPERATIVE
	SAN SALVADOR		
A-1	Cuyultitán - San Salvador (Barrio Candelaria)	22	ACACMOOL
21	Santo Tomás - (Cine Apolo) Centro	34	ACACTMIST de R.L.
101-B	Calle Principal - Residencial Alpes Suizos - 1a, Ave. Sur - San Salvador	19	ACOMUNS de R.L.
101-D	Colonia Cumbres de Santa Tecla - Centro	34	ASCOMINSS de R.L.
109	Quezaltepeque - San Salvador - Reloj de Flores	28	ASOTEMQ
115	Tonacatepeque - Centro de San Salvador	8	ATMISAF
140	Reparto Santa Teresa (San Martín) - Centro (12a. Avenida Sur)	126	AMCUSAM
	SONSONATE		
	La Ponderosa - Centro - Barrios El Campamento - Acajutla	17	ATMIS - ACAACMIN
	SANTIAGO DE MARIA		
1-UN	Santiago de María - Villa El Triunfo	17	ACAPAMIS
	COJUTEPEQUE		
113	5a. Calle Oriente Cojutepeque - Calle Delgado	7	ASEMIC

Source: DGTT/MT

Besides micro-buses there is an informal and illegal, public pick-up truck service that transports passengers throughout country, which emerged as a result of the lack of bus transport during the armed conflict. This service is very generalized and largely accepted by the population. However, there is no study of its operations and economics. Therefore, it was not possible in this study to learn with certainty its characteristics, size and activities. It is estimated that this service may carry up to 25% of interurban, damaging the established bus industry.

To estimate the share of passengers carried in pick-ups, several counts were carried out on interurban roads surrounding San Salvador. According to these results, pick-up trucks carried about 8% of public interurban transport passenger.

The pick-up truck service owners have organized themselves into cooperatives and have a National Federation of Associations and Cooperatives. This extremely unsafe service is competing unfairly with the buses and it should be eliminated as soon as possible by the DGTT.

7.3 Passenger Transport Regulations

7.3.1 Vice-Ministry of Transport and General Directorate of Ground Transport (DGTT)

Until 1993, DGTT belonged to the Ministry of Economy. The DGTT became a part of the Vice Ministry of Transport (VMT), recently created in the Ministry of Public Works (MOP), by Executive Decree N° 72, with specific functions.

The VMT's main functions which refer to ground transport, textually specified in that document, are:

- To plan, analyze and carry out national sector policies.
- To promote the creation of organizations or businesses to develop the transport system, taking in consideration supply and demand.
- To determine, after previous study, the needs of the sector in order to recommend the vehicle imports and production needed to replace the vehicle fleet.
- To give and cancel authorizations to utilize the transport network.
- To give and cancel authorizations for transport businesses, in the different modes

- To carry out necessary actions, as the maximum authority in this sector, to guarantee ground transport efficiency and security.

7.3.2 DGTT Organization and Functions

With the recent DGTT transfer to the VMT, the DGTT wants to reorganize itself and to fulfill its true function in ground transport. However, this process should occur as institutional change takes place.

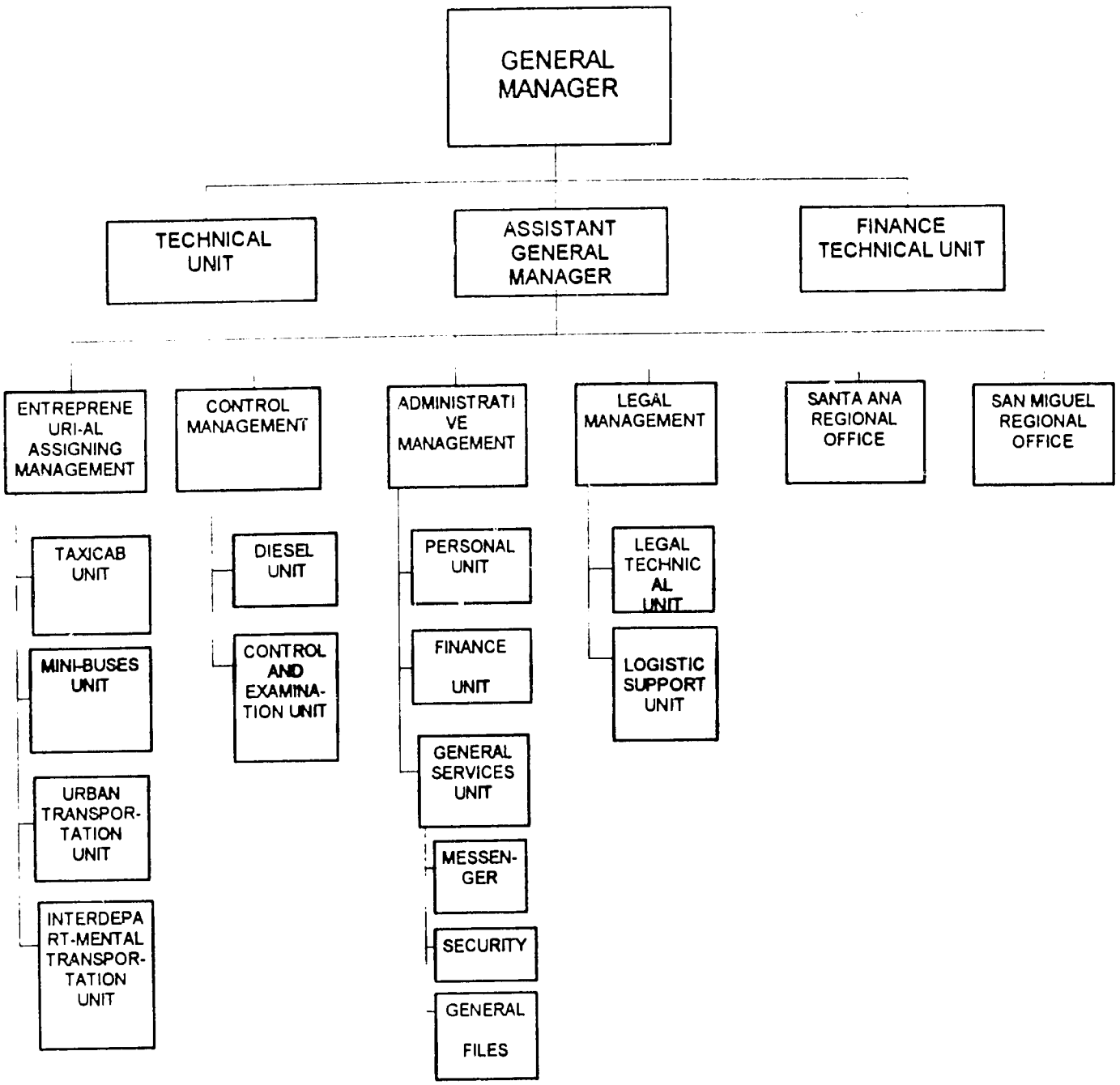
The DGTT is working now under a new philosophy, withGovernment support. It expects to establish improvements and many nation-wide solutions. At present, it has limited professional resources in transportation engineering, lack of adequate resources, offices and equipment, lack of organization and clear functions. Its procedures are obsolete. It lacks modern management methods and techniques. There are very little processed computer data, except for some data related to the management and control of the diesel subsidy, routes and operators. The rest of the procedures are carried out manually. A substantial increase is expected in the 1995 DGTT budget, since the most part of this year's budget is for salaries. Operators do not currently pay for DGTT services.

At present, the DGTT is managed by professionals who want to generate major change in the organization of the transport sector, based on national policies of Government modernization. This way, with adequate support and with greater resources, the new DGTT office could produce drastic and favorable changes in the sector over the next few years.

In Figure 7.3.1, the current DGTT organization is shown, with its functional division of technical support needed to carry out the assigned activities. A description is included of the main processes that the DGTT carries out at present, in passenger transportation:

- Creation of routes and permits of new lines.
- Line permits on existing routes.
- Line transfer
- Replacement of vehicles
- Shift of operation or service system
- Cut or expansion of route
- Traffic shift
- Route shift
- Change of point of departure
- Permits for operation and re-incorporation

FIGURE 7.3.1
Current Organizational Structure of the
General Directorate for Ground Transport



7.3 3 DGTT's Organizational Alternatives within the VMT

The current project of organization and function of the VMT's offices was analyzed carefully as to the need to define and distribute DGTT's functions, and those of traffic engineering, traffic security and freight transportation. At the same time, the organization of the passenger transport sector traffic and freight transportation in other countries was analized such as Venezuela, Colombia, Ecuador, Dominican Republic and Costa Rica. It was found that problems faced by the directorates of ground transportation are similar and common in most of these countries. The organization of these offices allows for inefficiency, bureaucracy and corruption in most of these countries.

Only Costa Rica, El Salvador's neighbor, seems to have found a system of organization of the offices and functions that are related to traffic, transportation and freight control, which has brought excellent results for transport enterprises and the whole community, through transparent procedures, efficient action, depolitized decision making and reduced bureaucracy. It is worthwhile, indeed, to pay attention to the successful Costa Rican model and see if some components of its system can be successfully implemented in El Salvador.

In Costa Rica, there is law regulating paid transportation, since 1965, which specifies and defines everything related to routes, concessions and its allocation, entrepreneurs, fares, exemptions and duties.

Late, in 1979, a new "Traffic Administration Law" was approved, No. 6324, which regulates everything related to transported persons, vehicles and goods on the public road network, as well as all aspects of traffic security and environmental pollution caused by vehicles. According to that Law, traffic administration is made up of the following offices of the Ministry of Public Works and Transport:

- The Traffic Security Council
- The Technical Transport Comission
- The Traffic Engineering Directorate
- The Directorate of Traffic Police
- The Directorate o Vehicular Transportation

The Traffic Security Council analyzes issues related to traffic and the promotion of traffic security programs.

The Technical Transport Commission is an organization that, as indicated by its name, is primarily technical and professional, made up of the Directorates of Vehicle Transportation, Traffic Engineering and Traffic Police, plus 3 professionals; according to law, two of them should have experience in transport planning. The Technical Commission has the following functions:

- Know, process and resolve first of all issues related to the allocation, extension, suspension, expiration, revocation, modification or cancellation of concessions of public transport service, by bus or taxi cabs;

- Study, process and allocate bids on public service concessions, in accordance with law and regulations; and

- Know, process and resolve any other business submitted to the Ministry of Public Work and Transport.

The Traffic Engineering Directorate is in charge of the study of traffic problems and their environmental and social consequences, as well as the design and implementation of technical measures and norms to control them. It is also in charge of the traffic signal and public service planning. The requirements to become Director of Traffic Engineering are: to be a professional in engineering, specialized in traffic or transportation, with no less than five years experience in the field.

The Directorate of Traffic Police exerts controls traffic and traffic security nation-wide, establishes and manages accident records and traffic violetions.

The Directorate of Vehicular Transportation regulates vehicular ground transportation all over the country, based on norms and recommendations made by the Directorate of Traffic Engineering. It implements resolutions of the Technical Transport Commission. It regulates and supervises public transport services and freight transport over roads, including weight and size controls. This Directorate also studies, regulates and controls tariffs, issues driving licenses, registers and grants vehicle permits based upon periodic vehicle inspection.

This organization has permitted the eradication of most bad habits and inefficiencies that affect the directorates of traffic and transport in many Latin American countries.

In the case of El Salvador, the planning, direction and control of the road transport have been assigned to the recently created Vice-Ministry of Transport (VMT). Within its General Directorates of Ground Transport (DGTT) and Transit (DGT) and the Traffic Police, from the National Civil Police, it should be easy to accomodate a similar to the Costa Rican organization with the addition of a Unit similar to the Costa Rican Technical Transport Comission to assure transparency in the awarding of public service concessions.

The VMT must introduce a series of reforms, very important to the sector's future efficiency.

Suggestions made for the best future organization of the VMT, regarding the Ground Transport sector, have been integrated and analyzed within the general context of the organization of the whole VMT, described in detail in Chapter 1.

7.3.4 Current Regulations

The main current legal document which regulates and governs all traffic aspects nation wide is the General Traffic Regulation (RGT), which dates from 1946 and includes everything related to traffic, use of roads and highways.

There are also complementary laws and regulations, the Law of Fiscal Rights of Vehicular Traffic, and the Regulation in the Use of Services for the Western and Southern Bus Terminals.

On the other hand, in 1956, the Government enacted a Provisional Transport Regulation, essentially up to date, concerning all subjects related to ground transport and public transport for passengers. This transition regulation for buses has been modified in several instances, in 1957, 1961 (twice), 1963 and 1972. In spite of being very old, it is fairly complete for issues related to public transport of passengers by bus. It includes urban, interurban and international transport; transport routes and lines, service supply and other general ordinances. The chapter dealing with service provides a legal base by which the DGTT can create a route and give it as a concession to several operators, enterprises or individuals, until the number of vehicles required by the line's service is reached, according to the demand that should justify their creation.

There is also Accord No. 11, April 1961, that establishes minimum conditions for urban transport vehicles, and Accord No. 1, January 1963, that specifies the conditions that mini-buses should meet, specially those authorized for express service on the San Salvador-Santa Tecla route, which is really a suburban route.

No specific legal instrument was found that regulates interurban bus conditions but norms on the operation and concession of routes apply to all type of interurban routes, according to said provisional regulation.

Besides the legal instrument creating the diesel subsidy, there are few regulations or legal bases; the remaining are regulations pertinent to different aspects, enacted in different cases. However, there is no protocol of specific legal norms, modern and updated, that regulates actions of the private and public sector regarding interurban and urban transport.

7.3 5 DGTT Delegates

DGTT delegates were apparently created in 1958, which including dispatchers at the end of each route, and the controllers along them.

The delegates' function is to control the number of vehicles that operate daily, their frequency, and physical condition; however, in practice, their function is mainly to control the minimum number of monthly days of bus operations monthly, to be eligible for the diesel subsidy.

There is a **Regulatory Protocol of Transport Delegates**, enacted by the Presidency in 1986, which defines the functions of the delegates, their obligations, prohibitions and rights, disciplinary code, sanctions, and everything related to their activities. Apparently this regulation was approved step-by-step as a result of delegate union conflict, as stated in the first part of the Decree.

These delegates are appointed by the DGTT but are paid by the operators. According to the DGTT, there are about 1900 - 2000 delegates nation-wide for interurban routes, but according to AEAS, there are approximately 4000-6000 delegates nation-wide for all routes, urban and interurban, an expenditure of 75 to 80 million colones annually for the entrepreneurs, AEAS says.

According to AEAS, currently the true remuneration of each delegate is ¢8.00 to ¢20.00 per dispatched or controlled bus; the bus pays this amount as many times as it's controlled. According to AEAS, the legal amount authorized by the DGTT is ¢2.00 to ¢2.50 per dispatched or controlled bus.

Apparently, by tradition and custom, many delegates have been appointed for political reasons or friendship. AEAS' view point is that the presence of the delegates makes increases the cost of public transport and should be eliminated, although they are aware that this measure could generate a social problem.

The activity of the transport delegates constitutes one of the main characteristics of the passenger transport system, allowing for discretionary and irregular situations due to the way this control is performed.

7.3.6 Proposed Traffic Law and Regulation

VMT has written a proposed Traffic Law that is being revised by the different sectors involved. Its approval, updating all aspects, is expected shortly.

There is also a proposal to regulate and further specify functions to be carried out by the DGTT. It includes general regulations of public transport, traffic, and highway

development, a summary of which was given to this study. The proposal was analyzed and an awkward mix of different types of functions were found.

These must be analyzed and revised in the light of the currently proposed new traffic and/or ground transport law. It should take into account the main existing regulations to be updated and those currently included in the legal instruments in effect.

Although the detailed analysis of this proposed law is far beyond the scope of this study, it was generally reviewed. It includes the following chapters:

Chapter I	Preliminary Regulations
Chapter II	Administration and Legal Authorities
Chapter III	Motoring and Drivers
Chapter IV	Public Registration of Vehicles
Chapter V	Compulsory Insurance for Vehicles
Chapter VI	Sanctions on Traffic Accidents
Chapter VII	Civilian Responsibilities
Chapter VIII	Jurisdiction and Scope
Chapter IX	Penalty and Civilian Actions

One can appreciate, from simply reading list, that the bill thoroughly covers to traffic and traffic administration, with little reference to ground transport, except by some articles concerning drivers and public transport vehicles.

7.4 Operations, Routes and Tariffs of Passenger Interurban Transport

7.4.1 Current Bus Route System

Although the public transport regulation in force clearly specifies the studies and procedures required to create new routes and allocated concessions, it customarily has allocate these route authorizations discretionally for many years.

The new DGTT wishes to introduce order to these procedures and is currently doing so, as demonstrated in an announcemenr in the national press dated October 28, 1994, in which all public bus operators and owners of buses for private use, were required to register their respective licenses and other aspects. This is the first important step to know which and how many operators really exist. This effort will allow the standardization of the operator data since currently this information is not clear nor updated, according to the different sources consulted.

The current public transport routes in the country are organized sequentially. It assigns a number from 1 to 99 to urban routes and from 100 on to interurban routes. Apparently, this numbering system does not indicate the specific characteristics of the routes.

According to the DGTT, there are currently 616 numbered interurban routes, and 33 routes, having not been yet assigned a number and awaiting authorization. This number is not uniform for the different lists provided by the DGTT, nor do they match the lists provided by AEAS. Nevertheless, it gives an idea of the total number of interurban authorized routes nation-wide. MOP's Data Processing Office prepared a list of all urban and interurban operators, by name of the entrepreneur, number of vehicles and routes each of them has; a similar list was prepared later including interurban routes only.

On the other hand, the DGTT also provided a list of all interurban routes by Origin-Destination, entrepreneur and number, including the number of authorized vehicles, frequency or authorized trips per unit, route distance, trip duration and current fares. Based on this information, the summary in Table 7.4.1 was prepared, identifying and quantifying total interurban routes.

TABLE 7.4.1

National Routes Identified by the DGTA

NUMBER OF ROUTES	
Numbered (with information)	496
Without number	33
TOTAL	529
Numbered (without information)	120
TOTAL IN THE COUNTRY	649

Source: DGTT

7.4.2 Distribution of Routes

With the information on routes provided by the DGTT, a new data base was set up and organized by Origin-Destination, from which key indicators were calculated, such as frequency, distance, speed and veh-km.

From this data base, the existing routes were distributed by geographical zone. This is showed in Table 7.4.2

TABLE 7.4.2

Layout of routes with Information (numbered) by Geographical Area

ROUTES BY GEOGRAPHICAL AREA	
Central	161
West	91
East	80
Other (*)	164
TOTAL	496

Source: If includes routes with Origin-Destination in secondary settlements

23

The country's central zone has the most routes in operation. Tables7.4.3 and 7.4.4 present the summary of total and average characteristics of routes authorized by the DGTT. by each departmental capital, as well as information on their operations, authorized bus units, frequency, distance, and veh-km. This summarizes more detailed city level tables calculated by this study. These tables show that there are 3,434 vehicles in service, traveling daily nation-wide; the average distance nation-wide is 36.8 km and the average frequency is 12.3 trips/day per route.

Thus on routes that have information buses run 295,926 Veh-Km daily (vehicles operating times distance). San Salvador concentrates 60.0% of total services.

From Table 7.4.4 it can be also inferred the approximate magnitude of trips made by people in the system and from each city, assuming that authorized trips per route/day are accomphshed in practice and assuming a daily average occupation per trip-bus. If this occupation is to be 30 passanger/trip in average, the total number of trips generated by the country's main cities would be as shown in Table 7.4.5

Unfortunately field information on daily average occupation of buses could not be gathered; evidently if this is different from 30 passenger/bus the above results will vary not

TABLE 7.4.3
Summary of Operation Features - Authorized Routes by D.G.T.T

ROUTE ORIGIN	AUHORIZED ROUTES NUMBER	BUS TRIP/AUTHORIZED DAY	TOTAL BUSES ROUTES ASSIGNED	DISTANCE IN KMS. (ALL)	AVERAGE TRIP TIME	VELOCY KM/HR	TRIPS PER AUTHORIZED DAY(1)	VEHICLE-KM PER DAY(2)
ZONA CENTRAL								
San Salvador	117	2.08	1,610	8,162	2h 12'	34,33	2938	169,420
Cojutepeque	10	4.00	28	201	1h 00'	18,58	109	1,575
Chalatenango	6	1.75	10	110	1h 00'	18,83	22	273
San Vicente	6	3.67	15	193	1h 27'	21,20	46	997
Santa Tecla	6	3.60	30	76	0h 41'	18,92	136	1,572
Sensuntepeque	6	2.50	7	141	1h 21'	21,30	17	342
Zacatecoluca	10	1.90	49	358	1h 26'	26,78	97	3.262
Subtotal	161		1,749	9,241	1h 18'	22,64	3,365	177,441
ZONA								
Ahuachapán	17	3.20	47	773	2h 03'	22,69	119	3,144
Santa Ana	42	2.17	315	1,528	1h 16'	30,79	633	20 644
Sonsonate	32	2.38	178	1,500	1h 33'	31,33	379	16 140
Subtotal	91		540	3,801	1h 37'	28,27	1,131	39.928
ZONA ORIENTAL								
La Unión	10	2.73	69	338	1h 03'	32,22	183	5 528
San Miguel	55	2.04	332	2,565	1h 58'	24,88	617	

TABLE 7.4.3 (continued...)
Summary of Operation Features - Authorized Routes by D.G.T.T

ROUTE ORIGIN	AUHORIZED ROUTES NUMBER	BUS TRIP/ AUTHORIZED DAY	TOTAL BUSES ROUTES	DISTANCE IN KMS. (ALL)	AVERAGE TRIP TIME	VELOCITY KM/HR	TRIPS PER AUTHORI	VEHICLE-KM PER DAY(2)
Usulután	15	2.75	66	.59	1h 23	20.63	195	4.390
Morazán	0	0	0					
Subtotal	80		467	3.362	1h 28'	25.91	995	37.566
Otros (*)	164		554	6,799	1h 39'	24.94	1,186	40.991
TOTAL	496		3,310	19,841	1h 30'	25.60	5,682	295.926
RUTAS SIN	120		124					
RUTAS	8		19					
COUNTRIES	624		3.453					

(*) Including Other Routes with O-D in Secondary Cities (1) Actual Sum Of Individual Products Of Trip/Bus And Buses Number (2) Sum of Products Of Trips/Day Number and Total Of Kilometers (3) Not Including Routes Without Number (33)

TABLE 7.4.4
Features of Authorized Routes in Operation (Average)

ROUTE ORIGIN	TRIP AVERAGE BUS-DAY	TOTAL BUSES PER ROUTE	DISTANCE IN KMS.	TRIPS PER ROUTE AND PER DAY	VEHICLE PER ROUTE-DAY
CENTRAL ZONE					
San Salvador	2	14	70	25	1,448
Cojutepeque	4	3	20	11	158
Chalatenango	2	2	18	4	46
San Vicente	4	3	32	8	166
Santa Tecla	4	5	13	23	262
Sensuntepeque	3	1	24	3	57
Zacatecoluca	2	5	36	10	326
TOTAL	3.0	4.7	30.4	12.0	
WESTERN ZONE					
Ahuachapán	2	3	45	7	185
Santa Ana	2	8	36	15	292
Sonsonate	2	6	47	12	504
TOTAL	2.0	5.7	42.7	11.3	
EASTERN ZONE					
La Unión	3	7	34	18	553
San Miguel	2	6	47	11	503
Usulután	3	4	31	13	293
Morazán	0	0			
TOTAL	2.70	5.70	37.3	13.7	
GLOBAL AVERAGE	2.57	5.37	36.8	12.3	

TABLE 7.4.5

Estimated of People's Daily Trips Total in Public Transportation Generated

ROUTES ORIGIN	TRIPS PER DAY	PERCENTAGE OF TOTAL
CENTRAL ZONE		
San Salvador	88140	44,00%
Cojutepeque	3270	1,64%
Chalatenango	660	0,33%
San Vicente	1380	0,69%
Santa Tecla	4080	2,04%
Sensuntepeque	510	0,25%
Zacatecoluca	2910	1,45%
Subtotal	100950	50,40%
WESTERN ZONE		
Ahuachapán	3570	1,79%
Santa Ana	18990	9,48%
Sonsonate	11370	5,67%
Subtotal	33.930	16.95%
EASTERN ZONE		
La Unión	5490	2.74%
San Miguel	18510	9.24%
Usulután	5850	2.92%
Morazán	0	0
Subtotal	29.850	14.90%
SUBTOTAL	164,730	82.24%
Other	35580	17.76%
TOTAL	200,310	100,00%

the distribution per city. If more occuracy is needed it will be suitable to carry out an investigation by sampling in different bus stations and at different hours of the day, in order to calculate the average occupation and obtain a more approximate estimate of the total of passengers that travel daily on the system. If the former estimate is correct, this implies that the public transport system carriess approximately 67 million passengers annually (considering 365 days of operation per year). Assuming an average fare of ¢7.60 per trip, this would imply daily incomes of ¢1,522,356.00 for the operators and of ¢511.5 million annually.

These estimates of demand and income only include routes with information (496). However, there are 120 operational routes with no information, which represent higher levels of demand and income.

7.4.3 Characteristics of the Bus Fleet

The nation's interurban fleet is currently 3,434 bus units, that operate in predetermined routes, carrying passengers to the different points of the country, based on economic, commercial, tourist, cultural and residential needs.

This fleet, the most common make is from the United States, International, representing 22.89% of the fleet. Following, Table 7.4.6 and Figure 7.4.1 present the makes which currently exist.

TABLE 7.4.6

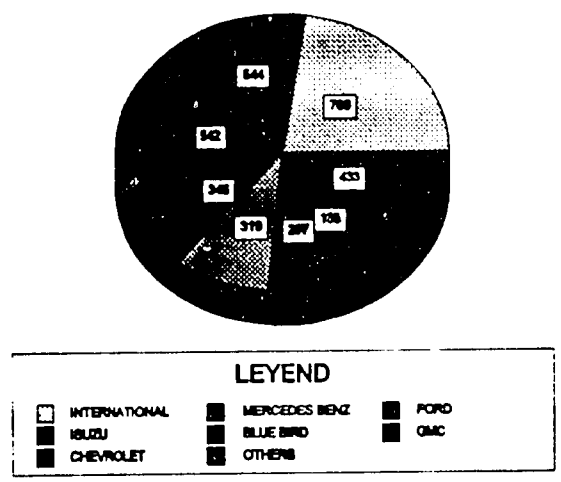
Brans of Interurban Units

BRAND	AMOUNT	PERCENTAGE
International	786	22.89%
Mercedes benz	544	15.85%
Ford	542	15.77%
Isuzu	345	10.05 %
Blue bird	319	9.30 %
GMC	297	8.66%
Chevrolet	168	4.89%
Others	433	12.58%
TOTAL	3434	100.00%

Source: Ministry of Publics Works, DGTT

FIGURE 7.4.1

Distribution by Brand Fleet of Interurban Buses, 1994



Source: Ministry of Public works, DGTT

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Most urban and interurban buses are built with engines, transmissions and other mechanic elements of different makes and bodies furnished by different manufacturers. Moreover, when an engine has been repaired three or four more times, and can not be fixed the owner decides to use a new engine which can be of a different make. Therefore, make shares do not necessariiy reflect the real situation.

MOP data refer to the original make when registered and normally reflects body make. not necessarily that of its mechanic components. For example, new Mercedez Benz imported from Brazil come with CAIO or ROSMO bodies; and the buses registered as International can have engines of different makes, transmissions of different specifications, etc. Later, the DGTT should undertake a detailed study of the current characteristics of the fleet, to analyze possibilities to save on mass imports of spare parts and analyze existing fleet energy consumption.

The age of interurban buses ranges between 1 to 45 years, with an average age of 19.9 years. 52.8% of the buses are 18 years old and 97.7% are more than six years old, which shows the need of an intensive renewal of the fleet in the short term.

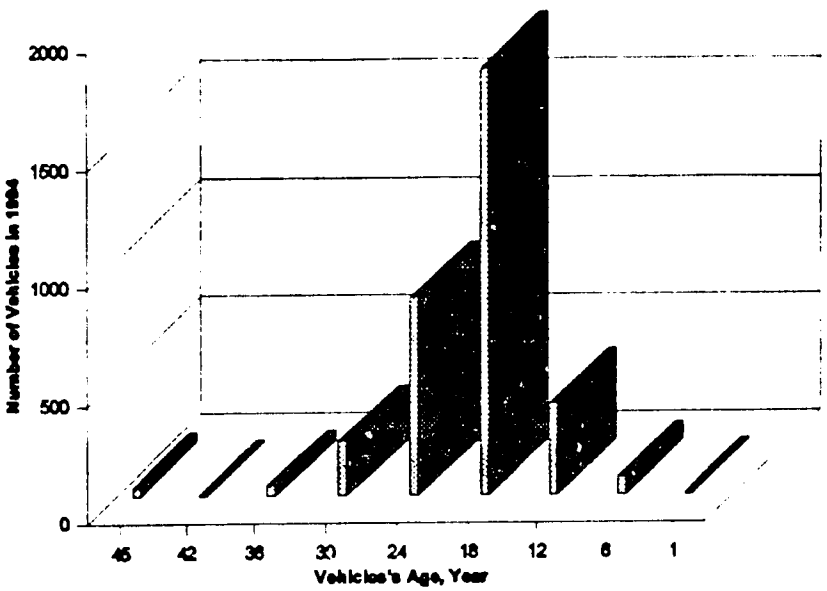
Table 7.4.7 and Figure 7.4.2 present current vehicle ages on interurban routes based on data provided by the MOP, adjusted by this study to the total vehicles in service on operating routes.

TABLE 7.4.7
Ages of Interurban Units

YEAR	AGE	AMOUNT	PERCENTAGE
≥1949	45	35	1.02%
1950-1955	42	3	0.10%
1956-1961	36	44	1.30%
1962-1967	30	232	6.75%
1968-1973	24	842	24.51%
1974-1979	18	1,814	52.81%
1980-1985	12	387	11.27%
1986-1991	6	74	2.17%
1992-1994	1	3	0.10%
TOTAL		3,434	100%

Source: Ministry of Publics Works

FIGURE 7.4.2
Distribution of the Age of Fleet
Interurban Buses Public Transport



The useful life of public buses in developed countries is from 7 to 8 years. After this age, the vehicle becomes obsolete basically due to increased repair costs which are higher as compared with the alternative of buying a new one. In Latin America, where repair labor cost is less, the accepted average useful life is from 10 to 12 years. This would indicate the current need to replace approximately 3,000 units on interurban transport service (87% of the fleet).

Based on the total daily trips, and average seat capacity of 43, it is possible to establish that the total daily seat supply would be 244,326 seats. However, since supply is dynamic and varies according to the frequency on each route, the real seat supply could be estimated by the number of trips per unit, times the number of seats of each unit. For the purpose of this study, the former number presents an approximation of interurban daily transport supply.

Interurban buses can be identified by their green and white colors, with front lettering which indicates its route, origin and destination, as well as places of interest in between. Interurban units do not have air-conditioning and usually have stereos operated by the driver along the route, according to his taste, preference for type of music, etc.

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7.4.4 Tariff Levels

Interurban transport tariffs were traditionally regulated by the DGTT when this department, now ascribed to MOP, was part of the Ministry of Economics. Currently by law, they are regulated by the Ministry of Economics.

The traditional procedure for tariff review is that the owners periodically request a review based on a cost study, and present new suggested fares.

For urban transport, there are two tariff levels: "traditional" service and "preferential". This last has typically more comfortable and newer buses, in good physical conditions. In reality, the only difference between these levels of service is the color of the vehicle, red and white for preferential, blue and white for regular service. The "preferential" tariff is currently ¢1.25 (US$0.14/passenger) and the "traditional" is ¢0.80 (US$0.07/passenger). According to AEAS, most of the urban buses are now charging ¢1.25. The population has grown accustomed to pay such a fare.

Interurban service is much more complex: according to distance, day of the week, hour, type of service (which theoretically can be "express" (no-stop) and "regular", with stops along the route). In reality, on express buses often do not respect the non-stop requirement, but with few exceptions, and charge the express' highest fare anyway.

Table 7.4.8 shows the trend in urban and interurban tariffs in the last years, and Figure 7.4.3 shows the same information along with the general price index, according to the Central Reserve Bank.

As one can observe in the graph, interurban tariffs have grown much less than inflation, possibly due to the impact of the fuel subsidy, which the Government has given for 13 years (see Section 7.6).

Based on frequency (trips/day), distance and fares on main routes, Figure 7.4.9 shows average values weighted by distance, fare paid per trip and fare per passenger/km. The current average fare per interurban passenger/km is approximately ¢0.08/pas-km, and the average fare is ¢ 7.60. Average distance per trip (weighted average) is 61.6 km.

Operators commented that there may be a fare increase for all urban and interurban routes soon because there has not been an increase since September 1992.

7.4.5 Financing of the Fleet

Some years ago (in the period from 1982 to 1988), there was a subsidy for the import of buses, new and second hand trucks; the import duty did not exist at all for these types of use.

TABLE 7.4.8
Increase Fares in the Last Year(1)

YEAR	TRANSPORT FARES		PRICE INDEX TO THE CONSUMER
	INTERURBANO	URBANO	
1.977	100.00	100.00	100.00
1.978	110.00	105.00	113.30
1.981	115.50	110.20	172.20
1.982	121.30	115.70	195.37
1.986	145.50	144.70	423.41
1.989	196.50	188.10	739.25
1.992	294.60	282.10	1162.00

Souce: AEAS(Autonomous Entrepeneus Association of El Salvador)

(1)Calculated Indexes based upon fares in 1977 and occurred percentage increases

FIGURE 7.4.3
Increase on Transport Fares

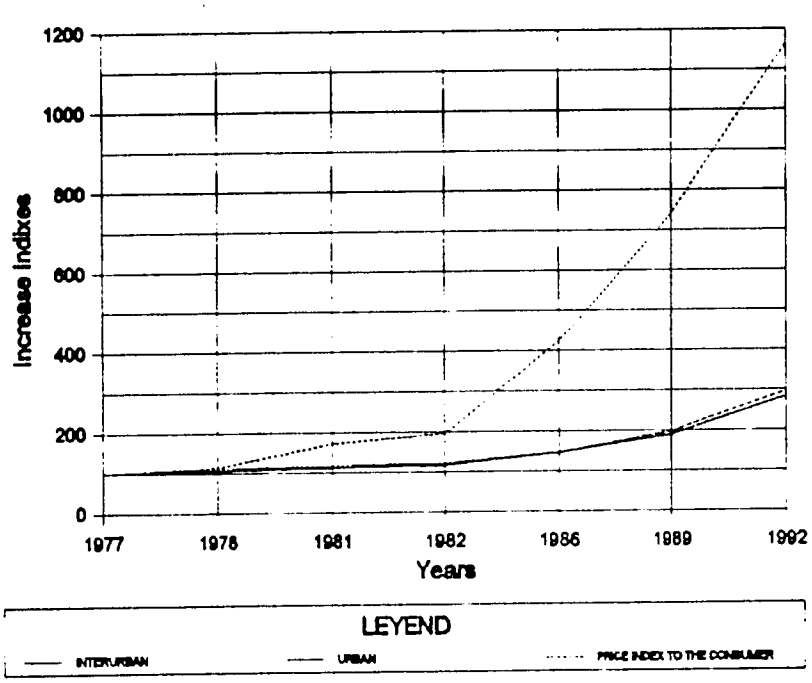

TABLE 7.4.9
Distance Average of Main Origin-Destination Paired-Trip

ORIGIN	DESTINATION	TRIP/DAY	KMS.	¢/FARE	TRIP/DAY KMS.	¢/FARE - KMS	¢/FARE/KMS
Ahuachapán	Santa Ana	80	39	2,5	3,120	97,5	0,064
	Sonsonate	47	20	5,1	940	102	0,255
	San Salvador	61	87	5,1	5,307	239,7	0,059
Santa Ana	Sonsonate	92	38	3,9	3, 496	148,2	0,103
	San Salvador	205	57	4,2	11,070	239	0,074
Sonsonate	San Salvador	264	65	4,2	17,160	273	0,065
La Libertad	San Salvador	118	35	3,1	4,130	109	0,089
San Salvador	Chalatenango	78	82	4,8	6,396	394	0,059
	Cojutepeque	242	34	2	8,228	68	0,059
	Zacatecoluca	222	57	4,2	12,654	239	0,074
	Usulután	46	114	8,9	6,384	1015	0,078
	San Vicente	117	60	4,8	7,020	288	0.080
	Sensuntepeque	45	84	7,6	3,780	638	0.090
	San Fco.Gotera	3	170	11	510	1819	0,063
	San Miguel	86	138	10	11,868	1435	0,075
	La Unión	25	185	13	4,625	2479	0,072
TOTALS		1731,00	1265,00		106,688	9583,40	1.360
Average	Dist. and Fare				61.63	7,60	0.080

Source: Own Processing, Data From DGTT

vehicles. Taking advantage of this period, many used diesel buses entered the country (AEAS estimates from 2500 to 3000 units) from the United States after about 8 years of use.

Many of these vehicles were placed in urban service, but some were also for interurban use. Nowadays, the observer can see a great number of old units (60's models of the interurban service in the United States, some even with two rear axles) that currently run in relatively good condition, on the streets of San Salvador, as a result of that policy. These vehicles can be obtained at low cost in the U.S. market for school buses and public transport, and they have benefied their Salvadoran owners and passengers. Nevertheless, this policy has now disappeared. The operator which wishes to import a bus should pay a customs duty of 5% on its CIF cost, plus the 10% value added tax (IVA).

Recently, GOES establishes through the Multisector Investment Bank and Investment Loan Fund (SETEFE), a credit line up to ¢125 million for the purchase of new or used bus units, at market interest, 10% initial premium, 8-years credit for new vehicles and 5-years credit for used ones, with a 3-month grace period in both cases.

These credit lines also offer financing to build new terminals for passenger and freight transport, purchase of spare parts and the repair of used buses. The reported rate for these loans in June 1994 was 15.25%, according to data from the Central Reserve Bank. However, with banking commissions this rate was 18% in November, the Salvadoran Bank reported.

According to AEAS, this ¢125 million credit line is about to run out with the purchase of 120 new up-to-date buses of which approximately 5 went to interurban service. Most of the new buses have Mercedez Benz engines and CAIO, ROSMO and MARCO POLO bodies, some imported from Brazil and others from Guatemala, at an average purchase pricet of ¢500,000. According to AEAS, it seems that entrepreneurs have reached an agreement with the Central Reserve Bank to renew the credit line for and other additional ¢125 million. AEAS currently has 150 applications from its members to this credit line. ATP and AEAS sustain that during the conflict of the 80's, 1500 urban and interurban buses were burnt and the Government should provide facilities and incentives to replace the lost fleet.

Both associations, AEAS and ATP, coincide that the main priority is to obtain facilities and incentives to renew the fleet.

7.4.6 Operating Permits and Creation of Routes

According to regulations, to create a route and give a new line permit requires a bid and a feasibility study on providing service to those zones that are without. In the same way, to give a line permit for existing routes, supply and demand analysis is needed on the

existing routes; the DGTT would have no other way or criterion to know whether it should increase the existing routes or create a new one.

The general procedure in the regulation is correct; however, its application presents two important problems: 1) Many times the procedure is not followed as it should, and officials in charge decide, on their discretion or criteria, whether it is convenient or not to issue licenses or service permits; 2) If the procedures are followed, this is too bureaucratic, complex and time-consuming since it needs the action of the information area, the chief of the Service Department and his/her technical assistant, the chief of the Operation Division, Legal Department, Sub-management, Director of Licenses and Permits, and again the Sub-management. Since it is not a flexible, clear and prompt procedure, there are a lot of possibilities for rejecting the application if this does not meet the interests of any affected party. On the other hand, the DGTT does not have transport engineers specialized in demand studies, and well trained as to carry out technical studies and objectives. Finally, all of the numerous DGTT procedures are performed for free, which makes no sense.

The results of these deficiencies in DGTT's internal operating procedures are often observed in excessive permits for existing routes (excess of supply), affecting the first concessionaires who generally have served a route for many years. In other cases, it can happen otherwise: not enough operators are appproved for a route (insufficient supply), affecting the quality and frequency of service, leading to conflicts.

The DGTT and its policies of "continuity" or "change" in traditional behavior and habits in relations among the transport sector, labor sector (specially the "dispatchers"), and Government, can make a great difference in future sector development, and favorable development and growth that the private sector may have in coming years.

Regarding new concessions and permits, there are diverse -even opposite- opinions in the specialized technical literature on whether complete deregulation is convenient, with the open participation of all transport entrepreneurs that want to provide the service. Supporters of this theory state that the market forces balance, supply and demand sooner or later Supporters of the regulation of routes and the market, on the other hand, state the existence of technical, economical and fair reasons that make total "deregulation" not be the best way to achieve adequate balance between sypply and demand. Evidently, in all public transport systems there are good, regular and bad routes, from the point of view of demand, and therefore, the operator. Naturally, if there were total "deregulation" in the system, with open participation of operators and fares, most operators would try to serve the most attractive and advantageous routes, and totally abandon less profitable routes of a social nature. In countries in which the total "deregulation" concept has been tried, like Chile, results were negative, so the authorities had to back track.

7.4.7 Diesel Subsidy

Because of its importance, this issued is addressed separately in section 7.6.

7.5 Indicators of Current Level of Service

7.5.1 Waiting Time and Frequency

As indicated above, the average frequency of all interurban routes is 12.3 trips/day (Figure 7.4.4), varying departure intervals according to hour of the day and days of the week. Service frequency is higher in early morning hours and at dusk, with little service in between, precisely when demand is low. The average daily interval is 73 minutes, but at rush hours it is lower. This estimate is made by calculating the inverse of the average frequency, divided into 15 hours of daily operation.

Frequency and interval also vary a lot depending on the served route. The best routes, with higher demand, such as San Salvador-Sonsonate, San Salvador-Zacatecoluca and San Salvador-Cojutepeque, have a larger number of units and make 264, 222 and 242 trips per day, respectively; routes with lower demand, such as Ahuachapan-San Salvador, Ahuachapan-Santa Ana and Usulutan-San Miguel, make only 61, 80, and 82 trips per day, respectively, with a low average frequency. This happens everywhere and is part of the free game of demand and supply in which the "market" economy functions.

In fact, transport operators stop their units during low demand hours as it is cheaper than to travel with almost empty buses. There is a self regulating supply mechanism, according to variations in demand per hour and day that seems to work very well in El Salvador's interurban routes and is carried out by entrepreneurs, optimizing their profits. Surely there are many routes and hours in a day in which demand is low, even for the "good routes", and the user should wait several hours to catch a bus to his/her final destination.

7.5.2 National Coverage (Including the 115 Municipalities Affected by the Conflict)

To analyze the current system coverage of interurban routes, all routes were drawn over two maps of the country on which the main population centers are indicated (Copy of these maps were delivered to the DGTT and the originals to AID). Map analysis of the coverage of the current route system led to the following conclusions:

- All main cities and towns of the country are currently served by at least one route that connects them with the main centers of economic activity.

- Origin-Destination pairs that are the best served in terms of high frequency are:

- San Salvador-Sonsonate, Cojutepeque, Zacatecoluca, La Libertad.
- San Salvador-San Vicente and San Salvador-Santa Ana.
- Santa Ana-Sonsonate, San Salvador-San Miguel, Ahuachapan-San Salvador, San Salvador-Chalatenango.
- Ahuachapan-Sonsonate, San Salvador-Usulutan, San Salvador-Sensuntepeque.

There are many origin-destination pairs that do not have a direct route, as shown in Figure 7.5.1.

TABLE 7.5.1
Pairs of Origin-Destination Without Direct Routes

ORIGIN	DESTINATION	ORIGIN	DESTINATON
AHUACHAPAN	La Libertad Chalatenango Cuscatlán Zacatecoluca Usulután San Vicente Cabañas Morazán San Miguel La Unión	USULUTAN	They only have Direct Route to Zacatecoluca, SanVicente y San Miguel.
SANTA ANA	Same Destinations as Ahuachapán; do not have a Direct route	SAN VICENTE	It only has Direct routes to San Salvador, La Paz y Usulután.
SONSONATE	Same Destination Ahuachapán, except La Libertad; do not have Direct Route	CABAÑAS	It only has Direct Route to San Salvador.
LA LIBERTAD	Same Destination as before, exept Zacatecoluca, do not have Direct route	MORAZAN	It on has Direct Route to San Salvador.
CHALATENANGO Y CUSCATLAN	It only has Direct Route to Salvador.	SAN MIGUEL	It only has Direct Route to Salvador, Usulután y Morazán.
LA PAZ	They only have Direct Route to San Salvador, La Libertad, Usulután and San Vicente.	LA UNION	It only has Direct Route to San Salvador y San Miguel.

Source: Own Processing based on Routs List

- There is a low frequency of trips/day for the following origin-destination pairs:

  La Libertad-La Paz, San Salvador-Morazan, San Salvador-La Union, La Paz-Usulutan, Usulutan-San Vicente, and Morazan-San Miguel.

As for the analysis of the coverage of the 115 municipalities affected by the conflict, the conclusions are:

- Most of these 115 municipalities (103) have currently at least one bus route that serve their inhabitants' travels to a larger town or urban center. There are 12 towns without transport service: Santa Rosa de Guachipilin, El Rosario, Jutiapa, San Esteban Catarina, Jerusalen, Nuevo Eden San Jan, Alegria, Ereguayquin, San Fernando, San Simon, Sensembra, Jocoatique (see Figure 7.5.2).

TABLE 7.5.2
Towns Of The 115 Municipalities Which Do Not Have A Route

WESTERN REGION	CENTRAL REGION	EASTERN REGION
Santa Rosa Guachipilín	El Rosario	Nuevo Edén San Juan
	Jutiapa	Alegría
	San Esteban Catarina	Erequayquín
	Jerusalém	San Fernando
		San Simón
		Sensembra
		Jocoaitique

Source: Own Processing Based on the DGTT's List of Routes

- There are 17 towns served only by routes to San Salvador. These towns are: San Matias, Las Vueltas, San Ignacio, La Palma, San Fernando, Aguacaliente, San Francisco Gotera, San Antonio Los Ranchos, San Isidro Labrador, San Jose Sancasque, El Paisnal, Guazapa, Nejapa, San Jose de Guayabal, Cinquera, Tejutepeque, and Santa Maria Ostuma.

- 49.5% of the 103 municipalities are served by routes that have a frequency of more than 10 trips/day, which indicates that service is acceptable. Figure 7.5.3 summarizes the total frequency of bus units that travel to each of the 103 municipalities with service. This is not the origin-destination trip frequency in these municipalities. Rather, trips made through each town have been summed up.

- Most of the routes that serve these municipalities use pretty old vehicles in very poor conditions. None of these municipalities have bus terminals for interurban routes, although most are small towns which do not need them.

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7.5.3 International Coverage

International route coverage to neighboring countries such as Costa Rica, Nicaragua, Panama, Honduras and Guatemala is adequate. Currently there are express services from the International Terminal Station on Ave. Juan Pablo II in San Salvador to these countries; this is a private, modern infrastructure recently built.

Table 7.5.4 shows current existing route features from the San Salvador International Terminal, frequencies, fares and routes.

Existing international services are generally of poor quality since the units are old and uncomfortable. Fares vary between ¢45 to Guatemala and ¢130 to Honduras, one way, depending on the bus line and the type of vehicle. The frequency to Guatemala is good (every hour, from 5:00 a.m. to 12:00 m), which it is limited to Honduras (one service every 8 hours).

There are, however, high quality daily tourist services with fares of US$45.00 to Guatemala, $75.00 to Panama, $35.00 to Nicaragua, $50.00 to Costa Rica and $15.00 to Tegucigalpa. Bus units are new, provide good service to the client and stop by main hotels to pick up clients. Except for the low quality of ordinary service, there is not other important coverage problem in this area. Although ground transport regulation includes international service, in reality the DGTT does not intervene even in setting fares. This is a competitive non-regulated market in while there are several levels of service and different types of fares.

7.5.4 Speed and Transfers

As shown in Figure 7.4.3, the average time per trip on interurban routes is one hour 30 minutes; the average distance is 36.8 km. Thus, the average theoretical speed, calculated with these data is 24.5km/h. According to the DGTT list, average speed is 25.6 km/h. These data do not include traffic density, stops and other unexpected factors on route, which finally determined the so-called "commercial speed".

The average speed of 25 km/h for all routes is considered very low, given the acceptable conditions of most main highways and secondary roads. Speed could be increased, and operating costs would be saved, if main highway conditions were improved. In fact, interviewed entrepreneurs said this is one of the problems affecting commercial speed and increasing operating costs.

The true number of transfers interurban passengers must make to reach their final destination was not surveyed. Nevertheless, based on current route structure, key origin-destination pairs not covered by express service were analyzed, drawing the following results:

TABLE 7.5.3
Frecuency Analysis of Trips/Day to 115 Municipalities(1)

Population	Trips/Day
Western Regions	
Quezaltepeque	390
San Pablo Tacachico	354
San Matías	170
Texistepeque	90
Masahuat	8
Central Region	
Apopa	314
Guazapa	251
Aguilares	113
El Paisnal	111
Ilobasco	80
Sensuntepeque	60
Santa Clara	56
Guacatecti	47
Suchitoto	44
San Sebastián	43
Guadalupe	40
Apastepeque	40
Verapaz	26
Cítalá	25
La Palma	25
San José Guayabal	24
San Pedro Nonualco	22
Tejutepeque	16
Tonacatepeque	15

Population	Trip/Day
Central Region	
Paraíso de Osorio	14
Victoria	11
Dolores	10
Tenancingo	10
Nejapa	8
Aguas Calientes	7
Santiago Nonualco	6
Mercedes la Ceiba	6
Tecoluca	5
Nombre de Jesús	4
San Antonio de la Cruz	3
San Francisco Morazán	2
Ojos de Agua	2
Santa María Ostuma	2
San José Las Flores	1
Arcatao	1
Nueva Trinidad	1
El Carrizal	1
La Laguna	1
San José Cancasque	W/I
San Isidro Labrador	W/I
Sn. Antonio los Ranchos	W/I
Las Vueltas	W/I
Cinquera	W/I
San Ignacio	W/I
San Fernando	W/I

Population	Tips/Day
Eastern Region	
El Triunfo	242
San Rafael Oriente	171
Concepción Batres	167
Tecapán	106
Santa Elena	93
San Jorge	85
Delicias de Concepción	76
Yoloaiquin	76
Anamoros	60
Santiago de María	56
Estanzuela	52
Osicala	50
Berlín	37
Jucuapa	34
Ciudad Barrios	28
Corinto	26
Poloros	24
Lislique	21
Concepción de Oriente	16
Chinameca	15
Sesori	12
Jucuarán	12
Torola	10
El Rosario	10
Nueva Granada	7
Carolina	7

Population	Trips/Day
Eastern Region	
San Gerardo	6
San Dionisio	6
San Francisco Javier	6
Jiquilisco	6
Guacolocti	5
San Isidro	5
Arambala	5
Joateca	5
Chapeltique	4
Perquin	4
Cacaopera	3
Meanguera	2
Sociedad	2
California	2
Guatagiagua	W/I
Nueva Esparta	W/I
San Luis de la Reina	W/I
San Antonio	W/I
Yamabal	W/I

W/I =Without Information

W/I= Without Informati

(1) Total of Routes that daily pass each Population
Source: Own Processing, based on route map

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TABLE 7.5.4
International Bus Station, Authorized Routes

ROUTE N°	COUNTRY (DEPARTURE)	DESTINATION	OFFICIAL FARE	UNITS	DEPARTURE INTERVAL	INITIAL HOUR	TIME LAST BUS	ROAD
415	El Salvador	**Guatemala** Quality	¢ 45.00	2	1 Hour	04:45 am	17:50 pm	Las Chinamas
415	El Salvador	**Guatemala** Off. Pessarosy	¢ 60.00	3	1 Hour	04:00 am	16:00 pm	Las Chinamas
415	El Salvador	**Guatemala** Transmer Galgos	¢ 45.00	2	1 Hour	10:00 am	16:00 pm	Las Chinamas
415	El Salvador	**Guatemala** XIMENITA	¢ 60.00	2	1 Hour	07:00 am	16:00 pm	Las Chinamas
415	El Salvador	**Guatemala** TACA	¢ 60.00	3	1 Hour	04:00 am	16:40 pm	Las Chinamas
415	El Salvador	**Guatemala** Daniel Express	¢ 45.00	2	1 Hour	08:00 am	16:30 pm	Las Chinamas
415	El Salvador	**Guatemala** Futuro	¢ 45.00	2	1 Hour	05:00 am	17:00 pm	Las Chinamas
415	El Salvador	**Guatemala** MELVA Express	¢ 45.00	4	1 Hour	04:30 am	16:00 pm	Las Chinamas
401	El Salvador	**Tegucigalpa** HONDURAS Cruceros del Golfo	¢ 130.00	1	8 Hours	06:00 am	13:00 pm	Panamericana
401	El Salvador	**Tegucigalpa** HONDURAS Cruceros del Golfo	¢ 130.00	1	8 Hour	13:00 pm	06:00 am	Panamericana
415	El Salvador	**Antigua Guatemala** King Quality	$45.00	1	1 Hour	06:00 am	11:00 pm	Las Chinamas
402	El Salvador	**Panamá** TICA-BUS	$75.00	1	1 Daily	05:30 am	WI	Ruta Militar
402	El Salvador	**Managua** NICARAUA TICA-BUS	$35.00	1	1 Daily	05:30 am	WI	Ruta Militar
402	El Salvador	**San José** COSTA RICA TICA-BUS	$50.00	1	1 Daily	05:30 am	WI	Panamericana
415	El Salvador	**Tapachula** MEXICO King Quality	$65.00	1	WI	05:30 am	WI	Las Chinamas
415	El Salvador	**Guatemala** TICA-BUS	$8.00	1	1 every hour	05:30 am	05:00 a.m.	Las Chinamas
401	El Salvador	**Tegucigalpa** Honduras TICA-BUS	$15.00	1	1 Daily	05:30 am *	05:30 a.m.	Panamericana
401	El Salvador	**Tegucigalpa** Honduras KING-QUALITY	$ 50.00	6	8 Hours	13:00 pm *	06:00 am	Panamericana

WI= Without Information WI= Without Information

- From Santa Ana, Ahuachapan, Sonsonate and La Libertad to San Miguel, Usulutan, and other central and eastern cities.

- From Chalatenango, Cuscatlan and Zacatecoluca to La Union, San Miguel and other cities in the east.

This generates the need to transfer between San Salvador terminals, inconveniencing passengers.

- There are similar situations between some cities and towns in the Central region, the east and the west, and vice-versa; for example, San Vicente, Cabañas and Morazan, where passengers usually must travel to San Salvador in order to take a route to other important centers in the west and the east.

- There are some origin-destination pairs in the east which do not have an express route. Such as, from cities in Usulutan and La Union, and Morazan-La Union. In fact, La Union is only connected to San Miguel and San Salvador.

7.5.5 Terminals and Comfort

Main interurban terminals were visited and analized qualitatively for comfort and operations for dispatchers, operators and users. The results demonstrate that:

- The East Terminal, in San Salvador, does not have adequate facilities to meet the needs of dispatchers, operators and users. The terminal does not even have minimum infrastructure; it is a total jumble, uncomfortable and unhygienic for everyone working or coming there.

- Conditions at the West Terminal, in San Salvador, are similar to the East Terminal, although it is a bit more organized and cleaner.

- The South Terminal, in San Salvador, is in worse condition than the West, even though it is newer and its installations seem to be provisional.

- San Miguel and Usulutan Terminals are in very poor condition.

- The Santa Ana Terminal is in as poor a condition as the East Terminal in San Salvador.

In summary, except for the International Terminal, existing terminals in El Salvador are very deficient and do not supply the minimum service to users, operators, and workers, as well as becoming centers of social degradation.

User comfort is another important aspect, while traveling in the vehicle and the service she/he receives from the driver and collector.

Vehicle comfort deals mainly with age and internal features (upholstery, type of seats, cleanness, ventilation, height of steps at entrance and exit, doors, etc.). Attention to the user fundamentally depends on the manners, presentation and courtesy of the driver and collector.

As stated, the fleet's average age (19.8 years old) indicates that the vehicles are very old and not appropriate for interurban service. Although average trip distances in El Salvador are not high, a comfortable interurban service requires more modern, comfortable buses with entrance and lateral exit doors, low steps at exits, reclining seats with fabric upholstery, etc.

7.5.6 Results of User Survey

To get an independent opinion separate from the DGTT and operators regarding quality of service, fares and other aspects, a short and fast survey was designed and performed on a random sample of users of the interurban transport services. The form used for the survey is in Annex 7.5.1. The survey was carried out from October 17 to October 30, 1994, in the West, East and South terminals in San Salvador, and in the San Miguel and Usulutan Terminals in the east.

Total interurban transport service questionnaires were:

West Terminal	152
East Terminal	184
South Terminal	39
Usulutan Terminal	23
San Miguel Terminal	27
TOTAL	425

Annex 7.5.2 provides more detail on the results of these surveys.

Since there were no data on the number of travelers using public transport to develop a statistical sample; and since formal survey of this type was not foreseen within the scope of the study, the consultant decided to carry out limited interviews to have an independent

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user's perspective. Statistically, results are not representative and therefore, it is advisable that the DGTT carry out further surveys of this type with a larger sample.

a. Trip Purpose

The main purpose for sampled travelers was "work" or "business", which is logical since the sampled urban centers concentrate most of the economic activity that generates jobs and business.

Another important purpose for travel was "family visit", which showed high percentage even at the South Terminal. One of the reasons is that persons who study or work in the main urban centers travel periodically to the interior to visit family, and vice-versa.

Only a very low percentage of interviewed persons travel for "pleasure". This may be because persons are not economically well off for this type of trip; on the other hand, the mechanic condition and appearance of the units do not encourage such trips.

Accordingly, the survey indicated that if people travel by interurban buses it is because they have to (due to work, business or family); they do not travel for "tourism" or "pleasure".

b. Classification and Service Quality

In general, people interviewed classified comfort as "regular" or "poor" (67%) and pointed out that this should improve. Only a 7% considered that comfort is excellent, and only 26% considered it good.

As for time of trip, 37% indicated excessive stops in route. In many cases bus operators make stops on an express service, charging indeed a higher fare. Users have the right to complain about this.

Most of the interviewed users (53%) considered the current level of fares adequate, for both day and night, in accordance with bus conditions. Nevertheless, some (21%) said that fares are high, even present conditions. Another important aspect regarding fares: 23.1% of users state that fares on some routes are frequently overcharged at a higher rate than the official level established by the DGTT.

Regarding bus courtesy, most users (69%) classify it as "regular" or "poor". Many of them stated that drivers and collectors do not have adequate manners to properly service passengers during the trip.

c. Use Trip Frequency

Most users (53%) travel between 1 to 10 times per month, due to personal business, family or other commitments. A fair number of users (30%) complete from 20 to 30 trips per month, a characteristic of the passenger who travel to work or study in larger urban centers and reside in neighboring towns. This indicates that the user is not an occasional passenger, but a regular, frequent "cautious" passenger who knows very well the characteristics of the service since he/she is constantly using it.

d. Transport Mode Preference

Firstly, most persons prefer to travel by bus as the most economic means to travel to their destinations; second, they prefer the minibus because it is a fast and express service, although fares are a little higher. This is an important finding when analyzing fare policies and implementating new services. A small percentage of interviewed users prefer the taxi cab. This alternative is taken only in emergency cases with urgent things to do.

e. User Willingness to Pay a Higher Fare

Most users (79%) answered that they would agree to pay a higher fare if there is a true change in quality and conditions of the units that supply the service. They also expressed their wish for better comfort with better buses; second, quicker service and third, better attention. This is an important survey result which indicates, to authorities and transport entrepreneurs, the elasticity of demand and fares with an improvement in service quality.

f. Frequency in Accidents and Mechanical Breakdown

A high number of passengers (61.7%) said they have had at least one accident or a mechanical breakdown while traveling, and only a minority (38.3%) said they never did. This shows that security and reliability are complicated aspects that should be improved. On the other hand, from interviews with operators it was found that bus owners are not required to have civil responsibility insurance, which constitutes a failure in the system.

Reliability in the service is normally defined as the probability of:

- Service works on time and properly.
- Trip finishes on schedule.
- Safe trip.

There are no studies which statistically evaluate these factors; however, in the sample user survey, 61.7% had had an accident at least once. As for the probability that the vehicle leaves on schedule, departure times and intervals were observed to be well

controlled and regulated by DGTT dispatchers, and operators must meet them to recieve the fuel subsidy.

g. Drivers Skills

Most users stated that drivers' driving was regular (41%) or unsafe (29.2%). This indicates a compelling need for the Government and operator to take action to establish educational programs for bus drivers.

7.5.7 Interurban Passengers Transport Conditions

Following is a summary of the main conclusions regarding the quality of the passengers analysis:

a. Basic System Data

There is relatively limited basic organized, updated and systematized information on the sector. This study provides the basis for the data organization which GOES (VMT - DGTT) should permanently implement.

b. Institutional and Legal Aspects

- The office in charge of regulation, the DGTT, does not now have the necessary resources to carry out an efficient modernization, regulation and administration of the present system, and continue with poor habits and custom of many years, which need to be eliminated and changed. VMT support is required to modernize and technify, to become more flexible and efficient.

- The Consultant suggests that the VMT contract legal and technical assistance to draft a fair traffic law and good regulations.

c. Regulations and Concessions

- Many DGTT staff are dedicated to tasks of regulation and control, mostly to control the granting of the diesel subsidy.

- There is a set of rules in the Public Transport Provisional Regulation that are not followd in any way. On the other hand, complex DGTT procedures tend to make the entry of new operators very difficult. Apparently non-technical criteria prevail in the concession of operating permits, leading to irregularities and distortions in the

supply-demand balance which limit sector growth. The DGTT should thus reorganize with new functions and simplified procedures.

d. Enterprises and Management Practices

- There are few public interurban transport enterprises as such. Most of them are individual operators and transporters. Only six entrepreneurs own more than 10 buses. This atomization of vehicle owneship and route operating permits make regulation and control tasks difficult for the Government to carry out on its own. It also makes it difficult for entrepreneurs to achieve scale economies in operating costs and bus maintenance.

- There are no technical training and assistance programs for entrepreneurs, drivers, collectors and other transport industry workers to meet this need.

e. Routes, Distribution, Frequency, Demand

- The exact number of routes is unknown, even after this study. Nevertheless, the DGTT reported 649 national and 8 international routes, for a total of 657. Of this total, 120 routes lack information, and 33 apparently operate without a number. This is a irregular situation that should be analyzed and regulated shortly.

- Of the national routes for which there is information, 332 are for services originated in the departmental capitals and 164 in secondary towns. From the 161 routes in the central zone, 72.6% have their destination in the country's capital, 91 are in the Western zone and 80 in the East.

- Among the sector's national indicators there is a total of 5,682 daily trips of interurban buses, which travel a total of 295,926 Veh-km, carrying approximately 200,000 passengers daily (assuming an average daily capacity of 30 passengers per bus per trip).

f. Current Service Quality

- During the day, the average waiting time for interurban service is approximately 36 minutes (half of the interval). Nevertheless, at rush hours average intervals between buses are lower. In reality, buses fill tor capacity fast at rush hours, so user waiting times do not exceed 10 to 15 minutes on average. Some Origin-Destination pairs have a

high number of trips per day whereas others have a low frequency, as detailed in the section on bus routes. Self-regulation of the number of needed trips seems to work adequately, although on Friday afternoons and Monday mornings there are long lines for some services.

- National coverage to all main population centers of the country is adequate as all are connected to at least one important economic center. There are several Origin-Destination pairs between main cities, which are served now with a high frequency. Others, however, have a very low frequency.

- There is an important number of Origin-Destination pairs that do not currently have an express route, due to the high centralization in the departmental capital, specially in San Salvador.

- As for the 115 municipalities affected by the conflict, their coverage is adequate. Only 12 towns (10.4%) have no service. Half of the routes have more than 10 trips/day. On the other hand, 17 municipalities have only service to San Salvador.

- Generally, existing terminals are inadequate, not organized, nor do they fulfill their purposes. An important effort is needed to modernize the main terminals.

- Vehicle comfort is very poor due to their condition. They are very old, averaging 20 years . Other factors that affect comfort are the poor attention of drivers and collectors, and excessive stops, even on express trips.

- Largely due to the buses advanced state of deterioration, due to age and lack of maintenance, they are major sources of pollution, due to emissions, smoke and excesive noise made by motors and exhausts.

g. Mini-buses and Pick-ups

- *Service currently supplied by some interurban routes of mini-buses,* apparently without official permits, *should be analyzed technically through a supply-demand study of the service they are operating.* Based on the results, the DGTT should decide whether to give out new permits or not.

- *There is no national policy on interurban mini-bus service.* DGTT should define basic criteria on this policy, based on which it could continue to let further public bids on new routes, perhaps serving secondary routes, as suggested before.

- Although the interurban mini-bus route system is relatively reduced, there is a tendency for them to compete with interurban buses on the most productive routes and increase their market share, generating unfair competition since buses are faced with the illegal informal system of pick-up trucks. *Generally this tendency is not good for healthy growth and should be restricted to certain local routes that serve lower demand.*

7.6 Analysis of Current Subsidy Program

7.6.1 Fuel Subsidy Legal Basis, Conditions

In 1974, GOES implemented a fuel subsidy without any legal basis, for public transport vehicles, giving them a preferential price of ¢1.00 (US$0.40) per gallon. Under this system the entrepreneurs were refunded the difference with respect to the ordinary price to the public. Each entrepreneur registered with the DGTT and chose a service station; later the Ministry of Economics refunded the difference. This system, however, was very annoying and complex.

In July 1981, by Accord No. 862, November 1981, and after a national transport strike during President Duarte's government, the system was modified with a better card control, keeping the subsidy for all authorized public service, both urban and interurban. This subsidy is given to the operator through a lower price (currently ¢1.87/gal) than the price the public has to pay (¢8.05/gal) for diesel consumed by each benefited bus, with some limits and conditions later agreed by GOES and operators (which were not included in the creation of the subsidy decree).

Accord No. 862 establishes that the Government can overcharge the public price for fuel, in general, to subsidize diesel for public transport vehicles. Decree 762, reformed by Decree 399 and complemented by Decree 847, implements the Stabilization and Economic Strengthening Fund (SETEFE) and the Economic Stabilization Account to finance the diesel subsidy. Accord 46, January 1994, sets up the maximum value that can be allocated for diesel at 2,900,000 gallons/month.

7.6.2 Number of Beneficiaries

Table 7.6.1 indicates the number of urban and interurban public transport units benefited by this subsidy in 1994. These data were obtained from the Data Processing Office of the Ministry of Public Works.

TABLE 7.6.1
Beneficiaries of Current Fuel Subsidy

Category (1)	Total Subsidized	Subsidized Urban	Subsidized Inter-Urban	Total No Subsidized	Non-subsidized Urban	Non-Subsidized Inter-Urban
A	24	10	14	1,188	1,084	104
B	572	111	461	58	25	33
C	4,045	1,646	2,399	370	175	195
Pref.					714	
Spec.					83	
Total	4,641	1,767	2,874	2,413	2,081	332

(1) Categories defines number of seats per unit
Source: DGTT

7.6.3 Subsidy Management Mechanisms. DGTT Role and Controllers

The current subsidy management system is based on two cards issued to all transporters every month. The first card is given to the transporters and the second to the gas station. Each time the transporter puts fuel in the tank, the employee of the gas station marks on both cards the quantity of fuel supplied, as for an ordinary bill. By the end of the month, the DGTT compares both cards to verify that the amounts are the same and makes necessary adjustments, based on unconsumed fuel, number of day worked, etc. Then, the DGTT approves the fuel station bill and issues two new cards for the next month. Currently this process is two months behind.

Even with the "delegates" appointed by the DGTT and paid by the transport industry, it is known that there are many irregularities in the distribution and use of subsidized diesel, in favor of transporters and other persons not in the business, increasing industry operating costs by as much as ¢80 million per year, according to figures provided by AEAS. These overcharges have to be transferred from the transporters to the users through higher fares.

Even though the current subsidy is a cross subsidy from other fuel users to fuel for public transport, so there is not a direct cost to the State, there are better ways to use these funds to benefit public transport and users, as described on the following pages and in Task 8.

7.6.4 Total Subsidized Fuel and Cost

Table 7.6.2 shows subsidized diesel volume and value for mass transport in the last 5 years, provided by the Ministry of Economics. There has been a percentage decrease in the total subsidy amount in the last years, except in 1993, when there was a slight increase in relation to the former year.

TABLE 7.6.2
Volume and Diesel Subsidy Value

YEAR	DIESEL	SUBSIDIZED GALLON (Colones)*	PRICE DIFFERENCE (Colones)*	TOTAL AMOUNT OF SUBSIDY (¢)	VARIATION IN RELATION TO FORMER YEAR (%)
1990	6.60	1.70	4.90	231,565,734	—
1991	7.00	1.70	5.30	220,005,688	(5.00)
1992	7.00	1.70	5.30	188,872,585	(14.15)
1993	7.10	1.70	5.40	196,971,598	4.29
1994	7.40	1.70	5.70	160,587,948**	(18.31)

* Forecast Based on data up to september 1994
** Without IVA
Source: Ministry of Economics

lthough the total subsidy has decreased in the last years, if measures are not taken as long as public transport demand increases, the subsidy will again increase, at least up to the limit set up by the Government, of 2,900,000 gallons monthly ¢198,360,000 at a price of ¢5.70/gal.

7.6.5 Conclusions on the Subsidy's Impact on Operator Efficiency and Fares

The current subsidy system seems to present many difficulties, such as:

- It needs tremendous human resources for control and administration.
- Even with these resources, there are currently many irregularities. In many cases, the subsidized fuel ends up in the hands of persons alien to the transport sector or of transporters who not longer have buses in operation.
- Transporters receive about half the program's total amount, if the data provided by them is true.
- The current distribution system is based on the number of vehicle seats and does not take into account the real number of passengers that are transported.

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- The current program, based on a very limited analysis of routes and operations, indicates that the elimination of the subsidy would have increase costs to passengers by 35%, for an entrepreneur operating an old bus unit, and 17% for entrepreneurs owning new units for the cases studied, **which can not be generalized to the interurban transport sector.**

7.6.6 Discussion of Alternatives to solve Deficiencies

For reasons indicated before, the following main alternatives are presented:

a. Total Elimination of Current Subsidy

The first alternative presented is to eliminate the current diesel subsidy program for public transport, both for urban and interurban buses. At the same time, by the decree of elimination of the subsidy, the VMT could implement the following fare policies:

- Establish different urban fare classifications, according to the age of vehicles in service and to the results of the operating costs studies of urban transport routes, which should be carried out as soon as possible. Based on the new fare system, new buses (1-3 years old, for example) could have the highest fare rates; buses from 4 to 8 years old could have lower fares and the oldest, even lower. In this way, operators would be encourage to renew their fleet.

- The interurban fare policy should be established based on a more complex and detailed analysis than the one carried out in this study, for a more representative sample of different types of routes. According to the preliminary analysis done in this study for two routes, taken as representative, the impact of eliminating the subsidy for interurban routes is between 17% and 35% of current fares (see section on the impact of the subsidy).. Therefore, and since there has not been a fare increase since September 1992, **if the interurban subsidy is eliminated, it would be necessary to set fare increases as determined by a special study of the tariff system.** Nevertheless, a fare policy classified according to vehicle model would also be convenient.

These tariff increases should be accompanied by important improvements in vehicle comfort and the attention given by drivers and controllers.

b. Gradual Elimination of the Subsidy

One alternative for the gradual elimination of the subsidy would be to start eliminating the subsidy only for the oldest units. For example, units of more than three or five years old would not get the subsidy; the newest units would get the subsidy both for urban and interurban buses, as a mechanism to help the entrepreneurs finance fleet replacement. Then:

- There would not be a fare increase higher than the inflation experienced since September 1992, based on current official fares.

- Subsidies for all units of more than three to five years old would be eliminated.

- Resources remaining from the elimination of the subsidy for most of the present units could be reallocated through the special account mechanism of FEFE (Stabilization and Economic Strengthening Fund), to cover the difference between a lower preferential interest rate and the market rate (to finance the acquisition of new units).

These two alternatives should be evaluated by the VMT for their economic, political and social impacts, considering also the results from a more detailed study on this topic developed by the Ministry of Economics under contract with a specialized consultant.

c. "Transport Ticket" System

A third, although medium-term alternative, would be to eliminate the current urban transit subsidy and replace it with a subsidy for entrepreneurs to buy new units using the mechanism suggested before, as well as implement the "Transport Ticket" system used for many years in Brazil through which employers pay their employees a part of the monthly transport budget, the Government subsidizes transport for students, the unemployed, informal sector workers, the elderly and physically deficient. The remaining passangers pay higher fares that cross subsidize the beneficiaries through the Government's assistance. Nevertheless, to implement this system requires a more organized transport sector, and a stronger and more organized regulatory institutional structure than the present one. All this can be achieved within a period of two or three years.

In conclusion, the VMT should carefully assess the political and social implications of eliminating the current fuel subsidy. This decision should be tied to fare policy decisions (both urban and interurban) and may have unexpected consequences if they are not carefully evaluated nor negotiated with transport entrepreneurs. **Nevertheless, from the technical and transport point of view, GOES should totally eliminate the current subsidy**, as indicated in alternative "a", which implies the adoption of a new fare policy. If VMT considers this not a feasible alternative, politically and socially, then it should adopt alternative "b", the gradual elimination described before.

7.7 The Economics of the Public Transport Industry

In order to evaluate the subsidy's impact on industry, the following analysis was carried out.

7.7.1 Survey on Public Transport Operators

In order to estimate sector operating characteristics, costs, income and profitability, and due to the lack of an adequate, recent study of these aspects, a survey was carried out of transport operators. This was a very limited survey due to time restrictions and resources. Nevertheless, the results were useful to develop important criteria regarding short-term measures the DGTT should take, in order to solve some of the most immediate problems.

Eleven entrepreneurs representing individual operators and owners of small-scale enterprises were interviewed according to the form described in Annex 7.7.1.

Representative data of capital costs, operating and maintenance costs, transported passengers, kilometers traveled, etc, were selected. Based on these data, a simple cost model was built in order to obtain cost estimates per passenger. Profitability of investment (both fixed and working capital), was calculated based on an interest rate equal to the sum of the bank interest rate (cost of opportunity) and return to the entrepreneur's management, estimated as 25% annually. This was added to the cost per passenger to get the fare. This method of estimating costs and fares is fairly standard and similar to that applied in other countries such as Costa Rica, Venezuela, and Brazil. The DGTT should implement this or a similar methodology to estimate fares and apply it periodically to revise fares, based on input cost increases and demand variations, for representative routes of similar route sets, terrain, and highway conditions.

7.7.2 Survey Results

The survey includes old buses, already depreciated, and new units, so the results are presented separately for each of these two types of buses. More representative and important data used to estimate costs and incomes are detailed in Table 7.7.1

TABLE 7.7.1
Representative Data of Passenger Survey

BUS COST	OLD DEPRECIATED (1)	NEW: ¢630.000
Transported Passenger/Day	325	125
Run Kilometer/Day	150	230
Travel Time	1.5 hours	5 hours
Daily Frecuency (trip/day)	3	1
Routes Analyzed	San Salvador-Quezaltepeque	San Salvador-Usulután

(1) Due to being minimun the residual value, it is simplified the analysis Source: passenger Survey

Results from the model developed for old buses are shown in Table 7.7.2. Likewise, results from the cost model for a new bus are detailed in Table 7.7.3.

TABLE 7.7.2
Result on cost Model for Old Buses
(San Salvador - Quezaltepeque Route)

	COST IN	COLONES PER	PASSENGER	TRANSPORT
	WITH SUBSIDY	%	WITHOUT SUBSIDY	%
Administration and Personel	0 55	41 75	0 55	30 91
Operation Cost	0 30	23 21	0 75	43 15
Maintenance Cost	0 42	32 26	0 42	23 89
Depreciation	0 00	0 00	0 00	0 00
Financing Expenses	0 00	0 00	0 00	0 00
Utility	0 04	2.78	0.04	2 05
Totals	1 31	100.00	1.77	100 00
Fare	2.10		2.10	
Result	0 79	37 62 (1)	0 30	15 71

(1) % of profitability on fare

Source: Own processing

TABLE 7.7.3
Results on Costs Model for New Buses
(San Salvador - Usulután Route)

COST COMPONENT	COST IN	COLONES PER	PASSENGER	TRANSPORT
	WITH SUBSIDY	%	WITHOUT SUBSIDY	%
Administration and Personel	1.43	19.48	1.43	16.67
Operation Cost	0.69	9.4	1.93	22.49
Maintenance Cost	0.77	10.49	0.77	8.97
Depreciation	0.92	12.53	0.92	10.72
Financing Expenses	3.03	41.29	3.03	35.32
Utility	0.50	6.81	0.50	5.83
Totals	7.34	100.00	8.58	100.00
Fare	8.70		8.70	
Result	1.36	15.63 (1)	0.12 (1)	1.38

(1) % Of profitability on fare
Source: Own processing

These results were obtained by adding and grouping cost components reported by operators for one month, in the indicated categories and dividing by the number of passengers carried monthly.

However, the following analysis is only an example of the study DGTT should carry out soon to set fare policy. It is too small a sample and the results are not good enough to apply the conclusions to the entire system.

Operating costs/passenger vary greatly according to the route studied, current supply, passengers carried, and management practices. **These data should be taken with caution and should be improved with more detailed analysis, for more routes and conditions.**

7.7.3 Diesel Subsidy on Interurban Fares

The values provided here (tables 7.7.2 and 7.7.3) are only ranges based on a very limited study. A full tariff review requires more detailed study. These results indicate for the specific cases studied, which are surely not representative of all cases, that with the subsidy, operating costs currently represent 23.2% of costs per passenger for old buses. Without the subsidy, the operating cost would represent 43.5% and its total cost would be increased by 35% (1.77÷1.31x100). This indicates that if the subsidy was removed now, for entrepreneurs owning old vehicles, fares should increase if one did not wish rates of return to be reduced.

For an entrepreneur owning a new bus, operating cost, including the subsidy, represents 9.4% of total costs per passenger. If there were no subsidy, operating cost would represent 22.5% of total cost per transported passenger. This in turn would be 16.9% [(8.58-7.34x100] higher than the total cost with subsidy. Therefore, the elimination of the subsidy in this case would also imply a fare increase to avoid a decrease in profit.

A lower fare increase for entrepreneurs owning new buses is justified because the cost structure has a very high financial component, while the entrepreneur owning the old bus does not, since the vehicle is already depreciated and paid, so that the relative burden of operating cost is much higher.

This indicates that DGTT should theoretically give higher fare increases to entrepreneurs owning old vehicles. Nevertheless, in reality, the data presented in the figures indicate that the profitability of "old" entrepreneurs is twice that of "new" entrepreneurs, at the expense of supplying a service with old vehicles of poor quality and not well maintained. Thus, as part of a policy to improve and renew the fleet, the DGTT should allow a higher fare increase to the entrepreneur owning new vehicles in order to:

- Provide them with an adequate return on their investment.
- Establish an effective policy to encourage fleet replacement.
- Improvement service quality, according to the vehicle selected by the users.

7.7.4 Possible Fare Trends, with or without the Diesel Subsidy

Since the analysis of fare trends indicates that fare increases have not kept up with other price increases, and since the last fare increase took place more than two years ago, rising fare pressure from entrepreneurs is expected soon.

If the current fuel subsidy system is not changed or eliminated, still it is expected an increase, to be defined by a special tariff study. If the decision is made to totally eliminate the subsidy, entrepreneurs owning new vehicles should obtain an increase to sustain a small profit on investment capital. This should be validated with a more detailed analysis.

The above considerations suggest fare and fleet replacement policies that differentiate the fare and/or subsidy, according to the bus' age. In reality, this policy can be implemented with fare stickers visible on the buses.

7.8 Recommendations to Increase Efficiency and Improve the interurban Public Transportation Service

Based on the analysis described before, conclusions and indicated alternatives, institutional recommendations have been made to modify the recently created VMT in order to effectively carry out its ground transport planning, management and regulatory role. These modifications are detailed in Chapter 1 of this Study were Transport Sector Management and Coordination is studied as a whole.

7.8.1 Recommended Analysis and Studies

The following recommendations are made to the DGTT in relation to additional analysis and studies, which should be made by contracting technical assistance until the DGTT acquires enough experience.

a. Data Collection and Organization of a Data Base

The Consultant recommends the DGTT begin as soon as possible a permanent program to collect information about specific bus characteristics, or about the profitability of operations which, together with other field research, will provide the base for important reforms in route structure, new permits, rates and other policies necessary to improve the service.

As a minimum, the basic information which the DGTT should systematize include:

- A complete and updateddate base about the authorzed route system and those in operation, lenght of travel, authorized number of vehicles and trips, entrepreneurs, etc.

- Updated and complete data about the vehicle fleet in operation, buses, minibuses, taxis, their makes, ages, characteristics, etc.

- Updated information about operating costs of the urban and interurban public transport enterprises, necessary for the cost studies which should be carried out by the Technical Commission.

- Data resulting from research on route demand off-and-on studies, and origin-destination studies, etc.

b. Analysis of the Balance of Supply and Demand of Services

The scope of this Study does not allow for a detailed analysis on the balance of supply and demand, and of the rates of each one of the main routes currently existing in the country. However the study has made a preliminary analysis of frequencies in the system which indicates possibe strong imbalances in the quantity of services supplied in the different regions of the country. It is important that the VMT carries out, as soon as possible, a detailed analysis of supply, demand operating costs and rates on a representative sample of the main types of interurban routes, in order to: 1) Make updated information available in order to discuss possible request of new rate increases, 2) Provide judgement elements to decide on the convenience and/or need to introduce extensions to the service of exiating routes, and 3) Update the route inventory, enterprises, fleet and other characteristics of the service. These studies should be prepared by the DGTT in the short term together with specialized consultants, and in the medium term, in a continued and permanent manner, if the recommendations made in this Study regardine the Transport Regulation Committee are accepted. Guides for Terms of Reference on these studies and others less urgent are included in annex 7.8.1.

c. Laws and Regulations

Further, the review, reform and completion of laws and regulations for public transport is recommended, so that the new DGTT may carry out a more efficient, technical and transparent job, within the State modernization process which the country requires and that the Government is committed to carry out.

7.8.2 Regulations of the Sector

It is the opinion of this Study that, in relation to the regulation of services, moderation should be the criterion to guide the authorities in this aspect. Specifically in the case of El

Salvador, a historic tradition of regulation exists both for routes and rates, which has been acepted and forms part of the system currently in operation in the country and, with its natural failures, provides the whole urban and interurban services. A minimum of regulations should exist, which insures the availability of an adequate service at all the locations required, with competitions among transporters and a rate regulation, which while incentive to replace the vehicle fleet and improve the service, protects users from possible abuses by transporters.

a. Creation of New Routes

The creation of a Ground Transportation Regulatory Committee is recommended in Chapter 1, to make recommendations about important decisions. Specifically with relation to the creation of new routes and granting new operation permits, VMT should simplify its current procedures as much as possible, reducing the time for processing a request and technifying and training the technical study unit so these are carried out by transport professionals with extensive knowledge and experience in the analysis of supply and demand, all within the concept of restructuring and technification of the DGTT.

For example, in order to authorize a route, or increase the service, the procedure could be the following:

1- Request to the DGTT: The operator should fill out a route request in which he demonstrates that he has a company duly constituted, that knows the business or has experience, which has x amount of vehicles for public transportation in good conditions and that such route is required because demand exists, or due to lack of vehicle.

2- Sent of the application by the DGTT to the Ground Transportation Regulation Committe: The committee should study the request and analyze, through demand studies, if this route is really needed (when new), or if it lacks units.

3- Study and answer from the Committee to the DGTT.

4- Answer from the DGTT to the petitiones.

The DGTT should answer within a pre-established period, which requires qualified technical personnel. Procedures should be cut down as well as unnecessary steps from one desk to another, collecting signatures which mean nothing and delay the process.

b. Other DGTT Functions and Procedures

Other DGTT functions and procedures, such as transfer of lines, vehicle substitution, modification of the currently approved operating system, service reduction or extension, change of routes and ways, changes in departure points, permits to repair and re-incorporate, are less important than the aspects mentioned above, due to its lower impact on the equilibrium of the supply and demand. However, like the others all these procedures should be simplified in order to be evaluated and processed much faster.

The Consultant recommends:

The creation of a new reform unit (or a similar name) at hte DGTT with the purpose of starting and maintaining a constant simplification and re-channeling of processes, with qualified personnel.

Request a technical assistance service to support the DGTT and the reform unit in the re-engineering and computing procedures and steps still assigned to the DGTT.

Study and define an institutional strengthening program for the Operator Associations in order that in the medium term, they are able to participate in a mutually agreed self-regulation of service standards.

Study the possibility of defining for some specific procedures, automatic authorization of requests filed by transporters when observations from the DGTT are not received within pre-defined periods. This will be an alternative, for example, for the substitution or repair and re-incorporation of vehicles.

All this is appropiate if our recommendations to strengthen the whole sector are followed. This study can not analyze in detail each of the many current procedures, especially, if a new general regulation for transit and transportation is to be approved. It does not make sense to detail all these changes in current procedures, if new transit and transportation laws are to be approved with their respective regulations which will change the legal frame work within which these procedures are going to operate.

Another essential function is that the Environmental Office of MOP should prepare an environmental impact regulation and should create a small group for environment control related with interurban transport.

c. Privatization and Financial Autonomy

There are some services at the DGTT which may be privatized, such as the inspection of vehicles, and the control of itineraries and services. Concessions for construction and operation of terminals are possibly the most important source of potential income to the DGTT.[1]

All services provided by the DGTT should have schedule of tariffs and not be given for free as currently happens.

Possible income sources for the DGTT may be vehicle inspection costs, the cost of granting routes, which should cover the costs of the study, and leave a remainder and fines on infractions to operators of interurban routes.

Of course, all these ideas should be studied in more detail and the systems, procedures and rules should be designed for concessions and rates, since in some cases these ideas may be feasible, but in other cases could be problematic from a legal and practical point of view.

7.8.3 Legal Reforms and Regulatory Simplification

The VMT and its legal advisors should be clear from the beginning whether the new traffic law should cover only "traffic" or whether it should also include "public passenger transport", "terminals" and "cargo transport", areas not yet covered by modern, updated legislation.

The new law should be broad and complete, including these four areas, if it would be called "Ground Transport Law". It is timely for El Salvador to design a modern and complete law that provides an adequate regulatory basis for the traffic and public transport sector. The new laws should be designed so as to reduce regulations to a minimum, so as to encourage and promote private sector participation through specific references to mechanisms such as routes allocations by bids, construction of terminals by private concessionnaires, etc. Thus, the consultant recommends:

- Specialized technical assistance to review the law under study to later enact the new Traffic Law, updating the old Traffic Regulation. The Costa Rican law model is adequate, although other laws may be consulted such as the Venezuelan Traffic Law Project.

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[1] A strict inspection is recommended, under concession to the private sector, each 6 months, of all units to verify vehicle condition of the exhaust, the emission of fumes by engines in bad cditions, etc.

- The new law should include generalities, global policies and the philosophy on the Government intervention in the transport sector, and the general regulatory basis for each on the four main areas mentioned before:

  - Traffic
  - Ground Public Transport
  - Urban and Interurban Passenger Terminals
  - Ground Freight Transport

- Together with the law's approval, a detailed regulation should be approved for each of these components. Highway planning, construction and administration should not be included since they are the responsibility of another area within MOP. The new law should define Government management responsibilitiest and the role and responsibilities of each of the following organizations: Ministry of Finance (MH) and the Traffic Office of the Civil National Police, and the Vice-Ministry of Transport.

- Review the Public Transport Transitory Regulation, which should also be simplified as soon as possible, based on the example of the Costa Rican Remunerated Transport Regulatory Law of Persons traveling by Vehicles, specially with reference to bids and concession allocations, and the implementation of the Ground Transport Regulatory Commission within the same law.

- Regulate the new law on more specific aspects. The Regulatory Commission, once implemented, can be in charge of this; regulations such as standardized public transport vehicle characteristics, minimum specifications for bus terminals, statistics entrepreneurs should furnish the VMT, etc.

- Specify in the new law the demand conditions and characteristics which justify new routes and minibus service, perhaps only for low level demand routes.

- Make civil responsibility insurance compulsory with enough accident coverage for damage to vehicles, persons and third parties involved.

- Analyze the legal feasibility for using resources of the Special StabilizationAccount and Economic Strengthening Fund in the General Budget and Special Budget Law of Autonomous Official Institutions, to carry out the proposed changes in the subsidy system discussed below. This may require changes in the said law.

7.8.4 Strengthening Operator Management

The brief analysis carried of operator characteristics and administration shows the need for the VMT, through the DGTT, to carry out the following efforts:

- Promotion of the strengthening individual owners-operators in to small and medium public transport enterprises that can have an administrative structure, accounting procedures required and accepted by the DGTT, statistics regarding their operating characteristics and demand, etc. The development of these type of enterprises will facilitate DGTT control and regulation, and also should contribute to somescale economies in the acquisition of spare parts and in maintenance costs. **Towards this goal it is recommended that the VMT request from the IDB or the World Bank some technical assistance to look into the stregthening of cooperatives or public transport associations.**

- Carry out an intensive labor training program for public transport workers, specially drivers and collectors, enterprise accountants and administrators. These training programs could be jointly sponsored by the VMT, AEAS and ATP.

- Promote fiscal incentives and price reductions and exonerations for entrepreneurs of certain minimum size, for income declaration and to import parts, spare parts and new vehicles for Public Transport.

GOES and DGTT should seek means to promote small and medium firms for interurban transport; whether co-ops, associations or firms, is secondary. It is important that commercial entities be created which can provide good services, earn profits and grow, technify, modernize and improve services in a competitive environment. This requires GOES to define and implement a full and coherent policy providing the incentives for it to happen. If GOES does so, the privete sector will respond because demand for better service will always be there. The policy guidelines dearly laid out in this report can be summarized as follows:

- A dynamic rate system with reasonable returns.

- A strengthened DGTT with the minimum of needed regulation.

- Policy coherence and continuity which regulate and offer the private sector incentives. (Also see Annex 7.1.1)

7.8.5 Fuel SubsidyProgram

a. The Elimination at the Subsidy

An analysis of inter-urban public transport costs and fares demonstrated in preliminary terms the incidence of fuel cost item in the cost structure of the operation, and in total costs per passenger. (see tables 7.7.2 and 7.7.3).

It seems that a consensus exists at government and entrepreneur level in relation to the need to limit, or to totally abolish the existing fuel allowance for public transport. In fact, in January 1994 Agreement No. 46 was decreed, through which, funding margin of allowances is limited (MFS) to a maximum ceiling of two millions nine hundred thousand gallons per month of diesel destinated for passengers public transport by bus. Present VMT policy is not to grant an additional allowance to new public transport units that incorporate to the market.

Because of these reasons, it is recommended:

- Depending on the evaluation of political and social consequences that VMT has to carry out, and of the results of the study on such subject being carried out by the Ministry of Economy, decide about the total elimination of the present program, or its gradual elimination, with new rate policies accompanying such measures and the allowance to finance the replacement of the vehicle fleet, both urban as inter-urban.

- Start studies for future introduction of a crossed allowance system through the "Transport Ticket", as exists in Brazil, looking forward to introduce such system in a medium term (three years).

b. The Delegates

The delegates key role is to control the fuel subsidy. The problem comes from the fact that the subsidy's beneficiaries pay the delegates although they are supposedly DGTT employees. If the Consultant's recommendations to gradually or totally eliminate the current subsidy, not many delegates would be needed to merely control normal interurban transport operations. Only a few would be required to control terminal arrival and departures, intervals, hours of operation and vehicle condition; and few to control excess passengers. All should be paid by DGTT. Eliminating the subsidy would thus require pensioning the delegates with the required years of service and terminating the others. The DGTT will not need a controller for each firm or route; the operators have and need their own controllers at the terminals; the DGTT only would need a few to control operator

7.8.6 Fleet Replacement and Financing

One of the most relevant aspects found in the analysis of characteristics of the existing vehicle fleet for inter-urban public transport, was that the average age of the fleet is 20 years. Therefore it is prioritary, that the GOES through the VMT adopts a clear and specific policy towards a gradual renovation of such fleet. At present approximately 3,000 buses have served more than twice of the normal useful life of a vehicle of this type. Therefore, it is required and recommended that the VMT designs, as soon as possible, a gradual replacement program of at least 600 buses per year during the next five years taking into account the financial capacity of the subsector, that is the financial capacity of its operators.

The operators financing needs depend entirely on the percentage of the vehicle to be financed, interest rates and terms. In addition to replacing the existing fleet (of about 3,500 vehicles) over five years, funds should be programmed to meet additional demand (through 2015, interurban trips should increase by 3.3 times). This should also be scheduled to replace the fleet as units reach 8 years, or a maximum of 10 years with good maintenance.

With this purpose, it is required that the VMT defines, establishes and implements a new preferential financing policy for new public transport unit, urban and inter-urban. If GOES adopts the before recommendations about the partial or total elimination of the diesel allowance, could have available such funds of the Special Account for Stabilization and Economic Promotion, to finance preferential interest rates, with at least five points less than the market rate, through the related law reform, and through the new National Transport Fund which we suggest to be created.

Besides, it is recommended that the VMT facilitates the possibility of total exemption of the present 5% tax burden to import new vehicles, and if possible, eliminate the IVA burden for the same purpose. In this form, it will also be convenient that transport entrepreneurs have preferential Income Tax incentives and customs duty discounts for transport cooperatives which need to import parts and spare parts for public transport buses. Only the elimination of duties and IVA would reduce vehicle cost by almost 20%. These measures would be incentives for existing and potential bus owners.

However, this will only be successful if:

- Tariffs are authorized providing for returns to pay off the vehicles and have a reasonable profit.

- Private firms are formed with debt and management capacity.

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- GOES shows the political will to improve transport and strengthen its capacity to manage the program.

7.8.7 Improvements in Coverage, Frequency, Comfort, Safety and Other Factors from the Point of View of the Users

From the point of view of the present services rendered by inter-urban routes to public transport, in this Study, even though very briefly, several important deficiencies have been diagnosed in different aspects of service, coverage, frequencies, comfort, etc. However, it is considered that the most important has been to establish an analysis methodology, in order to be able to repeat them, improve them, make them even more extensive and detailed, by the DGTT. Therefore, the first recommendation is:

- Extend and complete the coverage, frequencies, comfort, costs, etc., analysis, with new and more detailed analysis over a bigger sample or routes, covering new areas of the country, and realizing new analysis about Origin-Destination of Passengers, number of transferences and characteristics of the demand served by the routes (Studies about ups and downs, and productivity).

- In relation to coverage of routes, and depending on more detailed studies about offer-demand to be carried out by the DGTT, it is recommended the creation of new routes to serve the following pairs of Origin-Destination: Ahuachapán-La Libertad, San Miguel, Usulután and Zacatecoluca, Santa Ana to the same destinations, Sonsonate to the central zone of the country and San Miguel, Zacatecoluca to San Miguel and Santa Ana.

- In relation to the frequency of the service, it is recommended that vehicles and trips assigned per day be reviewed for the following routes: Sonsonate-San Salvador, Santa Ana-San Salvador, Sonsonate-La Libertad, Zacatecoluca-La Libertad, Zacatecoluca-Usulután, San Miguel-San Salvador.

- The comfort aspect can be improved in different ways: a) in the origin and destination of the trip, through better terminals, as may be seen in the next item, b) in the same vehicles, through a better vehicle fleet, as was recommended before, and c) applying the rule of not allowing passengers standing up during inter-urban trips, and based on this to require that buses that want to benefit from the new rates to be introduced next year, carry out improvements inside vehicles.

- In relation to non-safe service of pick-ups, if it is proved after a detailed study of offer and demand in routes feeding main highway routes, that market has space for a feeding type service to and from the rural areas with little service, an alternative that is worth to be evaluated is to let the DGTT regulate the introduction of service of micro-buses, with certain minimum characteristics of comfort and size in such feeding routes. In this case, the DGTT may incentivate and give facilities to pick-up operators to improve towards a micro-bus service, possibly given them preferential facilities to purchase such vehicles, in the same way in which it is given to bus owners who want to renovate and improve their present fleet.

- The integral drivers' and collectors' training and education program recommended and which should be promoted jointly by the DGTT and transporters (AEAS and ATP) should produce improvements in attention to users. In the future, it should be demanded as a condition to renovate route authorization permits, the presentation of the certificate that their drivers and collectors approved such courses.

- Establish a limited control system of driver and collector labor records

7.8.8 The Need of an Integral Study of Terminals

The lack of adequate terminales to accommodate passengers and inter-urban transportation vehicles in the main cities of the Country is a deficiency that besides affecting visually and environmentally the urban surroundings were such activities are developed at present, directly affects the comfort of passengers and transporters, and operations efficiency. Therefore it is an urgent need to carry out the "National Plan for Inter-urban Passenger Transportation Terminals" as soon as possible, then carry out the corresponding designs and look for funding and adequate promoters within the private sector in order to build new terminals at the earliest. This is a very important part of the comfort and efficiency concept for operators and for the sector, and GOES should give priority to this aspect within the overall improvement of the sector, and the urban surroundings were they are located. Because of these reasons, the following is recommended:

- Carry out through a contract with a specialized consultant a preliminary concept planning and design study of the main terminals required in the country.

- Future studies on the subject of terminals should typify different types of terminals for smaller cities other than San Salvador, and should consider the design of three different terminals for San Salvador; one for the routes to the

East, another for the routs to the West and one more for the routes to the South-East.

The new terminals should be planned to eliminate the current disorder, contributing to less noise, emissions and smoke.

7.9 Necessary Investments in Public Interurban Transport

The investment program recommended in this study, as a result of the analysis formerly described, is as follows:

7.9.1 Replacement of the Public Transport Fleet

Vehicle acquisition investments to replace the public transport fleet are estimated based on the price of the vehicles recently acquired by the country's transport entrepreneurs, through the existing credit line in the Salvadoran Central Reserve Bank; these are Mercedez Benz vehicles imported from Guatemala for about ¢500,000.00 (not including banking commissions). This is an approximate figure that could be lower if buses from other countries are imported, such as from Mexico or Venezuela. However, due to the proven quality and efficiency of Mercedez Benz buses, world-wide and in Latin America, specially in Brazil, this figure has been taken as reference value to estimate total investment needs.

Based on this unit value, and the need to replace approximately 3,000 interurban buses, the total investment operators need to make is ¢1,500 millions for the next years, according to the investment schedule shown in Table 7.9.1.

TABLE 7.9.1
Investments Needed to Replace the Fleet (¢)

YEAR	No. OF BUSES TO BE REPLACED	APROXIMATE REPLACEMENT COST (¢)
1995	600	300,000,000
1996	500	250,000,000
1997	800	400,000,000
1998	800	400,000,000
1999	300	150,000,000
TOTAL	3000	1,500,000,000

Note: Investment for expansion and future fleet renewal every 8-10 years, not included.
Source: Fred Harris, Inc.

7.9.2 Interurban Terminals

To determine the approximate amount needed to build interurban transport terminals, a planning and feasibility study is needed, with size of terminals according to current and future demand. The scope of this study does not allow us to go into such details, however, judging by the current size and conditions of the existing terminals in San Salvador, the following short-term terminal construction projects are needed nation-wide, through private sector concessions:

- Three terminals located on the outskirts of San Salvador: one for routes coming from the West, one for routes coming from the East and another for routes coming from the South and East by the coastal highway.

- New terminals for cities in Santa Ana, La Libertad, Sonsonate, San Vicente, Cabañas, San Miguel and La Union. Evidently some of these terminals should be smaller, depending on studies.

7.10 Interurban Freight Transport

7.10.1 Sector Organization, DGTT's Role

Before the creation of the VMT, the National Police's General Directorate for Traffic managed, along with the Ministry of Finance, the registration of vehicles and license plates.

The planning, analysis and implementation of truck transport policy are currently among the new VMT's functions. The creation of enterprises, equipment import needs, or transport equipment production, permits for the usage of the highway network, and the establishment and control of freight terminals are part of the VMT's new functions.

On the other hand, the MOP's General Directorate for Roads has been regulating vehicle traffic on public highways and roads in the country since 1973, paying attention to vehicle weights, freight and measurements.

The DGC has controled and regulated weight per axle since that year.

Depending on the way in which the VMT establishes the new Traffic Law under study, these functions could be under the DGTT, the suggested new Engineering Directorate, or continue under the General Directorate for Roads, at least regarding weight control per axle.

By analogy with other functions, the DGTT, within the new organizational scheme of the MOP and the VMT, would deal with everything related to freight transport regulation.

Nevertheless, since the most important existing regulation is weight control per axle, besides the obligatory vehicle registration, freight license plates and international transport permits one could also consider setting aside this last function to the change, with the resources and experience to make it more effective, the DGC, leaving the remaining functions in the hands of the new General Directorate for Vehicular Transport, DGTAU, suggested for creation within the VMT.

7.10.2 Legal Foundation

The 1946 General Traffic Regulation includes freight transport and all aspects related to freight vehicles. Articles 66 and 67 establish general and specific regulations for freight vehicles, the transport of certain types of freight, weights and other related aspects.

Based upon Article 17 of the Highways and Secondary Roads Law wich establishes MOP's responsibility to regulate vehicle traffic, decree 86 of december 1973 was issued establishing weight, cargo and driver control regulations.

7.10.3 Regulations

As could be determined in this study, national freight rates have not been historically regulated, except for the transport of fuel and cement, which were regulated by the Ministry of Economics until January 1994. Product transport no longer regulated by the Government.

There does not seem to be any explicit GOES policy related to freight transport. It is a sector that in reality is totally "deregulated", in which there is free competition and little interference by the GOES.

Since there are no current rate regulations for freight transport, some rate guidelines are formulated by the transporters themselves, which are ofte in practice not followed, specially when there is excess supply (trucks not in use).

The registration of freight vehicles is another requirement to be presented to authorities upon demand. The fee depends on vehicle category and weight[2]. Truck license plates are changed every five years. For international transport in sealed vehicles, since 1990, by Central American customs covenants , an International Traffic Guide is required to accompany shipments through several countries to customs at its final destination.

7.10.4 Institutional and Legal Constraints

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[2] *Formerly, for example, a trailer paid ¢900.00 annually; the new registration fare was recently increased to ¢1,800/year for this same type of vehicle.*

Transporters indicated that government organization existing laws and regulations do not constitute a constraint to the future development of the industry. Transporters only mention that weight control per axle affects the volumes that they can transport per trip, and therefore increases their unit operating costs. On the other hand, transporters said weight control per axle is positive and convenient, as it saves on their maintenance and operation costs, and prevents overloading pavement structures. They argue and admit that evasion of effective control of weight per axle is generalized in El Salvador, and throughout Central America, thus lowering costs per ton, and enhancing earnings. They argue that when some transporters get involved in these practices, the remaining are compelled to follow to not be at a disadvantage. These practices have thus become the general rule.

The consultant supports the freight control program implemented by the DGC; however, ASETCA affirms that the economic impact of the evasion of weight control per axle by the transporters, is broadly compensated by the freight increase that they obtain while overloading the vehicles. Therefore, transporters do not perceived weight control per axle as a restrictive factor to sector growth. Weight control is analyzed more in detail in section 3 of this study.

7.10.5 Trucking Industry

The trucking industry is analyzed from the point of view of firms, associations, cooperatives, fleet characteristics and volumes. This industry is totally managed by the private sector, for all practical purposes.

7.10.6 Enterprises, Associations, Cooperatives

The DGTT does not have detailed records of trucking firms or vehicle fleet. The Salvadoran Freight Transport Entrepreneurs Association, ASETCA, includes 518 firms that represent approximately 90% of organized businesses in the country. There are also many individual transporters with one, two or three vehicles, but a record of them does not exist.

ASETCA has its own cooperative, ACOSETCA, that supplies transporters with spare parts, and other inputs; even with currently reduced volume, it is trying to broad its coverage by taking steps to obtain preferential commercial credit lines.

7.10.7 Freight Fleet Characteristics

According to data provided by the Ministry of Finance, there are now 22,579 registered freight vehicles in the country (license plate "C"). Currently, ASETCA does not have updated statistics on its members and their vehicles, freight volumes, operating costs and other parameters to adequately describe the industry. Nevertheless, it has updated data

on approximately 17% of its members' international fleet, provided for this study. This partial list of 1024 cabs, trailers and trucks from part of its members, was classified by year to obtain the average age of the sample.

The results are indicated in Figure 7.10.1. The average age of cabs is 13 years and of trailer, more than 30 years. The makes of the are also presented in figure 7.10.2. Most of the cabins are International, a large number are Whites and Freightliners. These makes constitute 66% of the vehicles included in the sample.

Most of the trailers are Fruehauf (33%) followed by Trailmobile, Strick and National. These four makes constitute 67% of all trailers. Most of the trucks in the sample are Mercedez Benz. Two hours of observation of the border crossing between El Salvador and Guatemala (San Cristobal) indicated that most cabs were very old Freightliners and Whites.

TABLE 7.10.1

International Load Transpjort Vehicles per Type and Year Affiliated to ASETCA

BULSTERS			LORRIES			TRUCKS					
YEAR	AGE	NUMBER	YEAR	AGE	NUMBER	YEAR	AGE	NUMBER	YEAR	AGE	NUMBER
1960	34	2	1966	28	2	1940	54	1	1986	8	1
1964	30	2	1968	26	2	1955	39	1	1987	7	4
1965	29	4	1970	24	1	1958	36	1	1988	6	3
1966	28	2	1971	23	2	1959	35	1	1991	3	1
1967	27	2	1973	21	1	1960	34	1	1992	2	3
1968	26	11	1974	20	1	1962	32	2	1993	1	6
1969	25	6	1976	18	1	1963	31	3	1994	0	7
1970	24	11	1977	17	2	1964	30	4	TOTAL		373
1971	23	6	1978	16	2	1965	29	1			
1972	22	13	1979	15	7	1966	28	11			
1973	21	11	1980	14	4	1967	27	10			
1974	20	20	1981	13	8	1968	26	7			
1975	19	14	1982	12	2	1969	25	12			
1976	18	18	1983	11	7	1970	24	22			
1977	17	38	1984	10	15	1971	23	7			
1978	16	36	1985	9	4	1972	22	12			
1979	15	43	1986	8	5	1973	21	14			
1980	14	34	1987	7	2	1974	20	43			
1981	13	19	1988	6	1	1975	19	8			
1982	12	25	1989	5	2	1976	18	17			
1983	11	32	TOTAL		71	1977	17	29			
1984	10	40				1978	16	37			
1985	9	48				1979	15	58			
1986	8	18				1980	14	21			
1987	7	2				1981	13	9			
1988	6	5				1982	12	10			
1989	5	4				1983	11	2			
1994	0	2				1984	10	2			
TOTAL		468				1985	9	2			

Source: ASETCA

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TABLE 7.10.2

Brand Distribution From a Sample of Equipment of International Load Transport Affiliated to ASETCA

BULSTERS	
BRAND	TOTAL
Internacional	48
White	30
Freightliner	27
Kenworth	12
Freightliner	10
Ford	9
Peterbilt	9
Mack	4
GMC	4
Kendword	3
Highway	1
Lufkin	1
Trailmobile	1
TOTAL	159

TRUCKS	
BRAND	TOTAL
Fruehauf	39
Trailmobile	16
Strick	14
Nacional	10
Budo	9
Dorsey	4
Gindy	4
Bown	3
Utility	3
Van Strick	2
Miller	1
Body	1
Theurer	1
Cone	1
Clark	1
Comet	1
Great Dane	1
Pike	1
Budo	1
Monon	1
Evans Monon	1
Frunch	1
High	1
Custom	1
TOTAL	118

LORRIES	
BRAND	TOTAL
Mercedez Benz	18
Chevrolet	2
Ford	2
Volvo	2
Isuzu	1
TOTAL	25

Source: ASETCA

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According to ASETCA's estimates, there are approximately 5,200 freight vehicles nation-wide, mostly with a capacity of 20 tons. Most of the existing fleet was bought second hand in the United States.

ASETCA's businessmen expressed the following opinions and concerns regarding the restrictions and problems they are facing:

- Formerly duties for freight vehicle imports were only 5%. For a time no duties were paid at all. Currently, transporters must pay a customs charge of 10% plus IVA anadditional 10%).

- Freight transport equipment from other Central American countries are better, more modern and with higher capacity. For example, Costa Rica and Guatemala, to a lesser degree, have very modern equipment thanks to the facilities provided by their Governments to replace the fleet.

- The freight transport sector, contrary to other sectors of the economy and types of transport, has not had credit lines to purchase equipment and build terminals.

However, ASETCA did not know of the existence of a recently created credit line of the Central Reserve Bank and Multisector Investment Bank, according to information provided by the DGTT. Its chapter IV indicates the existence of a credit line for the construction of freight terminals, as well as the purchase of new and/or used wagons, containers, trailers, trucks, pickup trucks and front cabs; as well as to purchase new or used container handling equipment. The CABEI also has a favorable credit line, which is apparently difficult to obtain due to strict requirements. Nevertheless, ASETCA assured us it is extremely difficult for a small firm to obtain access to this credit, due to the many requirements, feasibility studies and collateral required.

7.10.8 Other Industry Characteristics

According to ASETCA, other characteristics of the national freight transport industry and some ideas for its improvement, are:

- There is unfair competition with Central American shippers on backhaul cargo, and there is a lot of corruption in the crossings of international borders.

- The Government should create a National Transport Institute to manage all freight transport business, as has been done in other countries.

- With the support of other organizations, ASETCA has promoted the creation of a National School for Freight Transport Drivers which could also function as Maintenance School and Cooperative Shop. It has a project profile which it proposes to implement with government support. At this school, a Data Bank of drivers and transporters would function nation-wide.

- There is currently high speculation on local spare part prices. these prices are often much higher than when directly imported from the United States. They are trying to solve this problem through ACOSETCA.

- A nation-wide promotion campaign is needed for users to prefer their Salvadoran transporters rather than from other countries, although they admit that as the transport market is so competitive, key users generally decide based on the lowerst freight.

- The transporters' strongest competition is from representatives of some naval carriers, which, according to ASETCA, brings about a loss of freight for about 200 to 300 containers that monthly depart from the ports. 60% of this transport is carried out by naval carrier representatives, except for Sea Land, which uses its own transporter, not affiliated to ASETCA.

- In El Salvador, vehicles are not insured, for any coverage, due to the prevailing high cost of premiums The cost of the insurance is so high that with the premium one can buy another vehicle in one or two years. In comparison, transporters from El Salvador, when entering Costa Rica, have to be insured by the National Insurance institute of the Costa Rican Government, paying a very low premium that covers them against all risks while they are in Costa Rican territory.

- ASETCA considers establishing to a container port in Cutuco inadequate since most of the country's industry is in San Salvador.

- The lack of domestic return cargo is very serious. It is not as serious for international cargo, but the Salvadoran transporters insist there is unfair competition from other Central American transporters for this freight. There are no cargo terminals, nor plans to implementing them.

- ASETCA considers that the products with the greates freight volumes are: cement, fertilizer, maquila products, coffee exports, iron, and general cargo (mainly paper. PVC, plastics, resin, copper, aluminum, steel, and processed foods).

- Volume decline during the war years, substantially affected the business profitability. In the past two years, after the conflict was over, there has been an increase in volumes.

7.10.9 Current and Future Freight Volumes

From surveys carried out with main freight transporters and users, some estimates of the key volumes currently moved by truck were obtained. The traffic analysis in chapter 2 provides detailed estimates of freight volumes moved by truck and by cargo type of product. For this reason, this information was not duplicated here.

7.10.10 Service Level

To obtain volume data and learn user opinion a service quality survey was carried out with key users. The survey form found in Annex 7.10.1 was sent to key freight users. Unfortunately, the answers obtained were too few to constitute a representative sample. However, the following opinions were expressed:

- All interviewed users consider that the freight transport market is competitive, with the opportunity to choose transporters and to negotiate rates.
- The service quality provided by the transporters is classified as average and good, regarding speed, reliability, punctuality and security. Frequent trucks accidents were mentioned as a very common problem.
- Users lack of an organization that would allow them to permanent follow-up on their problems and helps them to develop alternative solutions.
- Transshipment or handling at ports and railroads is about ¢50/ton, which is considered adequate.
- Reported border crossing times were betwen 2 and 6 hours.
- Among the problems that users consider serious are robbery, unsafe transport, bad conditions of the transport equipment, low driver reliability and poor product management.

7.10.11 The Economics of the Freight Transport Sector

a. Operating Costs

No available information on the operating costs of freight transport enterprises was found. ASETCA does not have this information and the several interviews carried out on with entrepreneurs led to the conclusion that transporters do not process this type of information; thus, they do not have an analysis of their administrative, operating and maintenance costs.

Nevertheless, as a part of this Study, the highway specialist has processed the vehicle operating costs model, VOC, of the HDM III model. This information is provided in Chapter 3 of this Study.

b. Rates and Rate Setting Mechanisms

As stated, rates are set individually by shippers based on the volume and weight transported in a competitive market, with excess supply. Except for existing rate regulations for fuel and cement, there are no official rates, nor are rates specified by ASETCA. However, in interviews with shippers, it was found that one small-scale entrepreneur had developed rates for international freight, which he applies and is trying to have ASETCA apply nationally. According to this service, rates per ton-kilometer were calculated for two cases, from San Salvador to Guatemala and Tegucigalpa, presented in figure 7.10.3. These freight rates ca be reduced as long as weights increase.

TABLE 7.10.3

Consolidated International Freight Prices,According to Weight from San Salvador

WEIGHT TO TRANSPORT(KG.)	FREIGHT IN ¢ TONS-KILOMETERS TO	
	GUATEMALA	TEGUCIGALPA
Maritime Freight	4.00	4.50
1350- 2270	1.23	1.12
2271 - 4532	1.09	1.02
4536 - 6800	0.94	0.89
6801 - 9070	0.82	0.84
9071 - 11340	0.78	0.79
11341 - 13605	0.76	0.76
13606 15875	0.74	0.73
15876 - 18145	0.72	0.72
18146 Kgs.	0.70	0.70

Source: Raúl Alfaro

7.10. 12 Conclusions on the Freight Transport Industry

There is limited available information on the freight transport industry and its characteristics. The scope of this study does not allow a detailed analysis of its main characteristics. However, based on the available information, the following preliminary conclusions were obtained, which should be checked in further and more detailed studies by VMT:

- The sector works without too much government regulation and its operations are totally managed by the private sector transporters. Most of them belo..g to in a national association.

- This association is not yet well organized and does not have much influence in the design of policies and programs for sector improvement. Its key contribution has been to reduce prices of some inputs, through their cooperative.

- Until the recent introduction of the Multisector Investment Bank credit line, there were no special incentives to replace the fleet and /or purchase specialized cargo handling equipment. Requirements and procedures for all existing credit lines make it very difficult for small-scale and new businesses to obtain financing for new or used equipment.

- There are no institutional, legal or regulatory constraints to future sector growth and development other than the lack of organization in the transport association, its lack of ability to consolidate freights and obtain return freights and international competition, which, according to ASETCA, is unfair since entrepreneurs from other countries have greater support from their governments. Weight control per axle is not considered by transport entrepreneurs as a constraint to their operations.

- According to entrepreneurs, there are management problems in freight demand, specially for domestic and, to a lesser degree, for the international market, often requiring empty returns. On the other hand, there is no industry-wide freight consolidation mechanism. Transport entrepreneurs do consolidate their own freight.

- There is a lack of a national systems of special stops for rest, help and supplies on the country's main highways.

7.10.13 Recommendations

Based upon these conclusions, the following recommendations are suggested to strengthen the freight transport sector:

a. Strengthening Sector Organization

The DGC should preferably keep its functions of weight per axle and vehicle dimension regulations in its freight control office, strengthened with sufficient professional, physical and financial resources to improve the existing control and obtain basic statistics for better sector planning.

Moreover, within the new Engineering Directirate (DI), suggested for the MOP, complementary functions should b: re-defined to strengthen sector organization. Within these functions, the most important are:

- Develop global policies for the modernization of the fleet and operations, such as the implementation of adequate vehicle policy, incentives to build freight coordination and consolidation centers, etc.

- Modernize and develop effective management to register and control operating conditions, in coordination with the Ministry of Finance.

- Support transporters and users to strengthen or implement new private organizations that can contribute to the solution of the most urgent problems, such as security, input supply, operating cost and efficiency, through freight consolidation and coordination policies.

- Intensification of surveillance on highways and private sector promotion of facilities for transporters on highways.

b. Freight Control. Planning Statistics

One of the most serious restrictions found from this study the beginning of was the lack of processed data for sector planning, such as basic statistics on firms, vehicles and their characteristics, operating costs, volumes, freight and passenger origin-destination data, etc. DGC' s weight control provides very good origin-destination information of freight by type of cargo and vehicle, which is coded but not processed. Thus, it is recommended:

- As soon as possible, the DGC or the proposed DI should process all new information obtained from weight control tables.

- At least a sample of 10% of the already coded tables of the last five years should be processed for the most important stations, to detect trends in freight origin-destination patterns and other characteristics, such as cargo factors (weight/capacity), number of returning trips, etc.

- At the same time, the proposed DI absorbs the other cargo functions, it should make a national census of existing cargo firms, vehicles and characteristics, and operating costs.

- A set of external zones should be established to analyze traffic and forms should be changed to record the final destination of trips outside the country.

- Although supply and demand appears, to be functioning well in El Salvador, a study should begin as soon as possible of the cargo transport industry including a detailed review of operating costs and rates.

- Traffic analysis and projections should be prepared by the proposed Engineering Director which would be the office in charge of all Traffic Engineering functions.

c. Technical Assistance for Transporters and Users

To improve administration, accounting and service, the VMT should design, or engage the private sector to carry out a series of courses and seminars for both organized and individual entrepreneurs, addressing the following themes:

- Advantages to the country, transporters and users of the cargo control program, ways in which it should be improved and complied with.

- Ways to improve the administration, accounting and operations of transporters. Cargo coordination and consolidation Systems.

- Promotion and marketing, service to client.

The VMT should also promote and support the organization of cargo transport users, as exist in other countries, which well managed and advised, can generate important benefits to the key users of national and international transport, by technical advertising campaigns, and studies to reduce operating costs, and avoid national and international unfair competition.

Simultaneously, ASETCA should work to strengthen its own association, as a well-organized and strengthened private sector can carry out greater and more ambitious improvement projects, such as the construction of cargo terminals and/or consolidation centers, driver assistance and highway support projects.

d. Improved Safety and Security

To reduce existing accidents with cargo vehicles, the new DGTAU should establish more rigorous criteria to give out driving licenses for ordinary trucks and cabs with trailers. Moreover, systems to record accidents and their causes should be established and a unit should be constituted to process and continously analyze the data to develop specific regulations and traffic security policies.

To improve security for transporters and reduce vehicle and cargo theft on national highways, improve security by assigning more agents to patrol in modern vehicles with radio-telephones. Likewise, ASETCA should promote and facilitate radio equipment purchases by transporters which can be used to directly communicate with patrol officers in case of emergency.

ANNEX 7.1.1

ANSWERS TO GOES COMMENTS TO DRAFT REPORT

Los Consultores recibieron una comunicación del Viceministerio de Transporte con fecha 13 de febrero de 1995 conteniendo siete observaciones al Borrador de este Informe sobre la Industria del Transporte Interurbano. A continuación las observaciones hechas y respuestas a ellas.

1. **En la página 7-10 (español) primer párrafo, se establece que la información plasmada fue proporcionada por ATP, y no fue así, si no que lo hizo DGTT.**

Al final de la página 7-10 (español) se mencionaba que según ATP, existen algunas rutas de mircrobuses. Esta información originalmente fue dada por la ATP, aunque no detallaron sus características porque no las sabían. La información oficial que es la del Cuadro 7-2-4 fue dada por la DGTT. El texto ha sido ligeramente modificado.

2. **En cuanto al número de propietarios se establece que existe una gran cantidad de propietarios individuales y pocas Cooperativas, pero no plasman el análisis si esto es ventajoso o desventajoso para la industria de Transporte en el marco de la modernización del Estado.**

En referencia a este comentario, es cierto que no comentamos específicamente si la estructura de Propiedad que existe hoy en día en El Salvador, con una inmensa mayoría de propietarios individuales y muy pocas cooperativas es ventajosa o desventajosa para el Estado en el marco de la Modernización del mismo. Sin embargo, en la página 7-4, antes del Cuadro 7.2.1 se comenta que "esta atomización de la industria no es saludable en general" y en la página 7-7 se menciona como resultado de una reunión con los directivos de AEAS, la forma como la industria del transporte público ha evolucionado en los últimos años. Se menciona que hasta el año 1,971 existían empresas privadas de transporte que estaban bien organizadas y tenían mucho poder. Posteriormente el mismo Gobierno, adoptó una política de incentivar y promover la formación de cooperativas y para el año 1,976, la mayoría, sino todas las empresas existentes habían sido disueltas y se habían formado las cooperativas manejadas por los propios empleados. Parece que en dicho cambio el Gobierno proporcionó muchos incentivos, financiamiento y facilidades, para que formaran las cooperativas. Sin embargo, de 1,976 a la fecha casi todas las cooperativas de transporte interurbano de pasajeros han sido disueltas, debido a su deficiente manejo, prácticas deficientes de administración y problemas internos de los propios operadores - propietarios (Desde luego es de asumir que también existió corrupción..)

De tal forma, que aunque la idea del cooperativismo del transporte público es una idea atractiva y posee muchas ventajas, y de hecho se ha desarrollado muy bien en muchos otros países (en un 76% de los países latinoamericanos estudiados por la CEPAL en 1,991, se encontró que el servicio de transporte urbano era prestado, al

menos en parte, por cooperativas..), con poca injerencia regulatoria del Estado, pero siempre con incentivos del Gobierno, casos de Israel, Colombia, y Venezuela (Barquisimeto), el caso es que la experiencia de El Salvador, evidentemente ha sido muy negativa, como lo reconocen los propios transportistas.

Dentro de las principales ventajas que tiene la forma de cooperativismo están las economías de escala en la compra de los autobuses, sus seguros, los repuestos, facilidades de estacionamiento, lavado y servicio a los autobuses, gastos de administración, etc.. Sin embargo, el cooperativismo debe estar desarrollado a nivel del país y debe estar sustentado en una base legal específica de las cooperativas y del mismo sector del transporte, de tal forma que los problemas de supervisión del uso de los vehículos, y repartición de costos y utilidades, puedan ser minimizados y los sistemas de administración puedan ser optimizados. Sin conocer las historia en detalle de porqué las cooperativas de transporte público en general han fracasado en El Salvador, es de presumir que se debió a prácticas antitécnicas de administración, falta de gerencia y luchas internas por el control de las organizaciones por parte de los propietarios mas fuertes, todo ésto mezclado con un fuerte ingrediente de partidismo político, ya que el orígen de las mismas fué una decisión eminentemente política del Gobierno de esa epoca.

Esto desde luego, no significa que la idea del cooperativismo, o alternativamente, de las asociaciones de empresarios, no puedan ser nuevamente analizadas y no deban ser exploradas nuevamente como formas de salir de la ineficiencia del sector, surgiendo esta vez desde un enunciado y una motivación técnica, no política. Es de suponer que a muchos propietarios individuales pequeños les llamaría mucho la atención la formación de cooperativas, o asociaciones, siguiendo el ejemplo de otros países en donde estas han sido exitosas, en especial si existen reglas claras del juego cooperativista, o de asociación (base jurídica adecuada, reglamentos de asociación y repartición de costos y utilidades). incentivos gubernamentales atractivos y una asistencia técnica permanente, o al memos durante los dos primeros años por parte de la DGTT. Para el Gobierno, a su vez, la formación de estas cooperativas o asociaciones aglutinadoras del excesivo número de propietarios individuals existentes hoy en día sería una gran ventaja por su mayor facilidad de control e influencia y por las supuestas ventajas que estas deberían traer en la reducción de costos y las mejoras al servicio.

La asociación de propietarios de autobuses sirviendo una o más rutas, o líneas autorizadas, como solución menos formal que la figura legal de cooperativa, y por tanto más facil de adoptar, puede ser muy exitosa, dependiendo del grado de integración al interior de la misma. Si cada propieratio goza de bastante independiencia, el control ejercido por la asociación disminuye, y esto genera una serie de problemas, coma las rivalidades entre vehículos que sirven un mismo

recorrido, la adquisición individual, sin las correspondientes rebajas por cantidad, de autobuses muy diversos en cuanto a forma, dimensiones y calidad, etc..

Por otra parte, dichas asociaciones presentan múltiples ventajas: estimulan las operaciones del pequeño empresario, son muy dinámicas, garantizan los servicios del transporte donde exista demanda, y son eficases en lo que se refiere a las relaciones personal vehículo, y kilómetro recorrido por autobús. Sin embargo, si sus miembros se hallan escasamente integrados entre sí, cada propietario cuenta con excesiva autonomía, lo que se traduce en:

a) Servicios que siguen en funcionamiento aún cuando la demanda de ellos sea escasa, por la especulación de los propietarios.

b) Costos de inversión por autobús superiores a los estrictamente necesarios.

c) Costos de matenimiento por autobús más altos.

d) Dificultades en las relaciones y negociaciones con autoridades del sector transporte.

En Buenos Aires, dichos problemas se han resuelto en gran medida en el sector urbano, pero igualmente es aplicable al sector interurbano, sin necesidad de una reorganización total del sector de transporte por autobuses La solución en Buenos Aires consistió, básicamente, en considerar efectivamente a cada vehículo como una acción de una empresa, es dicir de la asociación. La asociación administra coordinadamente la flota de vehículos en representación de sus miembros, como si fueran parte de una sola entidad, pero en muchos cada uno de los socios, vigila el trato particular otorgado a su propio vehículo, asegurándose por ejemplo, de que reciba una cuota satisfactoria de operación en las horas pico, que no sea retirado por exigencias de mantenimiento durante períodos demasiado prolongados, y que haya intervalos razonables entre su propio autobús y el que vá adelante.

Ninguna solución de transporte puede transferirse tal cual de un país a otro, y de todas formas no es aconsejable recomendar una solución para el problema de la atomización de la propiedad del transporte público de pasajeros en El Salvador, sin estudiar en detalle las características propias de cada contexto. Sin embargo, vale la pena analizar en detalle la posiblidad de establecer cooperativas con reglas claras del juego, o asociaciones como las descritas en las cuales, se mezclan las ventajas de la agrupación, con las de la supervisión y el interés personal de cada propietario individual.

Recomendamos que el Ministerio solicite una asistencia técnica al BID o al BIRF para conseguir un experto que vaya a sentar las bases para el fortalecimiento del cooperativismo o de las Asociaciones del Transporte Público.

3. **Establecer cual fue la estructura de costos utilizadas para los cuadros de análisis de Costos y anexarla al Estudio.**

Los análisis de costo de operación de vehículos (VOC) han sido efectuados en el Capítulo 3 (Estudios Viales) de este estudio. Se está preparando la información para conformar la base de datos que se entregará a la conclusión del estudio.

4. **Incorporar al estudio los mapas donde se han graficado todas las rutas interurbanas.**

Copias de estos mapas ya han sido entregados al VMT. Los originales van a ser entregados a la misma dependencia al terminar el estudio.

5. **Plasmar en el estudio que la nueva base con respecto al transporte interurbano de pasajeros se proporcionará a la DGTT complementada**

Los archivos serán entregados a la conclusión del estudio.

6. **Plasmar el análisis con respecto a la oferta y demanda del servicio que ofrecen los microbuses, en relación al servicio de autobuses (oferta y demanda), determinar si es favorable o desfavorable tomando en cuenta factores socio, políticos y económicos de la sociedad salvadoreña.**

Los datos oficiales obtenidos de la DGTT con respecto a las rutas interurbanas de microbuses, solamente nos fueron entregados al final del estudio. Dichos datos indican que existen diez rutas autorizadas, de las cuales por lo menos 5 son rutas sub-urbanas. De hecho las más importantes por el número de vehículos asignados son rutas sub-urbanas que no nos correspondía estudiar. Las restantes son rutas que por el número de vehículos no tienen ninguna importancia en el contexto del servicio nacional de transporte interurbano de pasajeros, Por otra parte, los alcances del estudio no permitían hacer un estudio detallado del balance oferta - demanda.

El incidente que se presentó en San Miguel cuando estábamos allá, fué indicativo de que existen varias rutas de microbuses que no cuentan con permiso oficial, pero que sin embargo, estaban operando haciendole la competencia a los autobuses. Por esta razón en la seción 7.5.7 (g) se hizo mención, de que "El servicio que prestan algunas rutas interurbanas de microbuses, las cuales aparentemente no tienen

permisos oficiales, debe analizarze en forma técnica por medio de un estudio de oferta y demanda de todos los servicios en las rutas sobre las cuales operan. Con base en los resultados de dicho estudio, la DGTT debe establecer la conveniencia de otorgar nuevos permisos, o negarlos". Mal podríamos ponernos a determinar si este servicio es favorable o desfavorable y establecer políticas, tomando en cuenta factores socio, políticos y económicos de la sociedad salvadoreña, sin información suficiente sobre las características de dichas rutas que ni siquiera son oficiales. Cabe añadir que los alcances de este estudio no daban para hacer este tipo de análisis.

Sin embargo, en la misma sección, aún sin información, dimos recomendaciones preliminares sobre el tipo de servicio que deben proveer los microbuses, posiblemente como rutas alimentadoras en tramos de menor demanda a nivel nacional. No se recomienda que sean introducidos extensivamente en forma competitiva con los autobuses para tramos largos; solamente en tramos cortos y con vehículos adecuados, es decir realmente "Minibuses" de 16 a 28 pasajeros, podrían ser autorizados en rutas con escaso servicio de autobuses. Pero todo este debe ser analizado con datos completos de la oferta y de la demanda a nivel nacional y de cada ruta, todo lo cual requiere de investigaciones de campo y de encuestas de origen - destino y/o de productividad ruta por ruta.

7. **Establecer si la oferta del servicio de autobuses actuales es favorable a la demanda, es decir si hay simetría en la oferta y la demanda del mismo.**

Sobre este tema existen varias referencias a lo largo del estudio. Basta mencionar todo lo que se dice en cuanto a la composición, distribución y estructura de las rutas, las frecuencias, los intervalos, las distancias, las velocidades, el nivel de servicio, las encuestas a los usuarios y otros varios indicadores estadísticos obtenidos de la información suministrada sobre la oferta de rutas. No hay información completa e independiente de demanda ruta por ruta, excepto la estimada en base las frecuencias de las rutas reportadas por la DGTT, y las cuales no son muy confiables; sin embargo, dentro de los alcances del estudio no era posible, por falta de tiempo y de recursos, el hacer encuentas e investigaciones de campo a nivel nacional para obtener estimaciones de demanda ruta por ruta.

Sin embargo, en el informe se comenta en la sección de "Frecuencias y Tiempo de Espera, sección 7.5" sobre este indicativo que refleja el balance oferta-demanda, sugiriéndose que parece existir un buen equilibrio entre oferta y demanda, tanto a lo largo del día como en la distribución de la cantidad de servicio a nivel nacional. En la opinión personal del experto, pero que no tiene fundamentación cuantitativa, excepto en lo conversado con algunos conductores, es que existe un exceso de servicio en ciertas rutas troncales, lo que se traduce en que muchos operadores

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tienen los vehículos parados la mayor parte del día y hacen escasamente uno o dos viajes al día, por el exceso de unidades en la ruta; como resultado el negocio no les es rentable, y no se pueden salir del negocio, porque la DGTT no les reponde sus solicitudes de re_ignación o abandono del servicio. Pueden existir otras rutas con déficit de servicio, pero no lo podríamos saber sin investigaciones de campo más detalladas.

ANNEX 7.5.1

SURVEY FORMS USED FOR BUS RIDERS

ENCUESTA A LOS USUARIOS DEL TRANSPORTE PUBLICO

TERMINAL:_____ FECHA:_____

1 Orígen y destino del viaje: _____

Propósito del viaje: _____

☐ Negocios o Trabajo ☐ Familiar ☐ Placer ☐ Diligencias Personales u Otros

2 Cómo cataloga Usted:

Comodidad	Rapidez del Viaje	Tarifa ¢: _____	Atención
☐ Excelente	☐ Muy Bien	☐ Alta	☐ Muy Bien
☐ Buena	☐ Regular	☐ Bien	☐ Regular
☐ Regular	☐ Baja Velocidad	☐ Baja	☐ Mala
☐ Mala	☐ Exceso de Paradas	☐ Alterada	

3 Cúantas veces hace Usted éste viaje al mes? _____

4 Prefiere Usted viajar en: ☐ Autobus ☐ Microbus ☐ Taxí

5 Pagaría Usted una tarifa mayor para obtener:

☐ Más Rapidez ☐ Más Comodidad ☐ Mejor Atención

6 Los autobuses interurbanos en que usted viaja se han varado o accidentado?

☐ Una vez ☐ 2 a 5 veces ☐ Más de 5 veces ☐ Ninguna

7 Los conductores manejan:

☐ Bien ☐ Regular ☐ Imprudentemente

ANNEX 7.5.2

RESULTS OF SURVEY OF IMTERURBAN BUS RIDES

RESULTADOS DE ENCUESTAS

A LOS USUARIOS

TRANSPORTE INTERURBANO

NOVIEMBRE 1994

CONCLUSIONES

INTRODUCCION

Con el fin de obtener una opinión independiente de la DGTT y de los transportistas, sobre la calidad del servicio, las tarifas y otros aspectos, se diseño una encuesta corta y rapida a una muestra pequeña de los usuarios del servicio de transporte interurbano.

La encuesta fue realizada en el periodo de Octubre 17 a Octubre 30 de 1,994 en los terminales de Occidente, Oriente, y el Sur en San Salvador, y en los terminales de San Miguel y Usulutan en el oriente del pais.

La encuesta proveyó información importante e interesante para evaluar la calidad del servicio y otros parámetros, como se indica mas adelante.

RESULTADOS DE LA ENCUESTA

PORCENTAJES SOBRE LA ENCUESTA A USUARIOS

Propósito del viaje

Un 39.53% indica que las personas viajan por motivos de trabajo o negocio, y un porcentaje significativo indica que lo nace por motivos familiares 37.18%

Una cantidad en porcentaje muy reducida 4.71% indica que las personas viajan por placer o turismo.

Tipificación del servicio

En cuanto a la comodidad que se da y se observa en las unidades un 49.88% respondió que es regular, y solo un 35.88% dijo ser buena.

El exceso de paradas con un 37.18% suele ser típico en los diferentes servicios a nivel nacional y un 31.29% indica ser regular.

El 52.94% de la muestra indica que el precio de la tarifa esta bien, un 23.06% resulto de estar alterada y una tasa reducida manifestó que tal tarifa es baja 2.59%

La atención obtuvo un 41.88% como resultado regular, y un 31.06% como muy bien.

Frecuencia de viaje de los usuarios

Un 32.94% dice que viaja de 1 a 10 días al mes, el 30.82% lo hace de 20 a 30 veces

Preferencia por el tipo de transporte

El 69.41% opta por viajar en autobús, el 25.65% por microbus y solo el 4.94% por taxi.

Disponibilidad del usuario a pagar una tarifa mayor

Una buena parte 77.88% esta dispuesto a pagar un precio mayor para obtener en primer lugar mas comodidad, en segundo lugar lo haría por mas rapidez y en tercer lugar por una mejor atención.

Frecuencia de accidentes o desperfectos mecánicos

Un 38.35% manifiesta que ninguna vez a presenciado este tipo de accidente mientras se hace uso de la unidad, y el resto cree haberlo presenciado de una a mas veces.

Forma en que conducen los motoristas

El 40.94% respondió que este servicio es regular, un 29.88% lo hace bien y un 29.18% lo hace imprudentemente.

ENCUESTA AL USUARIO DE TRANSPORTE PUBLICO EN TODAS LAS TERMINALES DEL PAIS

	T.OC	%	T.OR	%	T.SUR	%	SM	%	US	%	PAIS	%
Proposito del viaje												
Negocios o trabajo	57	37.50%	80	43.48%	11	28.21%	9	33.33%	11	47.83%	168	39.53%
Familiar	52	34.21%	71	38.59%	19	48.72%	9	33.33%	7	30.43%	158	37.18%
Placer	12	7.89%	4	2.17%	2	5.13%	1	3.70%	1	4.35%	20	4.71%
Diligencias personales u otros	31	20.39%	29	15.76%	7	17.95%	8	29.63%	4	17.39%	79	18.59%
	152	100.00%	184	100.00%	39	100.00%	27	100.00%	23	100.00%	425	100.00%
Como cataloga usted												
Comodidad												
Excelente	11	7.24%	18	9.78%	0	0.00%	1	3.70%	0	0.00%	30	7.06%
Buena	46	30.26%	47	25.54%	13	33.33%	1	3.70%	3	13.04%	110	25.88%
Regular	75	49.34%	89	48.37%	23	58.97%	12	44.44%	13	56.52%	212	49.88%
Mala	20	13.16%	30	16.30%	3	7.69%	13	48.15%	7	30.43%	73	17.18%
	152	100.00%	184	100.00%	39	100.00%	27	100.00%	23	100.00%	425	100.00%
Rapidez del viaje												
Muy bien	49	32.24%	48	26.09%	1	2.56%	0	0.00%	0	0.00%	98	23.06%
Regular	46	30.26%	68	36.96%	10	25.64%	7	25.93%	2	8.70%	133	31.29%
Baja velocidad	12	7.89%	11	5.98%	1	2.56%	7	25.93%	5	21.74%	36	8.47%
Exceso de paradas	45	29.61%	57	30.98%	27	69.23%	13	48.15%	16	69.57%	158	37.18%
	152	100.00%	184	100.00%	39	100.00%	27	100.00%	23	100.00%	425	100.00%
Tarifa ¢												
Alta	29	19.08%	46	25.00%	9	23.08%	4	14.81%	3	13.04%	91	21.41%
Bien	89	58.55%	105	57.07%	8	20.51%	8	29.63%	15	65.22%	225	52.94%
Baja	5	3.29%	5	2.72%	0	0.00%	1	3.70%	0	0.00%	11	2.59%
Alterada	29	19.08%	28	15.22%	22	56.41%	14	51.85%	5	21.74%	98	23.06%
	152	100.00%	184	100.00%	39	100.00%	27	100.00%	23	100.00%	425	100.00%
Atencion												
Muy bien	60	39.47%	68	36.96%	3	7.69%	1	3.70%	0	0.00%	132	31.06%
Regular	66	43.42%	73	39.67%	22	56.41%	10	37.04%	7	30.43%	178	41.88%
Mala	26	17.11%	43	23.37%	14	35.90%	16	59.26%	16	69.57%	115	27.06%
	152	100.00%	184	100.00%	39	100.00%	27	100.00%	23	100.00%	425	100.00%
Cuantas veces hace Usted este viaje al mes ?												
1 - 10 veces	101	66.45%	98	53.26%	13	33.33%	6	22.22%	7	30.43%	225	52.94%

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ENCUESTA AL USUARIO DE TRANSPORTE PUBLICO EN TODAS LAS TERMINALES DEL PAIS

	T.OC	%	T.OR	%	T.SUR	%	SM	%	US	%	PAIS	
11 - 20 veces	17	11.18%	22	11.96%	14	35.90%	10	37.04%	6	26.09%	69	1
20 - 30 veces	34	22.37%	64	34.78%	12	30.77%	11	40.74%	10	43.48%	131	3
	152	100.00%	184	100.00%	39	100.00%	27	100.00%	23	100.00%	425	10
Prefiere usted viajar en:												
Autobus	112	73.68%	146	79.35%	16	41.03%	13	48.15%	8	34.78%	295	6
Microbus	35	23.03%	32	17.39%	18	46.15%	11	40.74%	13	56.52%	109	2
Taxi	5	3.29%	6	3.26%	5	12.82%	3	11.11%	2	8.70%	21	
	152	100.00%	184	100.00%	39	100.00%	27	100.00%	23	100.00%	425	10
Pagaria usted una tarifa mayor para obtener												
Si	119	78.29%	134	72.83%	32	82.05%	26	96.30%	20	86.96%	331	7
No	33	21.71%	50	27.17%	7	17.95%	1	3.70%	3	13.04%	94	2
	152	100.00%	184	100.00%	39	100.00%	27	100.00%	23	100.00%	425	10
Mas rapidez	36	30.25%	32	23.88%	14	43.75%	14	53.85%	12	60.00%	108	3
Mas comodidad	61	51.26%	64	47.76%	8	25.00%	5	19.23%	3	15.00%	141	4
Mejor atencion	22	18.49%	38	28.36%	10	31.25%	7	26.92%	5	25.00%	82	2
	119	100.00%	134	100.00%	32	100.00%	26	100.00%	20	100.00%	331	100
Los autobuses interurbanos en que usted a viajado se han varado o accidentado?												
Una vez	18	11.84%	21	11.41%	5	12.82%	4	14.81%	2	8.70%	50	11
2 a 5 veces	28	18.42%	62	33.70%	14	35.90%	9	33.33%	7	30.43%	120	28
Mas de 5 veces	34	22.37%	33	17.93%	10	25.64%	6	22.22%	9	39.13%	92	21
Ninguna	72	47.37%	68	36.96%	10	25.64%	8	29.63%	5	21.74%	163	38
	152	100.00%	184	100.00%	39	100.00%	27	100.00%	23	100.00%	425	100
Los conductores manejan:												
Bien	42	27.63%	74	40.22%	5	12.82%	3	11.11%	3	13.04%	127	29
Regular	62	40.79%	73	39.67%	24	61.54%	9	33.33%	6	26.09%	174	40
Imprudentemente	48	31.58%	37	20.11%	10	25.64%	15	55.56%	14	60.87%	124	29
	152	100.00%	184	100.00%	39	100.00%	27	100.00%	23	100.00%	425	100

T.OC = TERMINAL DE OCCIDENTE
T.OR = TERMINAL DE ORIENTE
T.SUR = TERMINAL DEL SUR
SM = TERMINAL DE SAN MIGUEL
US = TERMINAL DE USULUTAN

A. TERMINAL DE OCCIDENTE

Propósito del viaje

El 37.5% manifestó que viaja por negocios o trabajo, y el 34.21% lo hacen con objetivos familiares, solamente un porcentaje muy reducido 7.89%, indica que viaja por placer.

Tipificación del servicio

Con respecto a la comodidad en los autobuses un porcentaje bastante pequeño 7.24% respondió que es excelente. En cuanto a la rapidez, un 62.5% considera que es bastante bueno y que no hay mayor obstáculo en el transcurso del viaje. Solo un 29.61% indico que había un exceso de paradas, esto muchas veces se puede dar en los servicios de transporte que no es directo, y es conocido por el pasajero antes de iniciar el viaje.

El 58.55% de la muestra manifestó que el precio del pasaje es adecuado, solamente un porcentaje del 19.08% refleja que la tarifa es alta.

En cuanto a la atención se puede decir que anda bastante bien, ya que el 82.89% contestó que es buena o regular.

Frecuencia de viaje de los usuarios

El mayor porcentaje, 66.45% respondió que lo hacen de 1 a 10 veces al mes, en segundo termino, el 22.37% viajan de 20 a 30 veces al mes.

Preferencia por el tipo de transporte

El 78.29% prefieren el autobús, y el 33.03% preferirían hacerlo por microbus; solamente un 3.29% respondió que lo haría por taxi.

Disponibilidad del usuario a pagar una tarifa mayor

Un 78.29% contesto que si, lo harían para obtener en primer lugar mas que todo comodidad, en segundo lugar pagaría tal precio por mas rapidez, y solo un porcentaje bastante reducido acepta un incremento en la tarifa por mayor atención.

Frecuencia de accidentes o desperfectos mecánicos

El 40.79% respondieron que han experimentado mas de dos veces este tipo de situaciones, pero también un 47.37% de las personas nunca se han visto involucradas en un accidente o desperfecto mecánicos de la unidad.

Forma en que conducen los motoristas

El 40.79% manifestó que lo hacen "regular", solo un 27.63% contesto que lo hacían bien, y un 31.58% expresó que son imprudentes.

ENCUESTA AL USUARIO DE TRANSPORTE PUBLICO TERMINAL DE OCCIDENTE

	SS/SA	SS/AH	SS/LL	SS/SO	TOTAL	%
Proposito del viaje						
Negocios o trabajo	15	20	9	13	57	37.50%
Familiar	19	10	5	18	52	34.21%
Placer	3	1	2	6	12	7.89%
Diligencias personales u otros	13	3	6	9	31	20.39%
	50	34	22	46	152	100.00%
Como cataloga usted						
Comodidad						
Excelente	5	2	2	2	11	7.24%
Buena	13	11	8	14	46	30.26%
Regular	26	18	8	23	75	49.34%
Mala	6	3	4	7	20	13.16%
	50	34	22	46	152	100.00%
Rapidez del viaje						
Muy bien	19	12	7	11	49	32.24%
Regular	16	10	5	15	46	30.26%
Baja velocidad	4	4	0	4	12	7.89%
Exceso de paradas	11	8	10	16	45	29.61%
	50	34	22	46	152	100.00%
Tarifa ¢						
Alta	14	4	1	10	29	19.08%
Bien	23	25	16	25	89	58.55%
Baja	1	2	0	2	5	3.29%
Alterada	12	3	5	9	29	19.08%
	50	34	22	46	152	100.00%
Atencion						
Muy bien	21	15	10	14	60	39.47%
Regular	22	11	9	24	66	43.42%
Mala	7	8	3	8	26	17.11%
	50	34	22	46	152	100.00%
Cuantas veces hace Usted este viaje al mes ?						
1 - 10 veces	32	23	12	34	101	66.45%

ENCUESTA AL USUARIO DE TRANSPORTE PUBLICO TERMINAL DE OCCIDENTE

	SS/SA	SS/AH	SS/LL	SS/SO	TOTAL	
11 - 20 veces	7	4	4	2	17	11.
20 - 30 veces	11	7	6	10	34	22.
	50	34	22	46	152	100.
Prefiere usted viajar en:						
Autobus	39	18	18	37	112	73.
Microbus	8	16	4	7	35	23.
Taxi	3	0	0	2	5	3.
	50	34	22	46	152	100.
Pagaria usted una tarifa mayor para obtener						
Si	39	27	17	36	119	78.
No	11	7	5	10	33	21.
	50	34	22	46	152	100.
Mas rapidez	9	9	4	14	36	30.
Mas comodidad	23	11	11	16	61	51.
Mejor atencion	7	7	2	6	22	18.
	39	27	17	36	119	100.
Los autobuses interurbanos en que usted a viajado se han varado o accidentado?						
Una vez	6	2	3	7	18	11.
2 a 5 veces	4	8	5	11	28	18.
Mas de 5 veces	12	10	4	8	34	22.
Ninguna	28	14	10	20	72	47.
	50	34	22	46	152	100.
Los conductores manejan:						
Bien	12	10	9	11	42	27.
Regular	18	17	10	17	62	40.
Imprudentemente	20	7	3	18	48	31.
	50	34	22	46	152	100.

SS = SAN SALVADOR
AH = AHUACHAPAN
LL = LA LIBERTAD
SO = SONSONATE

ENCUESTA AL USUARIO DE TRANSPORTE PUBLICO TERMINAL DE ORIENTE

	SS/CU	SS/US	SS/CA	SS/SV	SS/SM	SS/MA	SS/CH	TOTAL	%
11 - 20 veces	6	0	5	2	2	3	4	22	11.96%
20 - 30 veces	11	0	17	8	1	18	9	64	34.78%
	24	5	39	25	25	33	33	184	100.00%
Prefiere usted viajar en:									
Autobus	19	4	34	22	16	25	26	146	79.35%
Microbus	5	1	5	3	6	6	6	32	17.39%
Taxi	0	0	0	0	3	2	1	6	3.26%
	24	5	39	25	25	33	33	184	100.00%
Pagaria usted una tarifa mayor para obtener									
Si	18	5	29	16	20	21	25	134	72.83%
No	6	0	10	9	5	12	8	50	27.17%
	24	5	39	25	25	33	33	184	100.00%
Mas rapidez	3	0	6	4	8	3	8	32	23.88%
Mas comodidad	8	5	15	11	3	13	9	64	47.76%
Mejor atencion	7	0	8	1	9	5	8	38	28.36%
	18	5	29	16	20	21	25	134	100.00%
Los autobuses interurbanos en que usted a viajado se han varado o accidentado?									
Una vez	6	2	4	2	2	4	1	21	11.41%
2 a 5 veces	10	1	15	7	6	11	12	62	33.70%
Mas de 5 veces	6	0	8	5	2	4	8	33	17.93%
Ninguna	2	2	12	11	15	14	12	68	36.96%
	24	5	39	25	25	33	33	184	100.00%
Los conductores manejan:									
Bien	8	2	13	14	13	9	15	74	40.22%
Regular	5	2	18	7	9	18	14	73	39.67%
Imprudentemente	11	1	8	4	3	6	4	37	20.11%
	24	5	39	25	25	33	33	184	100.00%

SS = SAN SALVADOR
CU = CUSCATLAN
US = USULUTAN
CA = CABAÑAS
SV = SAN VICENTE
SM = SAN MIGUEL
MA = MUNICIPIOS ALEDAÑOS
CH = CHALATENANGO

C. TERMINAL DEL SUR O PACIFICO

Propósito del viaje

Un 48.72% contesto que viaja por motivos familiares, siendo este mas elevado que el porcentaje de negocios o trabajo 28.21%, también puede notarse que un 5.13% lo hace por placer, porcentaje mas elevado en promedio con relación a las dos anteriores terminales.

Tipificación del servicio

El 58.97% indica que la comodidad es regular, un 33.33% que es buena, nadie respondió que hay excelencia. El 69.23% indica un exceso de paradas y un 25.64% que la rapidez es regular.

El 56.41% indican que la tarifa esta alterada, un 23.08% que es alta, y un 20.51% que bien. En cuanto a la atención un 56.41% indico que es regular y el 33.90% que es mala, solo un porcentaje reducido del 7.69% indica que es muy buena.

Frecuencia de viaje de los usuarios

El 35.90% indico que lo hace de 11 a 20 veces, un 33.33% de 1 a 10 veces, y por ultimo un 30.77% lo hace de 20 a 30 veces.

Preferencia por el tipo de transporte

El 46.15% contesto que prefieren el microbus, el 41.03% en autobús y solo el 12.82% indica que taxi.

Disponibilidad del usuario a pagar una tarifa mayor

Un 82.05% respondió que si, si se mejora en primer lugar la rapidez, en segundo lugar mejor atención, y por ultimo mas comodidad. Solamente un 17.95% respondió que debe incrementarse la tarifa.

Frecuencia de accidentes o desperfectos mecánicos

Con respectos a la frecuencia que los pasajeros han experimentado accidentes o desperfectos mecánicos contestaron así; 25.64% ninguna vez y 61.54% mas de dos veces.

Forma en que conducen los motoristas

En cuanto al manejo de las unidades un 61.54% indico que lo hacen regular, un 25.64% imprudente, y solo un 12.82% que lo hacen bien.

ENCUESTA AL USUARIO DE TRANSPORTE PUBLICO TERMINAL DEL SUR O PACIFICO

	S/LP	$/US	TOTAL	%
Proposito del viaje				
Negocios o trabajo	5	6	11	28.21%
Familiar	12	7	19	48.72%
Placer	2	0	2	5.13%
Diligencias personales u otros	3	4	7	17.95%
	22	17	39	100.00%
Como cataloga usted				
Comodidad				
Excelente	0	0	0	0.00%
Buena	5	8	13	33.33%
Regular	15	8	23	58.97%
Mala	2	1	3	7.69%
	22	17	39	100.00%
Rapidez del viaje				
Muy bien	1	0	1	2.56%
Regular	7	3	10	25.64%
Baja velocidad	1	0	1	2.56%
Exceso de paradas	13	14	27	69.23%
	22	17	39	100.00%
Tarifa ¢				
Alta	4	5	9	23.08%
Bien	6	2	8	20.51%
Baja	0	0	0	0.00%
Alterada	12	10	22	56.41%
	22	17	39	100.00%
Atencion				
Muy bien	1	2	3	7.69%
Regular	12	10	22	56.41%
Mala	9	5	14	35.90%
	22	17	39	100.00%
Cuantas veces hace Usted este viaje al mes ?				
1 - 10 veces	5	8	13	33.33%

ENCUESTA AL USUARIO DE TRANSPORTE PUBLICO TERMINAL DEL SUR O PACIFICO

	SS/LP	SS/US	TOTAL	%
11 - 20 veces	10	4	14	35.90%
20 - 30 veces	7	5	12	30.77%
	22	17	39	100.00%
Prefiere usted viajar en:				
Autobus	9	7	16	41.03%
Microbus	10	8	18	46.15%
Taxi	3	2	5	12.82%
	22	17	39	100.00%
Pagaria usted una tarifa mayor para obtener				
Si	20	12	32	82.05%
No	2	5	7	17.95%
	22	17	39	100.00%
Mas rapidez	6	8	14	43.75%
Mas comodidad	6	2	8	25.00%
Mejor atencion	8	2	10	31.25%
	20	12	32	100.00%
Los autobuses interurbanos en que usted a viajado se han varado o accidentado?				
Una vez	2	3	5	12.82%
2 a 5 veces	6	8	14	35.90%
Mas de 5 veces	8	2	10	25.64%
Ninguna	6	4	10	25.64%
	22	17	39	100.00%
Los conductores manejan:				
Bien	5	0	5	12.82%
Regular	14	10	24	61.54%
Imprudentemente	3	7	10	25.64%
	22	17	39	100.00%

SS = SAN SALVADOR
LP = LA PAZ
US = USULUTAN

D. TERMINAL DE SAN MIGUEL

Propósito del viaje

El 33.33% respondió que por trabajo, de la misma manera y en misma proporción fue el resultado de los que se trasladan por motivos familiares 33.33%, un 29.63% por diligencias personales. Solo un 3.70% dijo que lo hace por placer.

Tipificación del servicio

Un 48.15% afirman que la comodidad es mala, el 44.44% que es regular y solamente un 7.4% creen que es buena y excelente.

En cuanto a la rapidez del viaje el 48.15% contesto que las unidades hacen un exceso de paradas, y el 25.93% que los recorridos se realizan a baja velocidad.

Un 51.85% contesto que la tarifa esta alterada, un 29.63% respondio que la tarifa esta bien, y un 3.70% contesto que la tarifa es baja.

El 59.26% respondió que la atención es mala, y un 37.04% que es regular.

Frecuencia de viajes de los usuarios

El mayor porcentaje: 40.74% lo obtuvo los que lo hacen de 20 a 30 veces, un 37.04% que lo hacen de 11 a 20 veces y un porcentaje menor del 22.22% viajan de 1 a 10 veces.

Preferencia por el tipo de transporte

En cuanto a la elección del tipo de transporte prefieren el autobús con un 48.15%, un 40.74% respondió que en microbus, y un 11.11% dijo que por taxi.

Disponibilidad del usuario a pagar una tarifa mayor

Un 96.30% esta de acuerdo en pagar una tarifa mayor de la actual, para obtener en primer lugar mas rapidez, mayor atencion como segundo lugar y por ultimo mejor comodidad.
Solo un 3.70% dijo no estar de acuerdo a un incremento en la tarifa

Frecuencia de accidentes o desperfectos mecánicos

Un 29.63% respondió que ninguna vez ha experimentado un accidente, el 55.55% mas de dos veces, y el 14.81% solamente una vez.

Forma en que conducen los motoristas

Un 55.56% contesto que los motoristas manejan imprudentemente al realizar su trabajo, el 33.33% que lo hacen regular, y solo un porcentaje de 11.11% dice hacerlo bien.

ENCUESTA AL USUARIO DE TRANSPORTE PUBLICO TERMINAL DE SAN MIGUEL

	SM	%
11 - 20 veces	10	37.04%
20 - 30 veces	11	40.74%
	27	100.00%
Prefiere usted viajar en:		
Autobus	13	48.15%
Microbus	11	40.74%
Taxi	3	11.11%
	27	100.00%
Pagaria usted una tarifa mayor para obtener		
Si	26	96.30%
No	1	3.70%
	27	100.00%
Mas rapidez	14	53.85%
Mas comodidad	5	19.23%
Mejor atencion	7	26.92%
	26	100.00%
Los autobuses interurbanos en que usted a viajado se han varado o accidentado?		
Una vez	4	14.81%
2 a 5 veces	9	33.33%
Mas de 5 veces	6	22.22%
Ninguna	8	29.63%
	27	100.00%
Los conductores manejan:		
Bien	3	11.11%
Regular	9	33.33%
Imprudentemente	15	55.56%
	27	100.00%

ENCUESTA AL USUARIO DE TRANSPORTE PUBLICO TERMINAL DE SAN MIGUEL

	SM	%
Proposito del viaje		
Negocios o trabajo	9	33.33%
Familiar	9	33.33%
Placer	1	3.70%
Diligencias personales u otros	8	29.63%
	27	100.00%
Como cataloga usted		
Comodidad		
Excelente	1	3.70%
Buena	1	3.70%
Regular	12	44.44%
Mala	13	48.15%
	27	100.00%
Rapidez del viaje		
Muy bien	0	0.00%
Regular	7	25.93%
Baja velocidad	7	25.93%
Exceso de paradas	13	48.15%
	27	100.00%
Tarifa ¢		
Alta	4	14.81%
Bien	8	29.63%
Baja	1	3.70%
Alterada	14	51.85%
	27	100.00%
Atencion		
Muy bien	1	3.70%
Regular	10	37.04%
Mala	16	59.26%
	27	100.00%
Cuantas veces hace Usted este viaje al mes ?		
1 - 10 veces	6	22.22%

E. TERMINAL DE USULUTAN

Propósito del viaje

El 47.83% indica que las personas se trasladan por razones de trabajo, y un 30.43% lo hace por cuestiones familiares.

Tipificación del servicio

En cuanto a la comodidad el 56.52% indico que es regular, un 30.43% indico que es malo, y en la opción de excelente resulto ser nulo. En cuanto a la rapidez, el 69.57% indica que las unidades tienen un exceso de paradas cuando se trasladan, y un 21.74% indica que se conducen a baja velocidad.

En cuanto al precio de la tarifa, un 65.22% contesto que esta bien. Al respecto de la atención, un 69.57% indico que es mala, y el 30.43% regular.

Frecuencia de viajes de los usuarios

El 43.48% lo hace de 20 a 30 veces, el 30.43% de 1 a 10 veces, y el 26.09% de 11 a 20 veces.

Preferencia por el tipo de transporte

Un 56.52% expresa que el microbus, el 34.78% en autobús, solo el 8.70% indico hacerlo por taxi.

Disponibilidad del usuario a pagar una tarifa mayor

El 86.96% indico estar de acuerdo a un incremento del pasa e para tener en primer lugar rapidez en su servicio, en segundo mejor atención y en tercer lugar mas comodidad.

Frecuencia de accidentes o desperfectos mecánicos

El 69.56% indico que se ha accidentado de dos veces a mas, el 21.74% ninguna vez, y solo el 8.70% una vez.

Forma en que conducen los motoristas

El 13.04% expreso que manejan bien el 13.04%, el 26.09% que lo hacen regular, y un porcentaje elevado del 60.87% lo hace imprudentemente.

ENCUESTA AL USUARIO DE TRANSPORTE PUBLICO TERMINAL DE USULUTAN

	US	%
Proposito del viaje		
Negocios o trabajo	11	47.83%
Familiar	7	30.43%
Placer	1	4.35%
Diligencias personales u otros	4	17.39%
	23	100.00%
Como cataloga usted		
Comodidad		
Excelente	0	0.00%
Buena	3	13.04%
Regular	13	56.52%
Mala	7	30.43%
	23	100.00%
Rapidez del viaje		
Muy bien	0	0.00%
Regular	2	8.70%
Baja velocidad	5	21.74%
Exceso de paradas	16	69.57%
	23	100.00%
Tarifa ¢		
Alta	3	13.04%
Bien	15	65.22%
Baja	0	0.00%
Alterada	5	21.74%
	23	100.00%
Atencion		
Muy bien	0	0.00%
Regular	7	30.43%
Mala	16	69.57%
	23	100.00%
Cuantas veces hace Usted este viaje al mes ?		
1 - 10 veces	7	30.43%

ENCUESTA AL USUARIO DE TRANSPORTE PUBLICO TERMINAL DE USULUTAN

	US	%
11 - 20 veces	6	26.09%
20 - 30 veces	10	43.48%
	23	100.00%
Prefiere usted viajar en:		
Autobus	8	34.78%
Microbus	13	56.52%
Taxi	2	8.70%
	23	100.00%
Pagaria usted una tarifa mayor para obtener		
Si	20	86.96%
No	3	13.04%
	23	100.00%
Mas rapidez	12	60.00%
Mas comodidad	3	15.00%
Mejor atencion	5	25.00%
	20	100.00%
Los autobuses interurbanos en que usted a viajado se han varado o accidentado?		
Una vez	2	8.70%
2 a 5 veces	7	30.43%
Mas de 5 veces	9	39.13%
Ninguna	5	21.74%
	23	100.00%
Los conductores manejan:		
Bien	3	13.04%
Regular	6	26.09%
Imprudentemente	14	60.87%
	23	100.00%

ANNEX 7.7.1

SURVEY FORMS TO PUBLIC TRANSPORTATIONS OPERATORS

ENCUESTA A LOS OPERADORES DEL TRANSPORTE PUBLICO

1 Empresa: _____ Dirección: _____

_____ _____

_____ Teléfono: _____

2 Nombre del Gerente: _____ Teléfono: _____

3 N° de Rutas Autorizadas: _____ **4** N° de Rutas Operando: _____

5 Descripción de las Rutas en Operación:

Origen	Destino	N° de Ruta	Tiempo de Viaje	N° de Vehiculos	Frecuencia	Tarifa

6 Flota de Vehiculos Existente:

Marca	Año	G/D	Capacidad Sent.	Capacidad Parad.	Condición Actual Buena	Condición Actual Regular	Condición Actual Parado

(continúe en una página separada si es necesario)

Terminales de las Rutas:

Localización: _____ N° de Fiscales: _____

Número de Chóferes: _____ Número de Cobradores: _____

Personal Administrativo: _____ Celadores: _____

Personal de Mantenimiento: _____ Otros: _____

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11 Cómo hace Usted el Mantenimiento a sus Autobuses?

☐ Usted mismo ☐ En taller particular ☐ Su taller propio

Costo Cambio de Aceite/mes: ¢ _____ Costo Repuestos/mes: ¢ _____

Costo Cambio de Frenos/mes: ¢ _____ Costo Afinado/mes: ¢ _____

_____ Costo de Reparación por Accidentes: ¢/año _____

12 Favor especificar lo siguientes Valores Unitarios:

Número de Llantas del Vehiculo: _____

Costo de Llantas Nuevas: ¢/unidad: _____ Duración: _____ Meses

Costo del Combustible ¢/Galón: _____ Consumo: _____ Galones/Dia

Kilómetros Recorridos/Mes-V: _____ Pasajeros/Dia (L . a V.): _____ p/d

Dias Trabajados/Mes: _____ Pasajeros/Sab-Dom: _____ p/d

Vida Util del Vehiculo: _____ años Pasajeros/Mes: _____

Costo de Lubricantes ¢/ Lt.: _____ Costo del Vehiculo Nuevo: ¢ _____

13 Costo de Mano de Obra:

	¢/Mes	Prest. Sociales	Otros	Total (¢/Mes)
Administrativo:	_____	_____	_____	_____
Chóferes:	_____	_____	_____	_____
Supervisores:	_____	_____	_____	_____
Mecánicos:	_____	_____	_____	_____
Gerente:	_____	_____	_____	_____

14 Otros Costos:

Alquiler ¢/Mes: _____ Servicios ¢/Mes: _____ Otros ¢/Mes: _____

Publicidad: _____ Costo Seguro ¢/mes: _____

ANNEX 7.8.1

REFERENCE TERMS ON PRIORITY PRELIMINARY STUDIES

ESTUDIOS E INVESTIGACIONES QUE DEBE REALIZAR LA D.G.T.T.
OBJETIVOS Y ALCANCES

ESTUDIOS PRIORITARIOS

A) Estudios de Oferta y Demanda por Ruta

Objetivo:

Establecer requerimientos de servicio, balance oferta-demanda, y la necesidad y conveniencia de introducir nuevos tipos de servicios en ciertas rutas.

Alcances:

- Actualizar y establecer la cantidad de líneas o permisos de servicio de autobuses, la flota existente autorizada y sus frecuencias en una muestra de principales rutas en donde:

  - Se considera puede haber exceso o deficit de oferta,
  - En donde existe competencia autorizada, o sin permiso de microbuses
  - Existan nuevas solicitudes de aumento de servicio

- Establecer la cantidad de pasajeros movilizados en días Viernes a Lunes inclusive y Martes a Jueves, por vehículo y total por ruta

- Calcular factores de carga e indices de eficiencia operativa por empresario

- Recomendar, si se requiere, hacer cambios en los niveles de oferta por ruta

- Analizar y recomendar los lineamientos de una nueva política para la introducción de nuevos servicios de microbuses

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B) Estudios de Costos por Tipo de Empresario y de Ruta

Objetivo:

Establecer la estructura de costos por tipo de empresario, con el fin de obtener criterios para diseñar una política tarifaria y de subsidios.

Alcances:

- Analizar por muestreo de una lista representativa de rutas de distintos tipos los costos de capital, operación y mantenimiento de distintos tipos de tamaños de operadores.

- En conjunto con los resultados del estudio anterior, establecer niveles de rentabilidad de las operaciones.

- Analizar la factibiliddad y conveniencia de establecer una política tarifaria diferencial por tipo de ruta, tipo de empresa y nivel de servicio según la edad de los vehículos.

- Analizar la factibilidad de establecer un subsidio a los operadores, por medio de incentivos para la reposición de la flota, a cambio del subsidio actual al combustible.

- Recomendar sistemas de contabilidad, a ser reportada semanalmente por los operadores a la DGTT, nuevos sistemas de fiscalización simplificados que reemplacen al sistema actual, esquemas tarifarios y de subsidios.

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ESTUDIOS DE MENOR PRIORIDAD

A) Estudios de Demanda Global, Origen-Destino

Objetivos:

Establecer los patrones de demanda de transporte público de pasajeros interurbano, por origen-destino a nivel nacional, a fin de reestructurar el sistema de rutas.

Alcances:

- Diseñar, ejecutar y procesar los resultados de una encuesta por muestreo de origen-destino de los viajes totales en transporte público interurbanos a nivel nacional.
- Analizar los resultados de la encuesta y recomendar los cambios que sean necesarios en la estructura de rutas existentes en la actualidad.
- Analizar la magnitud de la demanda que se moviliza en la actualidad en vehículos pick-ups y microbuses, y recomendar una política de asignación de nuevas rutas de microbuses para los actuales operadores de pick-ups.

B) Estudio Integral de Terminales Interurbanos

Objetivos:

Analizar la necesidad de ejecutar un Plan Nacional de Terminales de Transporte Público Interurbano, dimensionarlo y analizar su factibilidad económica.

Alcances:

- Definir cuantos y cuales terminales interurbanos deben construirse a nivel nacional, dentro de un Programa de Inversiones a cinco y diez años, en función de la demanda de viajes actual y futura.

- Definir la ubicación aproximada de los terminales recomendados en cada ciudad, tipificar tres o más tipos de terminales para distintos tipos de ciudades y dimensionar los requerimientos para los próximos diez años.

- Estimar los costos de construcción (terrenos, edificios y equipamiento), operación y mantenimiento y estimar posibles ingresos por concepto de utilización y concesiones. Analizar la factibilidad económica de su construcción por el sistema de concesión con el sector privado.

- Desarrollar las bases, criterios y lineamientos para realizar un concurso-licitación para la construcción y operación de los terminales por concesión, con participación de las Alcaldías respectivas y el GOES.

- Recomendar un programa de Inversiones y un Cronograma de Ejecución del mismo para los próximos cinco y diez años.

ANNEX 7.10.1

FORMS UTILIZED FOR SURVEYS OF CARGO TRANSPORT USERS

ENCUESTA A LOS USUARIOS DEL TRANSPORTE DE CARGA

1 Empresa: _____

2 Dirección: _____ Teléfonos: _____

_____ _____

_____ Fax: _____

3 Representante: _____

4 Tipo de carga que moviliza: _____

5 Importación: _____ Exportación: _____ Nacional: _____

6 Principales orígenes y destinos, volúmenes movilizados, tarifas usuales recientes por tipo de carga.
(especificar si es solo transporte o si es Pta. Pta.)

Origen	Destino	Tipo de Carga	Tons/año M3/año	¢/Ton
A) Camión				
B) Ferrocarril				

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ENCUESTA A LOS USUARIOS DEL TRANSPORTE DE CARGA

7 Percibe Usted que el servicio de transporte de carga en El Salvador es competitivo? _____

Considera que tiene normalmente oportunidad de escoger su transportista, o es un mercado monopolístico? _____

Tiene usted oportunidad de negociar tarifas? _____

8 Cómo cataloga usted las siguientes medidas de calidad del servicio prestado por sus transportistas?

Rapidez O-D	Confiabilidad y Puntualidad	Seguridad	Costo de trasbordo o manejo	Puertos ó Ferro-carriles
☐ Excelente	☐ Excelente	☐ Excelente	☐ Alto	Pto.
☐ Buena	☐ Buena	☐ Buena	☐ Bien	¢/Ton: _____
☐ Regular	☐ Regular	☐ Regular	☐ Bajo	FFRR
☐ Mala	☐ Mala	☐ Mala		¢/Ton: _____

Paso de Fronteras; (indique cual)

Tiempo
- ☐ Menos de 2 Hrs
- ☐ 2 a 6 Hrs
- ☐ Más de 6 Hrs

- ☐ Díficil
- ☐ Bien
- ☐ Regular

(explicar)

Paso Frontera: _____

Costo/Ton _____

Servicio de Pta a Pta
- ☐ Bueno
- ☐ Regular
- ☐ Malo

9 Problemas más serios que enfrenta como usuario:

_____

_____

_____

_____

_____