

AN INVESTIGATION OF THE
CURRENT TRANSPORTATION CRISIS IN MANILA

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by

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This is to certify that this undergraduate thesis entitled,
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INTRODUCTION

Traffic congestion in the Manila area is clearly getting more serious with each passing day. The never ending inflow of vehicles on the main streets that are not getting any wider causes the vehicles to move at snails pace, even worse, the getting caught in the middle of a traffic gridlock, a common occurrence during rush hours in the metropolis.

Such traffic condition is definitely harmful to businesses, industries and other urban activities. According to a news article, statistics show that 3% of daily commuters use the LRT; 12% use buses; 40% use jeepneys, and 45% use private cars. Through these information, the roads specifically the main streets are occupied by public and private utility vehicles which make the roads insufficient for their mobility. (Manila Chronicle, Oct 15 '90).

Presently, new cars are imported by the dozens, like Toyota Corollas, Mitsubishi's, and Nissans which flood our main roads. Another factor would be discipline. Lack of law enforcement is present due to bribes issued by drivers, specifically private drivers. Reasons for this behavior is due to low salary rates of the policemen, who have families to support. Nevertheless these law enforcers should uphold the law. Government officials should set a good example for private drivers. Presently, it is the government-owned cars which are the first to disobey the rules of traffic.

This present study aims to investigate the current transportation problem which have continually been existing in the late '80's.

Transportation is a vital necessity for a country to be socially productive and economically stable. The further degradation of our transport system would inhibit the economic growth of the country and cause more socially unstable behavior in the state.

CHAPTER I

I. FORMULATION OF THE PROBLEM

In the Philippines, specifically in Metro Manila, wherein thousands of people use public transportation to travel from one place to another, has become a public problem. As early as 1986, the practice of overloading of passengers in buses and jeeps, and undisciplined attitudes of commuters and drivers to follow traffic rules and regulations has aggravated the situation.

This paper investigated the transport problems which have affected the daily lives of the commuters in the Manila city. It attempted to investigate specific causes which have led to overcrowding of public vehicles and traffic tie-ups.

Recent statistics show that in Metro Manila, only 3% of daily commuters use the LRT; 12% use buses; 40% use jeepneys and 45% use private cars. It is apparent that the increase use of private utility vehicles have contributed to the problem of road utilization.

The importance of discipline among drivers and policemen have to be emphasized. This is one aspect which the Filipino people took for granted. This study involves the quantitative analysis of traffic data in Metro Manila, specifically the areas of Taft, Espana, Quiapo, Ermita and Vito Cruz.

II. FORMULATION OF THE HYPOTHESIS

The current transportation crisis is caused by the lack of a well programmed transport system, which involves commuters, drivers and government officials in the implementation of traffic rules, and the volume of public

and private vehicles plying the road.

III. DEFINITION OF TERMS

1. TRANSPORTATION CRISIS - refers to the lack of public utility vehicles, overcrowding, overpopulation, and other problems in the mode of transportation.

2. PUBLIC UTILITY VEHICLES - any organized passenger service that is available to the general public. These include, buses, jeeps, taxis and LRT.

3. PRIVATE TRANSPORTATION - refers to owner driven vehicles which is not available to the public.

IV.. METHODS TO BE USED

1. Data collection which would involve interpersonal communication. Through this, this study would find out the causes of the transportation problem. Questionnaires would be distributed among the public utility drivers, commuters, government officials and private drivers. Direct personal interviews would be conducted with the drivers, commuters, and the administrators of LTC, City Hall of Manila city. There would be a total of 100 interviewees, consisting of 20 commuters, 20 jeepney drivers, 20 taxi drivers, 20 government officials and 20 private drivers.

2. Analysis of the data would be utilized to determine the root cause of the transportation crisis. In addition, charts would serve as a guide to determine the growth of the number of registered vehicles and the population of certain districts in Manila.

3. Purposive sampling would be used in the study. This involves the population of people in a certain area.

4. Cluster sampling which starts from a large category into a smaller category would be utilized. A survey, for example, of city to districts.

Here, interviewees would be gathered from public and private drivers to commuters in certain areas in Manila.

5. Random sampling in each district would be utilized.

V. REVIEW OF LITERATURE

There were previous studies done about this topic involving traffic regulations which tackle the effectivity of the Q.C. traffic division of the Northern Police District. Articles are also offered in the main library of U.P. Diliman. Also a recent thesis was also made regarding transportation, entitled "An Analysis on the Backward and Forward Linkages of the Other Land Passenger Transportation Sector".

Other related topics on this study are present in newspapers, such as the Daily Inquirer, Manila Chronicle, and Bulletin Today.

Institutions like LTC, City Hall and other related companies have libraries wherein this study could get some materials.

This study is new and related topics to this study is insufficient.

VI. SCOPE AND LIMITATIONS OF THE TOPIC

This study would only involve such transportation crisis existing in the Manila city area.

The entire study will have three phases:

1 month - data collection

2 weeks - editing and tabulating data and analysis of data

2 weeks - writing of the final paper

The entire study will take 2 months.

VII. SIGNIFICANCE OF THE STUDY

This study may help determine the main causes of the existing transportation crisis. It would survey the different conditions and

opinions of the people involved in transportation. This study aims for consciousness and self-awareness in the existing transportation condition in the Manila city.

CHAPTER II

City streets in Manila cover a total length of 442.03 kilometers consisting of 56% asphalt, 24.25% concrete, 19.75% gravel. The National roads embrace 226.03 kilometers of the city's land, of which 37 bridges are built around Esteros surrounding the Manila area.

Here are some interesting statistics:

FIGURE 1: POPULATION (1982)

	Land Area (per sq.Km)	Population	Population density
Philippines National	298, 563	48,098,460	161.1
Capital Rgn. Manila	636 38.3	5,925,884 1,630,485	9,317.4 42,571.4

FIGURE 2: POPULATION OF MANILA PER DISTRICT (1982)

Dis.		Land Area (sq.Km)	Population	Population density (per sq.Km)
I-TONDO		5.64	353,060	62,599
II-BINONDO		3.46	266,344	76,978
III-QUIAPO		6.23	214,175	34,78?
IV- SAMPALOC		7.90	408,083	51,056
V-MALATE		9.59	122,251	12,748
VI-STA. ANA		5.48	266,572	48,644
MANILA		38.30	1,630,485	42,571.4

Source: City Hall of Manila, Planning Division

FIGURE 3: NO. OF SQUATTER FAMILIES AND INDIVIDUALS PER DISTRICT IN MANILA (1982)

District	# of Barangays		Squatter Population	
	with squatter families	No. of families	No. of individuals	
Dis. I&II	69	35,578	138,132	
III&IV	33	6,634	31,216	
part of Dis. IV&V	17	17,054	95,975	
Dis. V & part of Dis. VI	35	27,924	130,428	
TOTAL	154	87,190	395,752	

Source: City Hall of Manila, Planning Department

In the statistics illustrated, the Manila area has a total density of 42,571.4 per sq.km., which means, the total population of Manila which is estimated at 1,630,485 divided by the total density of 42,571.4 would be equal to the total land area which is 38.3 sq.km. making the area congested for the constituents, especially the residents. Transportation vehicles such as jeeps, LRT and buses are prioritized public transportation used by the commuters. The estimated number of registered motor vehicles and other classification in the last two years is seen in Figure 4.

FIGURE 4: THE NUMBER OF REGISTERED MOTOR VEHICLES IN 1987

CLASSIFICATION	AVERAGE NUMBER
Private	956,686
For Hire	155,239
Government	36,737
Diplomatic	<u>4,340</u>
TOTAL	288,250.5

Source: City Hall, Planning Department

The Light Rail Transit (LRT) averages 10,000 passengers daily which is only 3% of the daily commuters. The largest percentage utilizing the national roads are the private owned vehicles (Mr. & Ms., 19 Feb. 1985, p.6).

The city of Manila is now so thickly populated, that there are 42,571.4 thousand people per sq.km., the worst population density, while in Q.C. has only 9,000/sq.km. (City Hall, Planning Department). As the population boom dominates the city, problems such as garbage, pollution and traffic congestion increase (see Figure 5).

FIGURE 5: TOP 15 CONGESTED INTERSECTIONS

INTERSECTION	TRAFFIC VOLUME	AM PEAK	PM PEAK
EDSA/Ortigas	309,318	7-8	5-6
EDSA/Buendia	293,776	8-9	4-5
EDSA/Ayala	280,072	8-9	3-4
EDSA/Pasay Road	261,126	11-12	4-5
EDSA/Shaw Blvd.	255,162	8-9	5-6
EDSA/ Kamias	236,816	9-10	5-6
EDSA/Santolan	233,314	10-11	2-3
Nagtahan/Ramon Magsaysay	210,664	7-8	5-6
EDSA/Quezon Ave.	202,060	8-9	3-4
EDSA/West Ave.	199,472	8-9	5-6
R. Magsaysay/ M. dela Fuente	182,890	7-8	5-6
Taft Ave./Ayala	179,728	10-11	5-6
Espana/Quezon Ave./ E. Rodriguez	174,818	9-10	6-7
EDSA/Roosevelt	173,842	10-11	5-6
R. Magsaysay/Pureza	157,932	7-8	4-5

The number of business establishments, having a total of 99,003, contributed to the traffic congestion in the Manila city. The location of these businesses are situated in the main streets such as Taft, UN Avenue, and other roads which are frequently busy streets. The congestion of small commercial centers, business corporations is great due to narrow streets and its location. Putting up a business in prone traffic areas add to the traffic congestion. Parking spaces of owner driven cars would be taking much of the road thus making the streets even narrower. Vehicles would move at a slower rate to prevent any mishap when approaching vehicles and parked vehicles. Such traffic condition is definitely harmful to business, industry and other urban activities. It is always costly when a huge number of vehicles are running continuously just to gain crawling distance along heavily congested urban routes.

The city of Manila with its concentration of people and economic

activities is growing very rapidly. In common with other metropolitan areas of the developing world, this expansion has continued to produce far-reaching and complex urban problems, namely: poverty, poor housing and services, limited employment opportunities and a progressively inefficient urban transportation system.

In general, the transport and traffic problems in Metro Manila are mainly attributed to the deficiencies in the public transport and urban road systems.

The present state of Manila's public transport system is characterized by the shortage of transport vehicles to adequately service routes and the continued operation of dilapidated and pollution-emitting units. This situation is further aggravated by illegal operations such as trip cutting, fare overcharging, route switching, and refusal to convey passengers. Public transport operators have continued to withdraw services because of operating and financial difficulties. These are due to the high cost of operation and maintenance, long turnaround time as a result of severe traffic congestion, high cost of fleet replacement, limited access to cheap financing, and growing labor problems.

On the other hand, the present road network has become inadequate to meet the travel demands of the expanding metropolis. The road network is characterized by the partially developed primary road system, lack of well-planned and developed secondary arterial and distributor roads, uncoordinated development and inaccessible private roads, and inadequate and often outdated pavement and drainage struc-

tures, and road appurtenance. The deterioration of the public transport services and road condition have greatly inconvenienced the daily commuters and motorists, wasted valuable resources, compromised safety and environmental stability, and adversely affected economic activities.

Traffic congestion in Manila has worsened in recent years due mainly to the inadequate capacity of the road system and the rapid growth in private motor vehicle usage with in-roads achieved toward economic recovery. The sharp increase in the use of limited road space by the growing number of vehicles, mostly private cars, have not been matched by the corresponding increase in road construction and improved management of traffic on existing roads. These deficiencies resulted on a high percentage of vehicular trips being concentrated on a limited number of roads. The average road level of service and travel speed are expected to further be degraded in the coming years if the pent-up demand for vehicles continues until major road capacity expansion is completed, which will take many years because of the land time of such works.

The motorists and pedestrians in the Manila area are widely perceived to be undisciplined and discourteous. This behavior stems in part from the lack of awareness on traffic laws, inadequate traffic education program, lack of road facilities to guide them properly, and from the low level of enforcement of existing regulations. The pedestrians fare poorly in many parts of the Manila area. On the main roads, where pedestrian protection needs to be greatest, not enough attention has been directed towards providing and maintaining continuous pedes-

trian travel networks. In many locations, due to narrow or ill-maintained sidewalks, pedestrians are forced into the road to mix with vehicular traffic. This situation is further compounded by the presence of street vendors and other obstructions. At intersections, crossings are not well marked and motorists seldom yield to pedestrians unless they are forced to stop for other purposes.

The enforcement of traffic laws and regulations is generally deficient in the Manila area. Among the serious problems are: non-observance of traffic signals, lack of lane discipline, loading and unloading passengers on the road way and outside designated stops, and non observance of pedestrian crossing. Likewise, logistical support has been a perennial problem of enforcement agencies. Presently, equipment and other supplies issued for use of traffic personnel are inadequate and often times in poor state of disrepair. Lately, to further strengthen enforcement, traffic fines have been substancially increased through a MMC ordinance.

The further improvement in the mode of transportation, the better the chances there is for a well systematized and organized traffic flow.

CHAPTER III

From the survey that was conducted among a hundred people comprising of 20 commuters, 20 jeepney drivers, 20 taxi drivers, 20 private drivers, and 20 law enforcers, each gave different opinions on the causes of traffic and the possible solution in the Manila area. In the survey taken, the samples were chosen at random. They were located at the streets of Taft, Espana, Padre Faura and randomly chosen traffic prone areas in the Manila area.

Private drivers plying the route in the Manila area go as far as the Laguna area and up to Marikina. In this interview, 40% said that discipline is one of the main causes of traffic; followed by a 20% saying that there is an overflow of vehicles using the road; 10% said lack of roads; 5% for over-population; 5% few public transportation; 10% specified other reasons such as, destroyed roads and lack of traffic aids.

30% of taxi drivers which sprawl the areas of Taft and Espana and other streets in Manila said that there are too much private cars utilizing the road, making the road even more congested; 20% said that drivers have no discipline; 20% said that vehicles specifically private cars tend to leave all together at the same time, which promotes heavy traffic on the express way and intersections. 20% stated that there are insufficient roads and narrow streets which cannot equal the number of vehicles plying the road. And lastly, 10% said that the law enforcement is deteriorating. Traffic aids such as policemen could be bribed by

public and private drivers. The quality of policemen is low which enables the drivers, public and private to disregard the rules and regulations given to them.

According to the Commuters in the interview conducted, 60% said that there is no discipline among the sectors concerned, 10% said that there is too much cars; 10% stressed that over population is one of the causes; 10% also said that the public transportation is not sufficient enough for the number of commuters; and 10% said the reason is because of small and narrow streets.

Out of the 20 jeepney drivers, 60% also stated that there is no discipline; 20% said that there are too much cars and 20% said that law enforcers are corrupt and inefficient.

The public officials consisting of LTC employees and policemen, 40% said that discipline is minimal; 20% expressed that there is lack of law enforcement; 20% said that there is over population and 20% said that public transportation is limited.

These answers came from direct personal interviews stating the problems of the traffic crisis in Manila. The highest percentage would be discipline. Overpopulation, few public transportation, too much cars and lack of roads are the general reasons in the transportation crisis.

In solving the traffic crisis, out of the 20 commuters, 25% said that rules should be strengthened and enforced. 15% said that the government should invest in the mode of transportation. This means that the government should prioritize their funds and direct it towards the improvement of the various sectors in transportation. There should

be an increase in the salaries of policemen which would enable them to do their duties well. Secondly, it would lessen corrupt officials in implementing traffic rules and regulations. The production of more public utility vehicles is needed to accommodate the number of commuters in the Manila area. Construction for more roads to widen the space area of traffic prone areas. Another 15% said that buses should be scheduled, wherein it would be more systematic and that commuters will follow a time schedule for each arrival. For instance, every 15 minute interval, buses scheduled for a specific time would be accounted for. In this case, commuters would all be accommodated because a systematic time schedule is produced. 10% said that roads should be added to supplement the number of vehicles plying the road. 10% said that discipline should be emphasized, another 10% for re-routing which would give alternative routes in case of heavy traffic. 10% said that the country should economically develop and 5% said that working hours should be changed so that cars will not leave at the same time for work. Having a synchronized time for leaving for office, would flood the vehicles in toll gates, stop lights. Changing the time slot for private workers and public workers would ease up the traffic flow of vehicles. A difference in the bundy clock for private and public employees would make the other worker leave earlier and the other an hour later. Through this, toll gates and intersections where there are traffic lights would not be as crowded.

From the private drivers, 25% also said that rules should be enforced; law enforcers should be committed in implementing traffic rules and regulations. 20% said that discipline should be maintained; 15% said that

working hours should be changed; 15% said that additional roads should be constructed; 5% favors economic development and 5% for scheduled bus arrivals.

25% of the taxi drivers said that rules should be enforced, 25% for a change in the working hours; 15% for the discipline of drivers; 15% for the implementation of a truck ban; 10% for the construction of more roads; and 10% for the investment in transportation, having a total of 100%.

From the jeepney drivers, 20% is to enforce traffic rules; 20% for the construction of more roads; 20% is to discipline the people involved in the traffic crisis; 15% for the decrease in the price of gas, another 15% for the implementation of truck bans. Through this implementation, large cargo trucks and delivery trucks would be prohibited during rush hours. Vehicles such as these tend to take so much space plus their speed is too slow, making it even worse. During peak hours, around 5-6 p.m. private cars and public transportation vehicles ply the road and consequently making the road like a market place. In addition, roads have not been sufficient for the vehicles, adding the trucks with their minimized speed would hamper the flow of vehicles on the road. 10% viewed for the investment in the mode of transportation. Of the public officials, 30% want more investment in the mode of transportation; 20% for the enforcement of rules; 20% for more roads; 20% for the emphasis in discipline and 10% for economic development.

These are the possible solutions given by the people who have been interviewed. The biggest percentage is the enforcement of rules which goes to show, that presently the majority of the law enforcers have taken

for granted their commitment in preserving the peace and enforcement of laws.

Discipline is an important factor in considering the upliftment of the crisis. Vehicles should follow traffic rules and regulations to secure safety and to establish a continuous flow on the road. Drivers, public and private, should practice defensive driving. Traffic aids directing traffic in Taft, said that jeepney drivers should follow traffic rules especially on loading and unloading signs. Jeepneys stopping at no loading/unloading signs tend to cause traffic on the road. Without discipline, drivers of public and private vehicles would disregard rules and regulations. Through this, it would promote to the continuous deterioration on the transportation crisis. Vehicles should practice yielding to the other vehicles. This situation arises during intersections and "Y" roads. Cars should give in to other vehicles to achieve a free flowing system on both sides. Vehicles experiencing the "Y" road should practice this movement. In this situations, discipline es exercised, because with discipline, the transportation crisis would have a large space for development, without it, chances for alleviating the transportation crisis is highly unimaginable.

The number of vehicles especially private utility vehicles have overpopulated the road. In addition, the roads have not been sufficient enough to accomodate the vehicles. The need for road construction should be forseen and should be accomplished. The production of cars should be directly proportional to the construction of new roads. Majority of the vehicles plying the roads are mostly private cars in which case, additional roads is

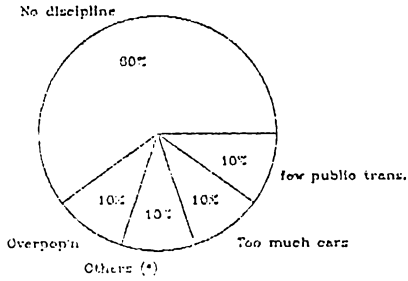
a necessity. For the crisis to subside, the availability of roads should accommodate the number of cars utilizing the road. Availability of space is a vital necessity so that it will not be congested.

The lack of public transportation is brought about through the ill-maintenance of vehicles. Prices of spare parts for buses, jeeps, taxis have increased making it unaffordable for the companies to acquire. This, plus the fact that the Manila area is so thickly populated, that the public transportation vehicles could not accommodate the influx of commuters.

The enforcement of rules which is the responsibility of policemen and traffic aids have been inadequate for the purpose. In the interview, policemen have been in the force for an average of 10-20 years of dedicated service. Although they refuse to reveal their names, they said the reasons on why they accept money through bribery is because their salaries are not enough to support a family. Some policemen have more than just one family to support. Accepting money from the law breakers is very common for them to live a happy life. Presently, their salaries cannot compensate for the mode of job they are in. Their lives are at risk everyday, and yet their salaries are not sufficient enough.

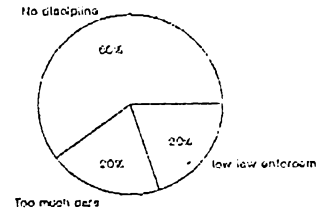
Taxi and private drivers observed that Jeepney drivers plying the route in Taft and Faura have hampered the fluidity of vehicles within the route due to their disregard for rules and regulations, such as the no loading and unloading signs. In effect, it disrupts the flow of traffic in the area. Law enforcers should be dedicated in the upliftment of rules and regulations to be able to promote discipline among public and private drivers.

Commuters

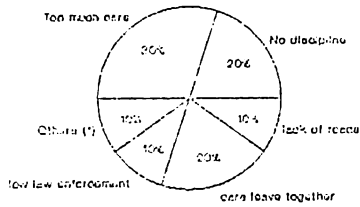


small streets

Jeepney Drivers

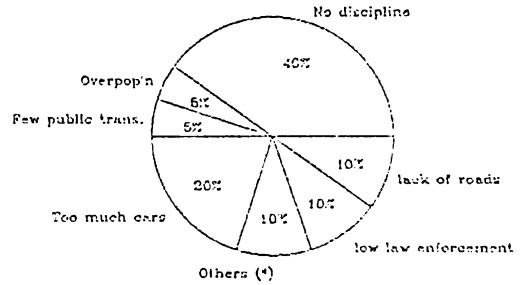


Taxi Drivers



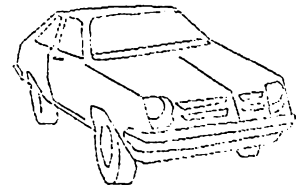
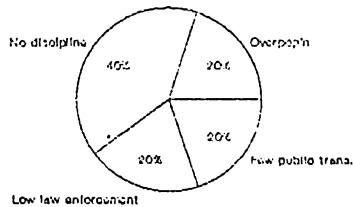
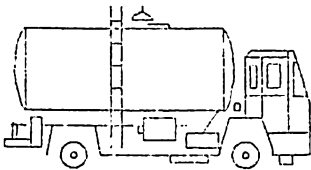
(*) small streets

Private Drivers



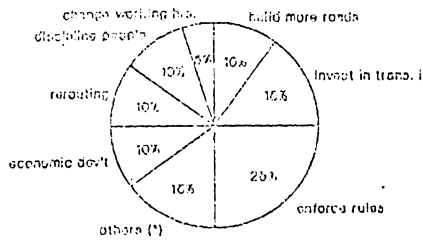
(*) damaged roads, lack of policemen

Officials



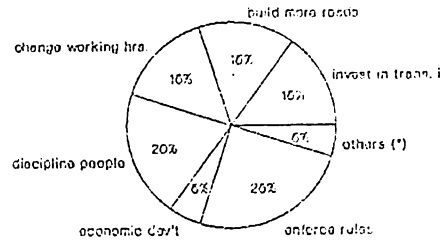
THE MAIN CAUSES OF TRAFFIC

Commuters



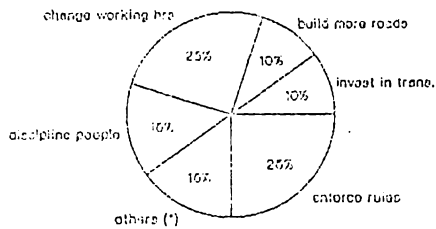
(*) include bus arrival
into public transportation
intermodal campaign

Private Drivers



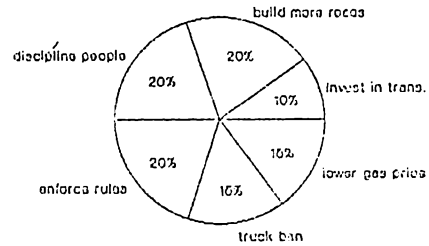
(*) include bus arrival

Taxi Drivers

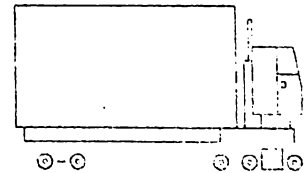
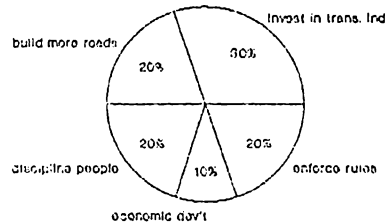
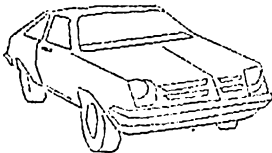


(*) truck ban

Jeepney Drivers



Officials



SOLUTIONS TO THE TRAFFIC CRISIS

CHAPTER IV
SUMMARY AND RECOMMENDATIONS

There have been numerous project proposals and finished programs in improving the transport system. The creation of the LRT was one of the most successful projects ever created in implementing a better and a more systematic mode of transportation.

The implementation of the Pasig Ferry system has also added to the upliftment of the crisis. The boats are utilized to transport passengers in areas such as Quiapo, San Juan and Marikina. Its main objective is to lessen the number of commuters on the road and thus decreases the rate of traffic.

In spite of the LRT and the Pasig Ferry system, the traffic congestion in the country especially in the Manila area, still remain at large. Highly congested streets such as Espana, Taft, Ermita and other streets in the Manila area have not seen the end of it. The number of vehicles plying the road is indirectly proportional to the availability of roads.

In the survey conducted, lack of discipline has been observed as the main factor of the transportation crisis. Secondly would be the enforcement of rules and regulations, and thirdly, would be the lack of roads. Solutions of these problems are seen to lead to the improvement of our transportation crisis.

Regarding the lack of roads which have made the vehicles move at snail's pace, the city of Manila, which is regarded as one of the most highly congested areas in the Metropolis, has few roads to accomodate the growth of vehicles. Some two-way roads are so narrow that cars find it

difficult time to pass through. Public jeeps have the tendency to unload and load passengers when the traffic light turns green. The wrong attitude of public drivers including law enforcers have contributed to the transportation crisis.

Traffic aids have remained inefficient and inconsistent regarding traffic regulations. The act of bribery are the common traits Filipinos share with policemen. Even a mere ten peso bill, a policeman could be bought. Discipline should be taken seriously in a developing society. The behavior of motorists have remained discourteous and undisciplined; i.e. the new policy regarding the yellow line, wherein-passenger buses utilize for it to be able to make more trips. Other vehicles are not permitted to penetrate within the yellow line. This new ruling would be a advantage for the commuter, and in effect, lessen the overcrowding in bus stops, and point of entry. The disadvantage of this policy, is that, the main road such as EDSA has been limited into a smaller path. In addition to this, the highest population of registered vehicles fall under private cars. Roads have been broken down which makes the vehicles highly congested. Definetely, the Metropolis need more and wider roads.

Practically speaking, discipline should be enforced by the traffic aids. In addition, if the rules are not followed, the penalty should be great, in this case, the probability for another rule to be violated would be less due to the heavy penalty the driver would account for. Policemen play a major role in implementing discipline. Sad to say, it is the policemen and other gov't officials who violate traffic rules. The penalty for such action should be doubled because they make the rules and

know the rules. While a mere driver experiences, notices and obeys the laws; thus penalty should be greater for law enforcers.

Another aspect is that of public transportation. China has been generous in donating more than a hundred Metro buses in the country. Hopefully, the number of public buses in the Manila area would accommodate the number of commuters. In which case, the necessity of more roads is greatly appreciated.

The city of Manila, which is the traditional seat of trade in commerce, remains the most populous urban center. In terms of spatial distribution of population, the most densely populated areas in Metro Manila are Navotas and Manila, which are both located within the periphery of the major national port of Manila. The Manila area is flooded with business establishments, which add to the congestion and traffic tie-ups. For instance, in Taft Avenue, the road can accommodate a maximum of 5 cars, to be able to move comfortably. With the inflow of public jeeps and buses, cargo trucks, it would even cut the space into three to two cars. Jeeps stop whenever there is a pedestrian or a commuter, which goes the same for buses, through this, it disrupts the flow of vehicles. These commuters come from one of the business establishments on the main streets of Taft.

Manila is one area which needs to be prioritized in constructing more alternative routes and roads. Green lights on the main streets should be prolonged, to mobilize trucks, buses, jeeps, taxis, and private owned cars plying the road.

Strict law enforcement, construction of more roads is greatly needed in the city of Manila. The Manila area is overpopulated. It's seemingly

impossible to alter, so we will just have to think of possible alternatives to minimize it of being a problem in the traffic congestion. The government should be able to fund the construction of roads in Manila and increase the salaries of law enforcers to ensure their committment in law enforcement and preserve the peace of the country.

Other Recommendations:

From Serafin Aquino Jr. (City and Regional Planner) P.D.I.

The Concept of the Quiapo-Cubao route.

To help lighten the rush hour load on Espana and EDSA ave., a continuous one-way byway (or bypass) consisting of parallel secondary or minor streets could be officially established starting from Quiapo all the way to Cubao. With this set-up, the smaller and more numerous cars, taxis and jeepneys will now have the choice of either staying on the major thoroughfare or taking the byway. This will help thin out traffic along the main route which, in turn, will enable the commuters to get home faster and allow the buses and jeepneys to make a profitable number of trips everyday. Trucks, buses, pushcarts, tricycles and horsedrawn carriages will not be permitted on the byways.

The proposed project would be a quick and low-investment undertaking because it would entail only minor improvements like the installation of a a) color-coded route signs, b) additional street name signs, c) adequate street lighting and d) traffic lights plus, of course, the improvement of street paving and drainage systems where necessary.

In effect, the proposed network of urban byways can a) reduce traffic congestion on our overburdened major thoroughfares; b) minimize environmental

pollution, which is already a serious problem; c) conserve our precious dollar reserves; d) render urban residents journey to work, school, etc. shorter, cheaper and less tiring and e) make the metropolis a safer, quieter and more healthful and pleasing human habitat.

The more traffic lanes produced, it would siphon off part of the peak hour traffic on the crowded thoroughfares, the faster the movement of people to and from the inner city during the rush hours can be executed; and the faster we move the commuters, the more beneficial it will be for all concerned.

Makati Business Club's Recommendations.

The Makati Business Club outlined an over all public transit and traffic management plan designed to solve the transport problem in the short and long run.

Among the businessmen's recommendations to government for immediate action are:

A. Better traffic management.

Traffic jams are largely due to poor overall traffic management. First, there should be stricter enforcement of traffic rules and regulations. Second, the Pook Batayan program must be reoriented to cover areas rather than intersections. Traffic flow is systematic and unclogging that individual intersections will not solve the entire problem. Third, street diggings by PLDT and MWSS must be strictly regulated and monitored so as not to obstruct traffic unduly. Street work should be conducted in the evenings or during non-rush hours.

B. More Buses.

With the total number of buses being operated by the Metro Manila

Bus Operators Association (MMBOA) today numbering less than one-half the number operated in 1985, fare structures and franchises must be reviewed to make public transport profitable for the operator and at the same time affordable to the commuter.

Cutting turnaround times of buses. Traffic jams increase the turnaround time of public buses and cut the number of roundtrips that a bus can take is increased from five to eight times a day, then passenger capacity would automatically increase by 60%. One way to speed up turnaround times is to experiment with a "reverse bus lane" along EDSA with buses running in the opposite direction as automobiles so as to assure that the so-called "bus lanes" do in fact remain free and clear for exclusive use by buses.

C. Promotion of a park-and-ride system.

The system will encourage people to park their cars in strategically-located parking lots and ride shuttle buses to work. Such a system allows a motorist to purchase coupons that will cover the cost of parking and allow them to ride for free all day long on special shuttle buses operating for this purpose.

D. Review of building codes.

Traffic is largely caused by a spillover of cars searching for parking space or from double parking in small side streets. The need for building codes for commercial and office space.

Due to the transportation crisis, several groups presented different alternatives on how the problem will be alleviated. Groups such as, the Makati Business Club and the City Regional Planner gave their own recommendations in improving traffic conditions in our country. These include improvement and expansion of roads, but such suggestions are not feasible at present. We all know that the Philippines is a 3rd World Country. Funds which would facilitate the necessity for more roads would be insufficient, and thus, we Filipinos would have to make do of what our country could afford. The present road system and the quantity of public and private vehicles are what the country could acquire for now.

Therefore, the question still arises, "Is it still possible to put an end to a crisis wherein several solutions remained ineffective for the past 10 years?" The answer would depend on the Filipino people. If they want to solve the crisis, they would have to acquire discipline and commitment. Laws will not be sufficient, if the authorities are not committed to enforce it; and the Filipino people are not disciplined enough to follow it. The practice of following rules and regulations is a must for our transportation problem to be upgraded.

Having acquired those vital factors, I believe our country would achieve a better transportation system, and this would be a step towards the building of a progressive nation.

APPENDICES

STATISTICS ON THE NO. OF BUSINESS ESTABLISHMENTS IN MANILA

Type of establishment

Wholesale Trade	23,065
Wholesale Trade of General Merchandise	1,663
Importers	371
Exporters	25,099
SubTOTAL	
Retail Trade	10,233
Retail Trade of General Merchandise	7,606
Sari-sari stores/bakeries	6,368
cigarettes	4,822
Groceries	327
Drugstores	69
Lumberyard	47
Rice	142
Fruits/eggs	
Types of establishment	214
General Repair Shops	2,076
Hardwares	1,086
Auto Supplies	108
Jewelry stores	33,098
SubTOTAL	
Banking and Finance	945
Banks and other financial corp.	915
Investments and Lending Inst.	1,860
SubTOTAL	
Insurance	131
Brokerage	166
Insurance agencies	297
SubTOTAL	
Real Estate	10,524
Leasers	576
Contractors	11,100
SubTOTAL	
Business services	75
Laboratories	67
Parking lots	188
Forwarder cargo services/Marine cargo services	844
Delivery vehicles	157
Contractoral recruitment agencies	1,331
SubTOTAL	

Recreational services	
Sports facilities	104
Rental stores/amusement and video machines	412
SubTOTAL	516
Personal services	
Bars,discohouses,restaurants, coffee shops, liquor bars, and other eateries and clubs	17,219
Hotels, motels, dormitories, studio shops, and beauty parlors	868 6,711
Types of establishment	
Security, special watchman, services, funeral parlors	158
Rental medical, and optical clinics	746
SubTOTAL	<u>25,702</u>
OVER ALL TOTAL	<u>99,003</u>

SAMPLE QUESTIONNAIRE

- I. Ano ang palagay mo ang dahilan ng problema sa transportation crisis?
- a. Kulang ba sa public transpo ang dahilan kaya nagsisiksikan ang mga pasahero sa bus at etc.?
- b. Kulang ba ang mga daanan para sa mga kotse at mga jeepney?
- c. Sinusundan ba ng mga nagmamaneho ng kotse at jeepney ang mga traffic rules at regulations, at kung hindi, isa ba ito sa mga dahilan kaya may krisis o problema sa transportasyon?
- d. Dapat bang baguhin ang mga office hours sa mga private at public offices? Bakit?
- e. Maraming bang nagsarang industriya ng mga jeepney, taxi at bus? Ano ang dahilan?
- f. May kaugnayan ba ang pagtaas ng presyo ng langis at ibang bagay sa krisis sa transportasyoh?
- II. Ano ang mga solusyon. na puwede gawin upang lutasin ang problema sa traffic?

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