

Review Article

# A Review of Role of Traffic Culture in Air Pollution Reduction in Metropolis of Developing Countries

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## A B S T R A C T

Nowadays, environmental problems, especially air pollution issues, are one of the major problems in the metropolis of the world, which its side dimensions and effects are increasing day by day. According to statistics and Information over 30% of the world's energy consumption is allocated to the transport sector, it is not, therefore, unthinkable that to consider motor vehicles as one of the main sources of air pollution. Gases from the combustion of vehicles' fuel are the most important air pollutants. Therefore, the first step in the process of reducing air pollution is to reduce vehicle traffic and also fuel consumption reduction per vehicle navigation.

To achieve these goals, various traffic solutions have been proposed. These include the use of traffic culture making tools to reduce and control air pollution.

In this paper, the effects of the cultural context in traffic and transportation sector are studied, especially the affections related on the choice of transport mode used in urban trips to reduce air pollution, it is noticeable that using appropriate educational methods and promoting the cultural levels of society by using various tools can greatly reduce air pollutants, especially in metropolitan areas.

**Keywords:** Air Pollution, Traffic Culture, Motor Vehicles, Fuel Consumption, Environment

## Introduction

There are different tastes and perspectives in defining culture, everyone has defined it according to his subject and goals and attitudes. In a simple expression, culture can be described as "a set of customs, beliefs, and traditions of a community," which is accepted as common Principles by most people in that community.<sup>3</sup>

According to another definition, "culture is the sum of social life, from technical infrastructures and institutional

organizations to the forms and aspects of psychological life expression and all, which are regarded as a value order and give the group some human quality and excellence. This term is used when used for humans referring to the extent of education or attention to the cultivation of thoughts and intellectual activity.

Traffic behaviour as part of the general culture expresses the extent of the majority of people's compliance or non-compliance of a community to traffic laws, traffic norms,

and criteria necessary for the movement of persons and vehicles that govern the community.

One of the important features of elements of public culture, including traffic behaviour, is that any belief or behaviour requires a long time to be accepted as a cultural principle.

Removing a cultural element will also require a long time and a lot of preparation and procurement. If all the possibilities and planning in an ordered society are focused on cultural affairs (in its general sense), political, social, economic, issues also under the influence the culture area coordinate itself with community needs, And neglecting the cultural and underlying issues of society is like building a home on a loose foundation that can be torn down with the least breeze.<sup>4</sup>

In general, traffic culture problems as part of public culture problems in the metropolitan cities of developing countries can be examined at three different levels, including micro-level, mid-level, and macro levels. Especially in metropolises in micro-level problems become related to inappropriate behaviours due to malformations and violations at the city level.

Mid-level problems can be too due to the weaknesses of organizations and urban management institutions and macro-level problems are related to the structures and developments that have caused traffic culture problems.

The discussion of the problems of traffic culture and culture-making can be studied in another approach. Thus, the issue of culturalization by the institutions and organizations associated with urban management should be divided into two areas:

- Reforming and changing attitudes and perception toward traffic behaviour
- Reforming the general traffic culture

Urban management and its role in Promoting traffic culture considering the increasing growth of the urban population is an important factor for sustainable and desirable urban development.

### Statement of Problem

In most cities, and especially in metropolises of developing countries, one of the causes of the problems at all levels can be found in the management and way of the distribution of facilities and funds, which its negative impact is not less than the problems caused by lack of capital or urban facilities and services.<sup>5</sup>

Urban organization management i.e. municipalities and traffic organization and its role in coordinating more and more of different entities are of important topics that cover various dimensions of traffic culture issue. To make different decisions, different workloads, and viewpoints,

sometimes opposed to institutions and organizations related to urban management can lead to the loss of opportunities, the efficiency of urban programs, and the inadequate management of financial and human resources. In this regard, it is important to consider the importance of urban management organizations matter and appropriate policy making from different dimensions. Appropriate policies codification and planning to promote a traffic culture in urban movements, first of all require careful identification of the effective components.

To understand these components one should gain some insight into some of the concepts as well as the existing conditions through careful examination, studies, observations, etc.

An adequate understanding of the influencing institutions on traffic culture as well as its place in urban management needs to be explored and informed about the current urban management in these metropolitan areas, which has been adequately addressed in this article. After reviewing the situation, the point to note is the need for urban management organisations in these cities in order to save time, manpower, and cost in various affairs including traffic civilization and culture-making. Given the growing trend of optimizing urban management at the national level, it is hoped that the process of realizing urban organization management will proceed more rapidly with the preparation of appropriate platforms.

Nowadays, environmental problems, especially air pollution issues, are one of the major problems in the Metropolis of the world, which its dimensions and side effects are increasing day by day. According to statistical data and information over 30% of the world's energy consumption is allocated to the transport sector, it is, therefore, obvious that motor vehicles are one of the main sources of air pollution. The combustion gases of vehicles are the most important air pollutants.<sup>6</sup>

Therefore, the first step in the process of reducing air pollution is to reduce vehicle traffic and also fuel consumption per automotive navigation or Scrolling.

What is important is that vehicles should be subject and bound to technical tests and consideration of the superior type that must be done for environmental protection, and the management of travel demand should be another important issue, which reduces traffic and air pollution consequently. 4.5% of pollution is caused by the exhaust of passenger cars, which is several times more than the depreciation of passenger vehicles. Therefore, it can be concluded that the traffic level of cars should be reduced. The lower the traffic, the less pollution so there should be effort should be made to expand public transport and take serious traffic management. So public transport needs to

be expanded and traffic management should be taken into consideration seriously.

Therefore, given the aforesaid matters, based on objective and case-based observation-study of some metropolises of developing countries, the question is whether traffic culture has an impact on reducing the environmental pollution.

### **Importance and Necessity of Study**

Culture making as a missing link in people-centred partnerships, especially in environmental issues, is a necessary context for the realization of clean slogans, and NGOs play an important role in this regard.<sup>7</sup>

Creating and reinforcing certain norms in the form of citizenship culture, such as reducing unnecessary traffic and intra-city traffic loads, separating and collecting household waste, promoting public sport and walking, and preventing cars pollution, workshops, and industries, all play a crucial role in reducing pollution and has detrimental environmental impacts in cities.

Naming someday as clean air day without a private vehicle as a good opportunity for people to culture and culture-making with service providers institutions 'cooperation and environmental culture trustee alongside NGOs will be a base to move towards a clean environment and air-free of any anomalies and pollution.

### **Culture making regarding to Environment Protection is Vital Necessity**

The importance of protecting the living environment and optimizing energy consumption can be explained by holding more tangible in the community by conducting conferences, seminars, workshops, training, and cultural programs.

Public efforts and participation of the people and authorities in reducing the pollution and the harmful effects of and environmental pollutants caused by transportation and traffic are not possible only with the motto and talk but requires serious determination in this regard, and the public support and participation in the efficient arm of public service institutions and organizations such as the municipality, especially in environmental matters.

Municipalities move and act in the form of cultural, sports, and public relations units by establishing and creating close links and supporting NGOs, and public awareness and build parks and cultural centers throughout the city to enhance urban culture to encounter and deal with environmental and social damage.

Pavement or sidewalk contraction instead of avenues in downtown is a good opportunity to promote the culture of walking and avoiding the overuse of vehicles in the streets, causes for preventing the increase of air pollution to promote the culture of healthy living in urban communities.

To achieve these goals, various traffic solutions have been proposed. These include the use of traffic culture-making tools to reduce and control air pollution. In this paper, the effects of the cultural context in the traffic and transportation sector, especially on the choice of transport mode used in urban trips to reduce air pollution, are studied.

### **Theoretical Basis of the Study**

Traffic process control mode or method has been one of the most important traffic parameters in traffic management. Using traffic signals and lights at intersections is one of the ways to control the traffic process. By making changes to traffic signals and lights the traffic flow in the network must be controlled in such a way that the traffic is optimized from an energy point of view.

If in an arterial route or traffic net the signals working together concordantly, the energy consumption will be significantly reduced. With the proper timing of the signals lights, travel time, the number of stops and latency in the network will decrease and the traffic flow and process rate will increase.<sup>8</sup>

### **Effect of Evaluation of Different Strategies for Signal Crossings Control on Pollutant Emission Rate**

Following the consequences of human activities in the environment and the emergence of concepts such as sustainable development which means to conserve and preserve resources for the next generation, the need to pay attention to environmental issues has become of great importance.

Among the factors affecting environmental crises, especially air pollution, traffic and attention to it are important, that in this regard the developing countries, are facing the problem of traffic congestion.

The need to address the traffic that is a major driver of greenhouse gas emissions, and its management by raising the level of knowledge and awareness and transferring it to the next generation can play an important role in institutionalizing environmental values.

The main purpose of this study is to examine the sociological role of traffic in an environmental crisis, especially air pollution in the light of sustainable development. Therefore, this study has attempted to address this issue in societies with a sociological perspective and to rely on the analytical-documentary approach in metropolitan cities of developing countries which accounted for 46% of the pollution caused by vehicles.

Some of the strategies to reduce traffic pollution are traffic management, training, and participation, or involvement of people in the form of non-governmental groups.<sup>9</sup>

### **Effect of Transportation on Urban Environment**

To create a complete, orderly, extensive, and efficient transport system is one of the most important needs for developed and developing countries. Today there are economically, politically, culturally growing countries that enjoy a complete system. But as we know, any development, especially development in the transportation industry, has a number of important characteristics and specifications, along with the negative features of such development, so that our development can be sustained. In addition, the negative features of such development must also be taken into account so that our development can be sustained.

Transportation has many different effects on the environment such as air pollution and noise pollution caused by road traffic. While other effects are emerging, such as oil pollution from maritime transport and the reduction of resources and discharges of waste into the atmosphere caused by energy consumption.

In addition to the above, raw materials of natural resources and all onshore and inland water resources are used for the production of vehicles, road and building construction in airports and railways. There are also indirect environmental and social adverse effects resulting from the expansion of roads to remote areas and access possibility to these areas.<sup>12</sup>

The environmental adverse effects of each mode of transportation can be classified into a broader area based on the origin of the effects of the infrastructure and operations of the fleet of vehicles and the removal of its use cases. Although improvements in transportation make it easier to move around physically, many of the environmental costs of transport are ignored.

The overall environmental impacts of transportation include:

- Effect on natural resources
- Effect on urban air quality
- Other effects on the urban environment such as air pollution, noise pollution, and groundwater pollution, and generation of waste products due to the disposal of depreciated and worn-out vehicles which has the problem of mass production of solid wastes.
- **Air pollution:** Air pollution is the result of the release of fossil fuels from motor vehicles into the air, and the concentration and mixing of these pollutants depend on the speed, acceleration, or working vehicles in a static and non-moving mode.

Contaminants that cause urban air pollution include:

- **Carbon monoxide:** This gas is also toxic and poisonous at low concentrations and can cause nausea, headaches, and dizziness.
- Nitrogen oxides
- Hydrocarbons
- Ozone

Suspended particles include dust particles. Today, management plans to control and reduce air pollution are one of the most important solutions, and this will not be possible except by having a reliable and accurate source of ambient air information. One of the most important sources for providing the above information is air pollution stations.

Of course, in the construction of air pollution measuring stations, several parameters must be taken into account, including:

- Distance from the street is more than 20 meters
- Distance from the nearest tree is more than 20 meters
- The distance from pollution sources such as factories and chimneys be more than 20 meters
- The distance from the hindrances must be twice the height of the obstacle
- Distance from ground level must be 3–15 meters

Ways to deal with air pollution caused by urban transport:

- Use unleaded petrol
- Use gas-powered motor vehicles
- Given the importance of urban green space development (planting trees and plants in the urban area and along the roads with the protection of the road)
- Use of public transport vehicles such as buses provided they are gas-using and not depreciated

**Noise pollution:** The harmful effects of noise pollution do not appear directly on humans in the short term, but in the long-term directly affect the nervous system and its negative consequences emerge. The best ways to deal with the noise pollution caused by urban and road traffic and transportation are:

- To create a remote area so that distance of residential areas is far from transportation routes and in standard level.
- To use of plants as natural barriers against noise that can be reduced noise by planting trees along the streets, highways and access roads to cities.

The construction of the green embankment, which is constructed in such a way that it is inclined towards the street and the highway, plays an important role in reducing noise pollution.

Buildings Isolation:

- Eliminate the noisy and used vehicles that are the main cause of noise pollution in cities.
- Priority in the construction and use of metro in large, noisy cities
- Voiceless transport prevention in downtown and replace them with buses and subways.
- Reduce the noise of noisy vehicles by using a variety of anti-noise plastics used around the motor of cars.
- Reduce noise disturbances by creating barriers between



vehicles and the listener that can be used outdoors such as gardens or by installing double glazing and improving the ventilation systems in apartments.<sup>13</sup>

### **To Provide Management Solutions in Urban Traffic to Reduce Air Pollution**

One of the most influential factors of environmental pollution within cities is traffic, so most experts believe that to have a clean environment they have to choose an optimal transportation system. Since the transport system depends on the three essential factors i.e. human, road, and a vehicle in order so interacting with the environment it must be designed in such a way that to evolve one another to achieve optimal safety and welfare.

So far various models of the relationship between air pollutants and environmental parameters have been presented, which means that the provided solutions have been at decision-making level but it is also necessary and unavoidable in traffic management decision-making.

The environment has been one of the main and most important concerns and worries of modern human societies for the past several decades.

The environment and the need to protect and conservation it has been particularly important to the extent that this has forced human society to adopt special laws and regulations called environmental rights.

However, human beings still have not been able to control the harmful and destructive consequences of the environment, and the world is constantly confronted with the increasing destruction and pollution of the environment.

A significant portion of the pollutants belong to automobiles and road accidents, especially in developing countries, and an important part of the hazardous and fatal pollutants are produced by cars and their accidents. Air pollution from fossil fuel vehicles is in a critical and dangerous condition. Environmental pollution, including air pollution, is caused by a number of factors such as increasing the number of cars, changing the pattern and culture of transportation, and especially road and car accidents. Roads as the infrastructure of human societies are widespread in all regions. The primary task of roads is to facilitate transportation in different areas.

But this same communication tool has now become a disruptive face for the environment in the global level as transportation and road accidents expand.<sup>14</sup>

Globally, transportation is a major contributor to carbon dioxide production and release into the atmosphere, and its greenhouse effect is one of the most serious environmental problems.

Therefore, reducing road accidents in the transport sector

is one of the infrastructure major goals to increase and improve the quality of the environment.

Air pollutants reduction is the basis of preventive programs to reduce road accidents and their detrimental effects on the physical and mental health of humans; In the meantime, the role of transport and road accidents is very effective. Therefore, the first step in preventing air pollution is from traffic and road accidents through regulatory agencies. The second step is air pollution permitted limit evaluation and assessment. And the third step is to adjust the laws and regulations appropriate to the present status of pollutants and polluter vehicles and to apply regulations and restrictions on the number of pollutants emitted by cars. Effective steps can be taken to protect the environment and reduce traffic pollution and road accidents and the increase in the welfare of human society by proper planning, public education, expanding public transport, environmental culture, and raising public awareness of the community and reducing road accidents.

### **The Role of Traffic Culture in Reducing Air Pollution**

Traffic accidents and traffic safety in developing countries have become so sensitive and that has occupied the minds of most people and officials. On the other hand, research has shown that the human factor contributes the most to the occurrence of traffic accidents.

Public and private transportation and lack of proper culture making in traffic issues for optimal use of them is one of the major causes of traffic, noise, hygiene pollution, waste of time and the national capital and so on.

Considering that due to the lethal traffic in the Metropolis of the developing countries and given that these cities are the most polluted cities in the world, there is an urgent need and to address, investigate, and implement solutions. Reducing the pollution and damage caused by traffic is very necessary and vital.

The government and its subsidiaries, and independent grassroots institutions, have not taken significant action in terms of culture-making and efficient use of transport.

Therefore, revising the culture of traffic and urban management to provide services without the need for intra-city travel, increasing the capacity of the public transport fleet and encouraging citizens to use public transport is one of the most important tasks to be addressed.<sup>15</sup>

Authorities, media, independent intellectuals, and education, etc. each of them, according to their responsibilities and powers, they need to step in to create the right contexts for culturing to solve social problems and move on in the context of greener development, much smarter and with sophisticated planning. We need to replace the more effective and useful human and citizenship values. The

media should be obliged to promote the right culture of citizenship. Otherwise to build more bridges and highways will not be the solution. Education must go so far that every citizen himself be a lawmaker, lawmaker, police, and judge. On the other hand, it is important to educate citizens that a private car is of particular use and they do not need to be problematic for themselves and others anytime and anywhere by improper use of their vehicle.

Considering the acute traffic problems and its unfortunate consequences, and as large cities have become more of a smoke and pollution tunnel than a livable and relaxing city, the need to pay close attention and The implementation of Expert and examined plans to solve the raised traffic and problems is very vital.

Performing culture-making that leads to preventing problems is the least expensive and the best thing to do. Many people think of air pollution when the issue of pollution is raised whereas traffic pollution is much wider than air pollution. One of the major solutions that have been encouraged in developing countries for many years is the use of public transport. In these countries, citizens are trying to use the public transport system for daily commutes and daily operations. It has been cultivating for a few years, but we still see more and more personal cars in these cities.

Unfortunately, air pollution is at a disadvantage situation in the metropolis of developing countries, and to get rid of this crisis is necessary to provide public and executive solutions. Citizens' cooperation is undoubtedly very important and vital in this regard.

The overcrowding of vehicles due to the limited capacity of the network of passageways causes numerous problems such as waste of time, increased fuel and energy consumption and environmental and noise pollution that it is essential to reduce the use of personal vehicles and increase the share of public transport in passenger transportation along with improving the quality of this fleet.

One of the most important tasks of the municipality and its affiliate organization is to promote public culture in this regard, and other agencies must play a part in educating and promoting this important culture alongside the municipality.

The increasing importance of the environment issue and the rising trend of environmental pollutants have prompted official authorities to push public opinion and different strata of society towards clean air, because the main strategy for reducing air pollution public participation and culture making is a partnership between various governmental and non-governmental institutions. If related institutions in promoting traffic education for culture-making be involved, the use of public transport will increase, and if traffic culture is done properly, single-occupancy vehicles will be

minimized and environmental pollution will subsequently reach its possible least.

## **Solutions and Opportunities**

### **Challenges**

Metropolitan air is more polluted than ever before this contamination has caused serious financial and life loss. Therefore, urban management has taken so far many steps and actions to address this important concern.<sup>1</sup>

Increasing population density and economic and industrial activity have increased traffic volume and, as a result, increased air pollution levels in metropolitan areas. The continued growth of traffic has created the need for a coherent regulatory framework for traffic management and air quality management at the regional scale. In this paper, there has been attempted to study the extent of distribution and dispersion of pollutants emitted by vehicles, and to describe the process of developing environmental models and their relationship circumstance with transportation systems take an effective step to help traffic management policymakers.

In some urban areas, increasing population and consequently increasing car traffic as well as the presence of factories of various industries will increase the temperature of some urban areas compared to other areas. The high concentration of pollutants, both in the urban transport system and in industries in each part of the city, increases the number of pollutant gases and, consequently, increases the ambient temperature, which causes the formation of heat islands. These conditions jeopardize the economic and social interests and resources of future generations and, contrary to sustainable development. Among them, vehicles and their traffic play an important role in environmental pollution.

Today, with the advent of technology and the safety of vehicles and roads, still the most important factor in reducing accidents is the human factor. It is the man who ultimately commands the car, and it can be catastrophic if it is influenced by factors such as anger and fatigue.

Nowadays, all countries especially developing countries have realised to the realization that the key to solving traffic problems and reducing traffic accidents and dangers is the right culture among drivers and car owners. This culture is based on the underlying social psychology and the cultural attitude of that society nowadays called traffic psychology.

The issue of traffic and driving in the Metropolis is generally considered as an important component of urban life in social interactions and interpersonal relationships, since the problem of traffic and aggressive driving and its consequences, especially in urban areas, personal life and affects everyone social life.

However, in most developed countries today, the importance and role of cultural and personality traits in driving, legislation, avoiding and preventing accidents and road accidents, investigating traffic problems and offensive driving accidents focuses on driving psychology.

The main themes and topics of the psychology of driving or traffic psychology are a mixture of findings from other areas related to psychology such as social psychology, personality psychology, developmental psychology, health psychology, clinical psychology, and social culture. All that is said is how the system of values, beliefs and attitudes, feelings, and motivations and the set of individual and social behaviors of man can be considered as the main factor in explaining a traffic problem or phenomenon.

Social Character and Personality of the Driver, Conditions governing her cognitive, emotional, behavioral, sensory and motion sensors can play a major role in traffic and traffic accidents.

According to statistical reports, in most metropolis of developing countries of the world the main cause of traffic accidents and road accidents, aggressive driving, lack of traffic culture.

## Opportunities

In general, life in the metropolis of developing countries has many requirements, including high car traffic. Given the cultural dilemmas of urban traffic and urban traffic, one important factor to consider in this area of culture is the modification of citizens' traffic behavior. A type of behavioral abuse is mostly voluntary and therefore learnable. Driving is also a form of participation and social interaction. A partnership is a behavior and behavior is also learnable and has the principles and rules. Therefore, participation is also learnable. Accordingly, the focus should be on culture-making with emphasis on the following issues in the metropolis.

As opportunities to promote traffic culture to reduce air pollution in metropolis of developing countries as much as possible are as follows:<sup>2</sup>

- Transportation facilities and cars have been modernized, but the correct culture of their use has to be taken a step further, in which cultural upgrading of society seems necessary.
- The increasing growth of intra-city trips and the public's culture of reducing them.
- Proper coordination between enforcement and transport demand management
- Appropriate view of insurance by the people
- The increasing growth of urban trips and the low growth of a public culture that in this respect is necessary to promote the cultural quality of society and urbanization.
- Eliminate or reduce Pedestrian violations and drivers or car owners' cases by using different equipment.
- Promote a sense of forgiveness in driving to correct abnormal traffic behaviors.
- Promote the acceptance of social responsibility in urban traffic through the mass media.
- Introducing a unified model to a citizen named "A Metropolitan Citizen with Good Traffic Behavior".
- Train drivers of public vehicles for optimal interaction with passengers.
- The continuous presence of qualified people to teach correct traffic culture and appropriate behaviors in citizens' offices, factories, and workplaces.
- Raising and increasing the costs of driving violation so that in comparison to cost-benefit, one does not prefer the wrong way and failure to comply with the driving law.
- Compilation of books and pamphlets for appropriate traffic training at the metropolitan level and its training through the trained experts in schools (with emphasis on primary and secondary education) as well as the development of traffic parks.
- Insert moral and legal warnings into fine bill
- Provide a bunch of bills that are purely educational and warning and use it on special occasions such as Mother's Day, World Clean Air Day, Freedom Day, Independence Day, and other special occasions for each nation.
- Using a national card to penalize pedestrians, rookies, and public transport users for violations.
- Adopt laws and regulations to control pedestrian violations in metropolises.
- Investing in and accelerating in using smart technologies to reduce police presence and intangible traffic control (road safety camera, speed control, red light control, bus lane control, left-lane control, monitoring technology, etc.).
- Consulting and Survey of metropolitan citizens on traffic laws, regulations, and projects aimed at encouraging citizens to comply with traffic regulations and promote a public traffic culture.
- Providing appropriate patterns of travel time and average speed of travel with simple and portable communication to citizens in major metropolitan roads.
- Information on Traffic Service Quality of Traffic Network of Cities in Peak hours using city signboards.
- Increasing coordination between law enforcement agencies and cultural and educational authorities and the mass media.

## Conclusion

The increase in the population of metropolitans has consequences such as increased air pollution. Given the great role that air pollution indicators play on the health of people, especially children, and the elderly people,

the quest for a clean and healthy city is a public task. Considering this point that one of the major causes of air pollution is the increase in cars as well as pollutants emitted from residential homes, it is necessary to culture-making traffic culture and provides the necessary training in this regard.

Challenges in this section include:

- Increased use of personal cars.
- Expected end-of-term futures for greenhouse gases
- Insufficient training, excellence, and lack of community participation in Idaho
- The necessity of training appropriate measures to reduce the effect of air pollution on the health of people on the infected days of the year.
- Increased emission of residential building pollutants due to increased urbanization.

Today, with expansion and proliferation of personal cars with the and the increase in traffic load on the streets, the traffic congestion in the city has increased, including the use of public transport by citizens to reduce traffic load, facilitate the movement of citizens in the city, reduce congestion, it is very effective, and it means urban development.

The first point in using public transport fleet is culture-making and provide infrastructure, and to encourage the use of public transport to alleviate and reduce the problem of traffic and air pollution, and public transport culture is realized. Infrastructure must be provided. Today, the existence of buses and taxis in cities, that each has its own tangible impact on the management of the disrupted space of urban traffic, are of highlighted cases. In comparison to the infrastructures of the aforementioned countries and the developed countries, it should be said that the advanced countries have an incentive to use these vehicles in these countries and that they encourage people to use them.

Traffic culture making in all countries not only plays an important role in encouraging citizens to use public transport, such as buses, taxis, and subways, but it also drastically reduces air pollution, traffic congestion, and so on.

The use of the public transport fleet requires not only a culture-making but also several infrastructures, including bus supply and quality.

High bus supply, high quality, special bus line running, traffic planning, infrastructure provision, paper ticketing to electronic, limiting personal transportation, parking price increases, etc. and the public quotes.

Many variables are influenced by the issue of encouraging citizens to use public transport; one is that to persuade citizens to use the bus, there must be a high supply, along with high quality, as well as the provision of infrastructure.

Converting paper tickets and cash into electronic cards and main card is effective, though there are still some who do not use these cards.

Launching a special bus line, restricting personal transport, are among the factors encouraging people.

Increasing parking prices for private cars, raising insurance prices, fuel costs, and enforcing traffic restrictions are some of the factors that can encourage people to use public transport.

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