TRAFFIC ORGANISATION IN PAKISTAN

By

M. SADIQ SWATI

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M.C.P. (Transportation Planning),

M.S. (Traffic Engineering),

Deputy Chief (T & C),

Planning Division, Islamabad

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The problem of safety on highways in Pakistan is very acute. According to the latest statistics available motor vehicle accidents killed 1411 people in Pakistan in 1969. Another 4248 were seriously injured. Pedestrains with 2028 casulties were the greatest sufferers. The total number of accidents during that year were 4609, averaging about 13 accidents per day. This does not include a vast number of accidents which took place on the highways resulting in varying degrees of personal injuries and property losses, but were never reported. On a comparable scale, the casualty rate in West Pakistan is 9 times higher than the United States.

The rate of accidents in Pakistan over the years has steadily increased. All available evidence indicates that the accident rate in the future is bound to increase sharply. As a confirmation of it, the latest statistics available for Punjab indicate that since 1973 a total of 3763 person have lost their lives & another 7841 were injured in road accidents. The property damage during the period is estimated at Rs. 500 million.

In this country the time has long passed when it became abundantly clear that the traffic situation was deteriorating rapidly. Even though the problem is enormous, it is not impossible to solve. As a matter of fact, it is the indifference and pathetic attitude of all those concerned rather than the physical size of the problem which is causing deep concern in the planning circles in this country. The problem, no mattar how big, can be tackled provided those directy concerned with it are aware of its existence and are competent and determined to eradicate it.

State of the Art.

After decades of concerted research in the United States and other western countries, it has been established that the key to the traffic problems lies in a simple principle known as Three E's namely Engineering, Education and Enforcement.

Engineering.

By engineering is meant physical facilities adequate enough to handle the traffic demand. Very broadly it includes roads with adequate width to accommodate the traffic; standard traffic control devices, namely signs, signals and marking to guide the motorist along the route with speed and safety ; and removal of conflict points by providing grade separation structures.

It is obvious that the road facilities existing in this country are outmoded. Inadequate sight-distances, narrow widths, high grades, absence of access control and grade separation structures are the factors contributing to high tolls on our roads.

The problem of safety is further complicated by the absence of facilities to segregate fast and slow moving traffic. The speed differential created by the presence of animal drawn vehicles in the traffic stream is undoubtedly one of the most dangerous situations faced by the drivers on our highways.

Another important factor contributing to higher accident rate is the shortage of transport. This is demonstrated by the large number of people involved in traffic accidents while travelling by public transport. The buses are usually crowded. The majority of the buses, being privately owned, engage in dragracing for the sake of maximum profit, thus endangering the lives of the passengers.

Education.

It is of utmost importance that those who are privileged to drive a vehicle should thoroughly know the rules of the road. They should be well aware of their rights and limitations to avoid creating a hazardous situation on the roads, endangering their own as well as other people's lives.

As far as education is concerned, it wonid be safe to assume, without the fear of contradiction, that the majority of the drivers are ignorant of modern traffic safety rules. Their knowledge of traffic safety laws is limited to elementary hand signals used by traffic constables at street intersections.

In a period of more than 4 years, 99.9 % of the locally licensed drivers interviewed by the author had no concept of such basic thing as Right-of-Way. 99 % admitted that they derived their knowledge directly from the person who taught them how to drive a vehicle which primarily consisted of lesson in stearing, stopping and starting the vehicle. Nobody remembered seeing the Highway code.

The Traffic Police Foot Constables, and even some of the officers were found to be totally ignorant of the Traffic Safety Rules.

Traffic Enforcement.

Enforcement holds the pivital position in the whole gamut of Traffic Planning. Without proper and effective enforcement even the best and most modern highway facilities would be helpless to cope with the traffic problems.

A modern traffic police officer has varied responsibilities. He has to be adopt in the art of providing first-aid to the injured in an accident ; should be able to investigate and analyse an accident methodically and systematically ; and should be skilful mechanic to provide necessary aid to stranded drivers. He has to be firm, courteous and pleasant. Above all, he should command respect from the road users, which entirely depends on how well versed he is with his job.

Unfortunately traffic police in this country are in every respect one of the most ill-equipped enforcement agency in the world. Neither are they imparted sufficient training in the art of traffic control nor do they have adequate powers to make speedy enforcement. Even nominal training in the art of traffic control which traffic foot-constable used to reveive in the past, is at present frequently dispensed with. The majority of the traffic constables are unaware of the traffic laws and regulations. As a result traffic offences occur under their very-noses without their being aware of it. The pathetic attitude of the public towards today's traffic constable stems from the fact that the poor fellow is not properly groomed for his job and in many cases he is unsure of himself. The result of such past policies is self evident.

Previously a traffic foot constable was authorized to chalan the traffic offender but under Traffic Ordinance 1965 these powers have been withdrawn. Now the traffic foot-constables are mainly engaged in watching traffic, at intersections, go by. The motorists consider him as spectators and treat him with contempt. As a result he is liable to be intimidated by uppish drivers, who are well aware of his lack of authority, familarity with rules and regulation and general helplessness on his part to cope with the situation.

Another serious disadvantage suffered by the traffic constable is that he is not properly equiped to do the job. In majority of the cases he is immobile and can not persue and apprehend the offender who decides not to stop.

Fundamental Problem.

Analysing the three E's name'y Engineering, Education and Enforcement, in the context of conditions prevailing in the country, and to determine the root cause of the accidents, traffic chaos and other related problems, it is obvious that the engineering facilites though not par excellence, are adequate for the existing traffic density on various routes and cannot be held responsible for the majority of the accidents. This is further borne out by the fact that even on the routes such as Karachi-Hyderabad super highway, the accident rate has not decreased. Serious engineering deficiencies however exist in terms of signs and signal to guide the motorists with safety, but again very few drivers pay any heed to them even where these do exist. Hence lack of proper signs and signals canot be blamed for a great majority of accidents either.

This leads us to the other two factors, namely Education and Enforcement. Since road users, enforcement staff and general public alike are ignorant of the traffic safety rules, therefore, complete confusion and chaos is the natural consequence. Imagine the outcome of a game where players and the rafree both do not know or observe the rules. It is therefore, obvious that to improve the road safety our best chance lies in alleviating the difficulties in the two areas namely Education and Enforcement. However this does not in any way imply that road improvement are not reguired for safer and comfortable operation.

Proposed Measures.

The author is well-aware of the fact that building of physical facilities, driver education and creation of an effective enfrcement agency shall require considerable capital which is beyond the resources available at present, How ver. a scheme of things can be evolved in which at least a beginning can be made to put the traffic organization on a sound basis.

The proposed concept is neither a novelty nor is its validity limited to any geographical area of the world. tt has been evolved over the years and has stood the test of time.

Some of the measures that need to be implemented without any further delay are as follows :-

1. **Driver Education:**

Driver education in this country is one of the most neglected fields. No

systematic programme for driver education exists today. As yet, there is no realization of the fact that in order to cope with today's complex traffic problems, a driver has to h.ve much more than simple ability to drive a vehicle. The traffic scene on our streets today makes a very dismal pictu e and so many unnecessary accidents occur and innumberable narrow escapes take place every hour pri.narily because of ignorance of traffic safety laws and regulations on the part of the majority of the drivers. Similarly a lot of traffic safety rules are violated daily by a large number of road users un-knowingly and by misinterpretation of the rules.

One of the critical areas of highway safety is constant and continued driver education. The fast and rapid rate of technological developments in the field of highway transportation brings numerous new problems in their wake. Also, some of the problems are so complex that it is difficult for an average driver to comprehend them on his own. Even in the countries with the highest literacy level, this point is brought out d.ily and great emphasis are placed on driver education on continuing basis. Sporadic traffic safety drives do not fulfill the need.

There are three fundamental problems of driver education namely :-

(*a*) Education of the drivers already possessing valid driving licenses.

(*b*) Education of the driver to be licensed in future.

(*c*) Traffic safety education of the general public.

The most pressing problems, as far this country is concerned. today are the a & c. The following measures are proposed to alleviate the situation :-

(*a*) **Education of the already licensed drivers:**

The following measures have to be adopted to achieve the goal :-

(*i*) The first thing that has to be done is to update the 'Highway Code, published by Ministry of Communications in June, 1965. The code has become out moded and does not cover the entire range of Highway Safety regulations. The code should also be translated in Urdu. This should be done by experts in the field of traffic engineering.

(*ii*) The cover for the Highway Code should be designed in such a way that every licensed driver should have his personalized copy.

(*iii*) The Highway Code should then be handed over to a reputable publishing firm for printing and sale through their normal channels at Rs. 5/- per copy.

(*iv*) The money thus earned (sale price - printing and sale/service charges) should be placed at the disposal of the Traffic authoities for installing needed traffic signs, signals and other safety measures.

(*v*) An executive order should be issued, requiring every licensed driver to own a personal copy of the code. The Post Office Department should be directed not to renew the license of any driver not possessing personal copy.

(*vi*) The most important of Highway Safety Rules should be prepared in a 10″ × 16″ poster form and displayed in two prominent place in each public transport. The poster should be aimed at the travelling public, informing them of their rights and obligations. This would help policing of the rash and negligent drivers by the travelling public and would discourage the flagrant violation of the rules by the public carriers which is a frequent occurance today.

(B) Education of the future driver.

Perhaps the most effective way of driver education is to teach high school students various safety measures and **inculcate** in them the spirit to faithfully follow those rules. This method has proved to be a most valuable tool in the hands of transportation safety planners and traffic engineers. Also properly equipped driving schools should be opened all over the country and every future professional driver (chaufer) should be required to undergo training from one of these driving schools as a pre-requisite for issuing a driving licence.

(c) **Traffic Safety Education of the Public.**

The general public must be made aware of the rules of the roads so that they should know their rights and limitation and avoid creating hazardous situations inadvertantly. The following measures should be adopted :-

(*i*) The daily newspapers, Urdu as well as English, should be persuaded to publish one Traffic Safety rule from the Highway Code each day as a public service and without charge.

(*ii*) T. V. should project Traffic Safety slogans such as "Drive Carefully". "Watch out for the other Guy", "Drive Defensively", "Heed Safety Rules" and "Observe driving courtesy" as public service ads.

(*iii*) The programme announcers and disk jockeys of Radio Pakistan should be asked to drop safety hints in between the programmes.

(*iv*) Traffic Safety documentaries should be telecast weekly from T. V. Station and also shown in the cinema houses.

The proposal beside involing no extra financial burden shall also inculcate the spirit of self policing in the road users once they are aware of their right and obligations This is essential since it is not possible for the traffice police to monitor the movement of each vehicle. Also in case of mishap. every driver would know who was at fault and not decide the issue with their fists as is being done at present.

2. ENFORCEMENT

To correct the situation the following measures should be adopted :-

(*i*) The Traffic duties should be entrusted to only these foot constables with education at least upto Matriculation. The task of traffic operation and control is too complex for an uneducated or Semi-literate person to comprehend. There are a number of foot constable in the regular Police Force with the requisite qualification whose services can be secured by transfer. Those without the desired qualification, who have entered the traffic police organization on various grounds, be sent to the regular Police Force.

(*ii*) The powers of the foot constables to issue tickets for traffic violations should be restored forthwith.

(*iii*) Each traffic constable, seargent, etc. should be supplied with his personal copy of the Highway Code.

(*iv*) Every foot constable on roving duty should be provided with a motor cycle for speedy and prompt apprehention of the traffic offenders.

(*v*) Every traffic cop should be properly trained for the job and the training period should be minimum of six months.

(*vi*) Traffic Police should de-emphasise the checking of papers etc. and concentrate on moving violations such as failure to yeild. R.O..W, dangerous and reckless driving etc.

3. LICENSING PROCEDURES :

The existing licensing procedures are very archiac and outmoded. At the top of this, the task of issuing of the licenses and administring the driving tests are frequently entrusted to the people who are themselves not able to drive. I do not want to go into the details of malpractices in issuing driving licenses and conditions prevailing in the Traffic Police departments, but I do not believe there could be any two opinions on the issue.

To check the growing menance of semi skilled drivers on our procedure and bring standards to an acceptable level.

The following suggestions are offered :-

(*i*) Before a permanent driving license could be issued the applicant should be given a test comprising of 100 short answer type questions covering the entire range of safe driving practices and rules and regulations as given in Highway Code. The pass level should be 95%.

(*ii*) Those qualifying the written test should be given a driving test by somebody who is a competent driver.

(*iii*) Apart from written and road test. a parallel parking test should also be given. This requirement is of c itical importance if we have to get rid of artificial congestion caused by improper parking at various public places.

4. STANDARD PENALTIES FOR TRAFFIC VIOLATIONS

Another very serious problem with the existing system is the lack of streamlined procedure to adjudicate the traffic violations. The process is archaic and cumbersome. It does not recognize the fact that the majority of the violation are not criminal acts and hence do not need to follow criminal procedure of justice. 90% of the violations are minor infractions of the law. All the developed countries of the world recognize the difference and have devised standard penalties for most of the traff c violations. The fine for these infractions can be paid witnout appearing before a court. The court appearance is necessary only for major offences such as invovlement in an accident, leaving the scene of an accident, and for those who want to plead "Not Guilty", and habitual offenders.

Relaxing the reguirement of court appearance for minor traffic violations would ensure prompt and proper disposal of the serious cases more judiciously.

A list of common traffic violations and their standard panalties is given below :

S. No.	Violation	Penalty
	Moving Violation	
1.	Speed violation less then 20 mph above the speed limits	Rs. 25 00
2.	Improper turn (turning from wrong lane)	Rs. 15.00
3.	Improper turn (without proper signal)	Rs. 10 00
4.	Improper U-turn	Rs. 15 00
5.	Prohibited turn	Rs. 20.00
6.	Disobeying Stop sign	Rs. 25 00
7.	Disobeying Red Signal	Rs. 40.00
8.	Disobeying Yield sign	Rs. 20.00
9.	**Improper overtaking.**	
	(*a*) At intersection	Rs. 25.00
	(*b*) At curve	Rs. 50 00
	(*c*) At hill.	Rs 40 00
	(*d*) At "No passing" zone	Rs. 50 00
	(*e*) Cutting in after overtaking	Rs. 25 00
	(*f*) Passing on the left (except when vehicle in front is making right turn).	Rs. 50 00
10.	Improper lane usage (straddling).	Rs. 25 00
11	Failure to yield the Right-of-Way	Rs. 50 00
12.	Following too closely	Rs. 25.00
13.	Reckless driving	Rs 50.00
14.	Careless driving	Rs. 30.00
15.	Tooting horn silense Zone	Rs. 5 00
	Parking Violations :	
1.	More than one foot from the curb	Rs. 10 00
2.	Parking on a sidewalk	Rs 20 00
3.	Less than one foot from another car	Rs 0 00
4.	Parking on a crosswalk	Rs. 20.00

S. No.	Violation	Penalty
5.	Less than 10 ft. from fire hydrant	Rs. 10.00
6.	Less than 30 ft. from a Stop sign	Rs. 15.00
7.	Less than 25 ft. from intersection	Rs. 20.00
8.	Parking in a No-Parking Zone	Rs. 30.00
9.	Overtime parking	
	a. At the meter	Rs. 5.00
	b. Restricted parking area	Rs. 10.00

The court appearance should be required only in the following cases :-

1. More than two moving violations in twelve months period.
2. Drunken driving.
3. Accident involvement.
4. Leaving the scene of accident.
5. Pleading not guilty.
6. Driving with revoked licence.
7. Speeding more than 20 mph over speed limits.
8. Ignoring the traffic officer's signal to stop.

The traffic violation ticket should be issued in triplicate. One copy should be given to the offender, second copy should be sent to the fine collection agency and third copy retained for record.

Since the fine collecting agency is usually the same where the road user pays his license renewal fee and road tax, they should be instructed not to renew the licence & registration or accept token tax if there is outstanding due against him.

Also every serious violation of law should be recorded on the license of the offender and the license of the habitual offenders should be revoked.

5. Updating Traffic Rules And Regulation :

As has been mentioned earlier that rapid technological development are taking place in the art of traffic control and operation. Vehicle dynamics are changing, social and cultural patterns of vehicular travel are changing and new discoveries are taking place in all traffic related fields which have to be made use of. The laws and regulations govering the traffic have to be updated on a continuing basis. The following are immediately required.

(*a*) Updating Highway Code :

The existing traffic rules were framed in 1939. Over the years they have been modified and amended (the latest revision in 1965) but stiil they do not cover the full spectrum of transportation problems. The art of transportation planning and traffic control has come a long way since 1939. The modern day transportation and traffic problems are too complex and intricate to be solved by amendment to outmoded and archaic methods of 1939.

The existing rules are limited only to the basics and do not cover the entire range of Traffic Safety Regulation. Consequently they do not provide adequate protection to the drivers under all conditions. It is therefore essential that these laws should be immediately updated by an expert in the field of traffic engineering.

(*b*) Manual of Uniform Traffic Control Devices :

At present, no such manual exists to govern the installing of traffic control devices. Consequently, these devices are erected in a very haphazard way, without regard to the need. The erection/installation of these devices is governed by individual whims. As a result they often create more problems than they solve. To overcome this difficulty, it is suggested that a manual should be prepared to establish minimum and maximum warrants for such traffic control devices as signs (regulatory, warning, guidance, etc.), signals, makings, channelization (exclusive turning lanes, islands, etc.) and other highway signs essential for guiding the mortorists with speed and safety under all conditions.

6. Vehicle Registration And TAX Collection System :

The existing arrangements of collection of road taxes, licence fees etc. has proved to be a failure and must be scrapped. There is no coordination between registration and tax collection agencies. No reliable and uptodate data are available regarding road statistics, since 1969, the time the job was entrursted to the Post Offices. Evasion of road taxes is wide spread. Also the existing registration laws do not make any provision for scrapping the vehicles once registered, even if the vehicles once registered, is junked. As a result the number of vehicles actually on road and number of vehicles registered are not the same, which creates confusion.

The following measures are proposed :—

(*i*) The task of collecting road taxes, licence fees etc. should be handed over to a bank with computer facilities.

(*ii*) The bank should be required to submit quarterly return regarding number of vehicles paying taxes.

(*iii*) To eliminate the evasion of tax, a computer card should be prepared for each vehilce in the country. The bank should keep tabs on each vehicle whether or not paying taxes and reason thereof. If the vehicle is scrapped the information should be duly recorded with the help of the computer. Similar tabs can be kept on traffic offenders who have not paid their fines or have been convicted of serious traffic offences.

7. Accident Reporting And Accident Record :

The accident reporting and record keeping leaves much to be desired. The accident reporting form used at present does not give all the information regarding the accident which is so vital for the purpose of proper analysis of the causes of the accidents and the remedial measures needed to alleviate the problem. Also, no systematic record of the accidents is kept.

In order to enable the engineer to determine what improvements should be made to alleviate the accident problem at any given location, it is essential that he be furnished with a complete record of accident experience at that location. The record should be precise, unambiguous, and encompassing all aspects of the problem.

Accident is defined as an error in driver-vehicle-roadway system and it must be recognized that different types of accidents are caused due to different factors. It is usually possible to identify the cause of accidents at any given location by the predominent type of accidents occuring at that location, namely, rear-end ; side-swipes ; head-on ; night-time ; bad-weather, etc. For each of these types of accidents, separate remedial measures are required. For instance, predominance of rear-end accidents will indicate slippery pavement whereby the drivers have difficulty stopping in the time. Side-swipe accidents will indicate ambiguous traffic control devices, causing confusion among the drivers regarding right-of-way Head-on collisions signify lack of adequate sight distances at the location. Predominance of night-time accidents at the location will indicate serious problems with night time visibility. Bad-weather accidents can result due to a road pavement which becomes dangerously slippery when wet or it may be due to inadequate signs for inclement weather. Similarly, there are numerous other types of accidents which occur due to a variety of reasons. The job of the accidents analyst

therefore is to relate the accidents experience at any location to one or more causes. The state of the art permit such treatments The tools normally employed are, Accident Spote maps, Condition Diagrams and Collision Diagrams etc.

In view of the above, it is imperative that an accidents report form must be devised which will give all the necessary and relavant information in clear and precise terms. Also, the record of the accidents should be kept properly.

8. Reducing The Licencing Of Horse-Drawn Carriages :

Perhaps the greatest safety problem facing the developing countries today is the lack of segregation of slow and fast moving traffic. It has been established that the speed differential resulting from the presence of slower moving traffic in a traffic stream has the greatest potential for hazard. It is in view of this recognition, that in developed countries of the West, it is now customary to post minimum speed limits on all important roads. It is as much illegal to drive below the posted minimum speed limit as it is to exceed the maximum posted limit.

The flow characteristics of the two means of locomotion, namely horse-drawn carriages and automobiles, are so different that it is not possible to combine them with harmony. The only satisfactory solution available at present is to segregate the two modes of travel. Unfortunately, our financial resources do not allow building of separate facilities for slow moving vehicles. Consequently, the only alternative availables is to gradually eliminate the horse-drawn carriages from our arterial and other important roads.

10% of the registered horse-drawn carriages should be mandatorily eliminated every year. Thus it will take 35 years to completely eliminate the last of the horse-drawn carriages but in seven short years the number of horse driven carriages will be reduced to 50% of the existing number.

9. Organizational Reforms :

To implement the proposed measures it is suggested that a traffic organization at local (municipal), regional (district), and provincial levels should be created in each province.

(*i*) Municipal Traffic Engineer :

At the local level each municipal committee of greater than 100,000 population in the country should be asked to hire a qualified traffic engineer or arrange to train one of their engineers for supervising modern traffic control and operation within the urban area. The local governments should be required to regulate

traffic flow, parking etc. The municipal government should be empowered to frame legislation to back the Zoning regulations establishing no-parking zones, one-way streets, loading and unloading zones and closure of certain streets to automobilies in general or for certain types of vehicles. The city and municipal government should be empowered to impose and realize the fines for various traffic violations committed within the city limits.

(*ii*) District Traffic Engineer :

At the district level, a qualified traffic engineer should be posted in the office of S.S.P. and entrusted with the job of planning and installing traffic control devices on the roads outside the jurisdiction of municipal corporatlons/ committees and investigation of accidents and their analysis. He should work closely with the District Traffic administration.

(*iii*) Provincial Organization :

The provincial level agency should be entrusted with the job of policy making. Its responsibilities shoud include drafting suitable legislation for effective traffic police training programmes for the entire province ; modernizing and simplifying the traffic code, licensing regulations, traffic fine collection methods and organizing Traffic Safety education for the general public through the help of the media, (radio television and newspapers) etc.

Conclusion :

It is felt that the problem of traffic safety in the past has not received the kind of attention deserved. The majority of the past efforts in this regard were not only inedquate, but they were also misdirected. No proper framework was created to cope with the problem on a systematic basis. Also, the methods used were archaic, whimsical and short sighted.

It seems that the problem of traffic safety on our roads and highways has already reached crises proportions. Any further delay in initiating the programmes based on modern scientific principles, will have disastrous consequences. The time is running out rapidly.

It is therefore, proposed that prompt measures should be taken to avert the danger before it gets out of hand. The proposed measures if adopted can help organize the traffic in this country on scientific basis and keep alleviate the problem of Safety on our streets and highway at a very little cost.