

# FUNDAMENTAL PROBLEMS OF ISTANBUL TRANSPORTATION: ADMINISTRATION AND ITS RAMIFICATIONS

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## 1 INTRODUCTION

All major cities in the world are faced, to lesser or greater degrees, with transportation problems that they are trying to solve.

With a population that now exceeds ten million, Istanbul has been plagued for the past several years with severe transportation problems and it too is searching for ways to alleviate the problems.

Even though, however, the transportation problems of Istanbul are just one part of a greater problem of development, this study will focus on transportation in Istanbul and the problems related with it.

In this study it has been seen that much of Istanbul's transportation problem rests on its disorganized and overlapping authority structure. The shortcomings and inadequacies inherent in this structure have negative effects on the efficient provision of transportation, especially those related to planning.

## 2 ISTANBUL TRANSPORTATION: AN OVERVIEW

The province of Istanbul comprises a 5512 square kilometer area. According to the general census taken in 2000, its population now is 10,070 000.

Mode of Transportation	Modal Split (%)	Vehicle Number
Private automobile	19.2	1,300,000
Taxi + Shared Taxi	9.4	17,715
Chartered transportation	11.5	25,800
Buses (municipal and private)	34.1	3,500
Minibus	19.6	5,055
Railed conveyances	3.6	
Sea Way (municipal ferries + catamarans + motor boats)	2.6	80 ferryboats + 240 catamaran/motorboats
<b>TOTAL</b>	100	

Table 1. Modal Split of Istanbul Transportation

As Table 1 demonstrates, road transportation comprises 93.8% of all modes of transportation in Istanbul. While privately owned automobiles make up only 19.2% of the available transportation modes, they utilize more than 60% of the limited road resources of the city. While, on the other hand, buses use only 4-5% of the road resources they carry 34% of total passengers. Even more significant, the numbers of private cars and other small conveyances on Istanbul streets act to reduce the speed traveled by buses by ten – twelve kph, thus increasing the travel time spent by passengers, decreasing the numbers of users, and wasting energy sources.

Privately owned waterway transportation in Istanbul has also decreased significantly, both in total and in real values. And despite the fact that efforts continue toward the development of railed systems, the share of these systems' utilization in the total has dropped to under 4%.

Two-thirds of all of Turkey's automobile accidents occur within the Istanbul province. Each year 500 deaths are caused by these accidents and the country experiences an annual material loss that exceeds hundreds of trillions of Turkish Liras.

Studies carried out in 1990 showed that Istanbul's daily smog consisted of 568 tons of carbon monoxide, 103 tons of hydrocarbons, 9.5 tons of particles, 13.4 tons of sulfuric oxide, and 780 kilograms of lead. 60% of this smog is concentrated during six of the day's hours. It is probably not incorrect to state that this figure has doubled during the intervening years.

In short, 90% of the transportation in Istanbul is made up of highway traffic that has severely negative effects on the geography, topography, natural, and—especially—historical features of the city. This statistic itself provides an adequate understanding of the degree of the problematic nature of transportation in Istanbul. In conclusion we can describe transportation in Istanbul as unbalanced, unhealthy, and expensive.

A lack of planning is the real reason why the city's transportation problems have become so deep and so enduring.

It is now imperative that the articles of the approved "Central Plan for Istanbul Transportation," be carefully followed, that it is implemented decisively, and amended when necessary. The transportation system called for in the plan consists of mass transportation systems, including an approximately 300-kilometer rail system, a system of waterway transportation, and bus transportation, in addition to minibuses, chartered vehicles, jitneys, and taxis for lower density transportation.

### **3 ISTANBUL'S TRANSPORTATION AUTHORITY AND OBSTACLES FOR PROVISION OF EFFICIENT SERVICES**

The transportation agencies operating within the Istanbul municipal area can be grouped under four major headings as described below:

1. Central Government Authorities
2. City Authorities

3. Privately Owned Transportation Agencies
4. Interagency Coordination Units

The responsibilities and authority of all are regulated by three laws that apply to the municipalities and highways.

When these laws and regulations are examined it can be seen that some of the laws relative to the various agencies overlap or even conflict. In some instances the responsible authority has not been clearly defined or designated so in some cases lack of decision leads to the non-implementation of investments.

Table 2 demonstrates how responsibilities are distributed among various agencies. Accordingly, the major agencies involved in implementing the planning and planning implementation activities relative to transportation include the Greater Municipality, the Railroad Department (TCDD), Department of Highways (TDK), and the Marine Authorities (TCI), resulting in an overlapping and conflicting authority structure. An investigation of internal supervisory and monitoring functions of transportation types shows that only the Department of Highways experiences problems in supervision and monitoring. In addition, the internal structure of the Greater Municipality and the relationships between the Greater and Lesser Municipalities demonstrate greater harmony in coordination, even though conflicts may arise at times.

Table 2.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Preparation of Transportation Plan	x	x				x	x		x		x	x	x		x	
Implementation of Transportation Plan	x	x				x	x	x	x		x	x	x			
Infrastructure Planning	x	x	x	x		x	x	x		x				x		x
Realization of Infrastructure	x	x	x	x		x				x						
Traffic Management					x										x	
Traffic Organization	x	x		x	x					x		x			x	x
Monitoring of moving traffic				x	x											
Monitoring of parked traffic				x	x					x						
Mass Transportation	x	x							x		x					
Coordination												x	x	x		

1. TCDD (Turkish Republic State Railways)
2. TDİ (Turkish Maritime Operations)
3. TCK Region 1 (Turkish Republic Highway Department)
4. TCK Region 17 (Turkish Republic Highway Department)
5. Traffic Office, Security Dept. of Istanbul
6. Head Office of Projects
7. Dept. of Transportation Coordination
8. Traffic Headquarters
9. İETT (Istanbul Electric Tramway /Tunnel Administration)
10. Provincial District Municipalities
11. Sea Buses Management Headquarters
12. UKOME (Transportation Coordination Center)
13. Transportation Coordination Technical Board
14. AYKOME (Infrastructure Coordination Center)
15. Province, provincial District Traffic Committees
16. Advisory Board

The negative consequences of this conflicting authority structure include the following:

- Although they have to work in conjunction with one another, the railroad department (TCDD), city bus lines (IETT), and other like agencies do not coordinate their vehicle stops and stations, time schedules, transfers, and pricing policies in a constructive manner.
- Despite the fact that the Provincial Traffic Commission has extremely important responsibilities in regards to traffic organization and control, they do not have enough members on the commission who are capable of making largely engineering decisions.
- Only the Branch Office of Traffic Police has the legal right to monitor traffic. Due to the inadequacies of personnel and resources within this office, they are today unable to fully carry out their responsibilities.
- In 1981 in order to eliminate these coordination weaknesses and to accelerate the decision-making process revisions were made to Law 3030 establishing UKOME and AYKOME within the auspices of the Greater Municipality. These revisions stipulate that all relative agencies must abide by the decisions made by UKOME. Despite this revision, the authorities of this agency overlap with those of the Provincial Traffic Commission.
- Because planning activities, implementation, supervision, and monitoring activities related to transportation overlap, resulting in a conflicting pattern of authority coordination, decision-making and implementations are difficult to achieve, thereby acting to eliminate supervisory effectiveness.

#### **4 PLANNING AND ADMINISTRATIVE STRUCTURE**

The administrative structure that is vital to the outcome of any plan is very often ignored in conventional transportation planning and in the stages of plan implementation. In practice, the plan is usually considered to be limited to the implementation of models developed according to the unique features of the conditions at hand and generally has a technical aim.

Thus, just as the administrative structure does not contribute to the development of the relative items of the plan, the planning process is carried out outside of their input and they, then, do not acknowledge the plan or their responsibilities as outlined in the plan.

Actually, there is not a long history of planning. Besides this, because the authorities charged with plan implementation are cut off from the planning process and do not have the technical documentation their ability to implement the plan effectively is greatly weakened.

Another weak point of the planning is related to financing. Because the plan is drawn up independently of the implementing authority, plans that do not take financing into consideration have failed to this date to be effective.

In Istanbul transportation planning is carried out by local authorities. Other authorities who are included in the project do not accept the idea that they are required

to assume the stated responsibilities. Or there have been instances where the financing has been established independently from the plan and then assumed as a resource for the project at hand.

Similar examples point to serious barriers in plan implementation.

## **5 SEARCHING FOR SOLUTIONS**

The main sources of problems in the cities of developing countries in particular are lack of planning and insufficient funding. However, even more important than these problems is the lack of an authority responsible for solving transportation problems. In other words, a lack of coordination and administrative confusion with regard to transportation is being experienced in the cities of developing countries.

In large cities, the automobile is the fundamental factor weighing upon transportation problems.

Although the number of automobiles in the cities of developing countries is relatively low, due to the lack of accord between the city and the automobile problems arising from the use of automobiles present themselves in graver dimensions. Furthermore, limited capacity vehicles claim a large share of the transportation taking place due to insufficient means of mass transportation. This in turn leads to the slowing down of highway transportation.

The Istanbul transportation administration, in its present condition, is in a state of confusion. Under these conditions, it is not possible for the existing potentials to be used effectively or the system to be developed in an appropriate manner. Thus, the most important factor that Istanbul transportation lacks is an administration that has the sufficient composition to ensure coordination among the types of transportation.

In conclusion, the Istanbul Transportation Evaluation and Orientation program, under the leadership of the Greater Istanbul Municipality, was put into action. The program is being run by four groups working on the topics of "Planning," "Mass Transportation," "Financing," and "Transportation Administration."

The reports prepared by these groups will be discussed on 14-15-16 March and final opinions and suggestions will be put forth accordingly.

The "Transportation Administration Group" is at this stage discussing three solution alternatives. In each one of these three possible solutions, the formation of an authority that would eliminate the multiple heads is considered to be essential.

1. Improvement of the existing situation.
2. Formation of an administrative unit that, although bound to the Greater Municipality, would be able to function autonomously on some projects.
3. Formation of an entirely autonomous administrative unit

There are two elements foreseen as being part of each one of these solution alternatives: that of a "high board," which would essentially make all fundamental decisions relating to transportation politics and strategies, and a "technical board and

implementation organization,” which would provide this board with information support and carry out the functions of implementation, arrangement, and supervision in light of the fundamental decisions made.

The political character of the high board that will make all fundamental decisions is also a subject of debate.

All of the alternatives will more or less require new legislature.

## **6 CONCLUSION**

In urban transportation we can see a primary need for the effective use of the existing possibilities and their development under appropriate conditions, as well as an administration that can provide intelligent coordination for all of the components of transportation.

The topic is of particularly great significance in the metropolises of developing countries because these countries are usually lacking an administration that is adept at coordination. Furthermore, because these metropolises still do not have an effective mass transportation infrastructure, they need to make important investments. The correct planning and realization of these investments might be possible with an integrated evaluation and administration. Otherwise, large resources will be squandered. There are many examples of this.

The transportation administration problem must be resolved, but without ignoring the planning as well as the finance problem in particular.

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