

# CAUSES AND COUNTERMEASURES FOR BEIJING’S HAZE IN THE VIEW OF TRAFFIC

Can LIU

School of finance and economics, Chongqing Jiaotong University, Chongqing, CHINA

**Abstract:** Recently, Beijing has been surrounded by haze many days during 2014. The air pollution has affected people’s life seriously. And the motor vehicle exhaust is one of the main reasons that cause the haze. So it is important to analyze the haze in respect of transport to find the main causes and the countermeasures.

**Keywords:** Haze; Traffic; Causes; Countermeasures

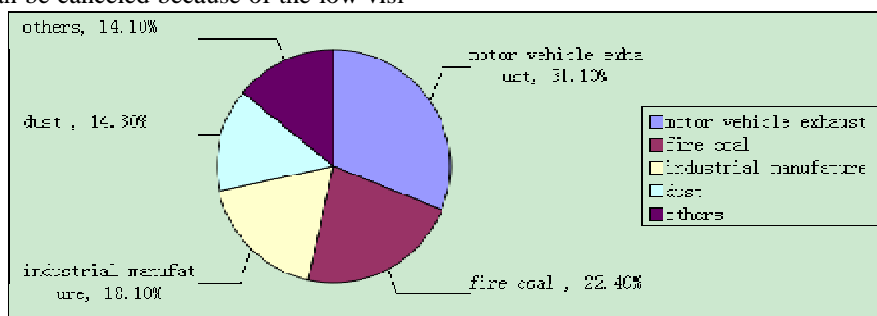
## 1. Introduction

With the development of the economy, people’s living standard is rising day by day. And more people can afford to buy cars themselves. As a result of the increase of the cars, car exhaust emissions significantly increased, which is the one of the main reasons for air pollution. And the haze is one typical air pollution. As we all know that, haze is very harmful, to people’s health, it increases the risk for people to catch lung disease. Besides this, it also brings very many negative influences to the traffic situation. Flight can be canceled because of the low visi-

bility. What is worse, it can increase the risk of car accident.

## 2. Current Situation

We take Beijing as an example to analyze the relationship between haze and traffic. As for the current situation, car exhaust emissions are the main reason for pm 2.5. From the chart, we can see the motor vehicle exhaust accounts for 31.1% of Beijing’s pm 2.5, which is the main part of the cause of pm 2.5.



(coming from <http://www.bjepb.gov.cn/bjepb/323474/331443/331937/333896/396191/index.html>)

Figure 1. Source of Beijing’s pm2.5

## 3. Reasons of Traffic that Causes Haze

### 3.1. The Increase of Car Pac in Beijing

Car pac in Beijing has been increasing every year. Seeing from the blank below, we can see that, car pac in Beijing has raised from 3504000 to 5200000 from 2008 to 2012. As we all know car emissions are the main cause of air pollution, especially contribute a lot to the high pm2.5 in Beijing. So with the rapid increase in car

pac, Beijing’s air pollution has become more and more serious year by year [1].

Table 1. Beijing’s car pac

	Car pac	3504000	4019000	4700000
Beijing	Increasing rate	9.6%	14.7%	16.9%
year		2008	2009	2010
Beijing	Car pac	4983000	5200000	
	Increasing rate	6%	4.4%	
year		2011	2012	

Data source: Chongqing municipal planning bureau, city traffic planning research institute, Chongqing's annual city traffic development report in 2012, 2013

### 3.2. The Increase of Fare since December ,2014

Since December 28, 2014, the Beijing's municipal urban public charge and rail transportation (except airport line) price standard is reset. The new fare standard has been increased .And this will makes many car owners choose to drive to go working or shopping which will lead to more car emissions than before and cause more pressure to the air quality.

### 3.3. People's Travel Concept

People's energy saving concept stays on the surface. Many people tend to drive their own cars to go out. And besides this, many people tend to purchase their own car. And when holiday comes, people like to drive themselves rather than to take the public transit. And this definitely causes a lot of pressure towards traffic and the environment[2].

## 4. Countermeasures in the Traffic

After analyzing all the causes about traffic mentioned before, it is very necessary for us to raise solutions in traffic at once to prevent the negative effect causing by traffic.

### 4.1. Control of Motor Vehicle Number

There are two ways to control the motor vehicle. First, it is to raise the cost of car purchasing, constrain the entry of new car, build system of entry of market, and forbid the sale of below-standard vehicles. Secondly, it is to raise the cost of using, such as raising parking fees, etc.

### 4.2. Improve the Service of Public Transit

After the price standard is reset since December 28,2014.Fare has been raised both for bus or subway. It makes the public transit even more unattractive for those people who own their own cars. Since that, the service of

public transit should be improved to attract more people. Just as the example of Hong Kong, fare of public transit is kind of higher compared with other countries, but the service quality is more satisfying. So most of the people choose to use the public transit. This will decrease the pressure causing from the traffic to the environment, especially the air quality.

### 4.3. Educate People to Save Energy and to Use Public Transit

Nowadays, people's travel concept has been formed because of China's special consumer culture. It is hard to change. So what should be done is to educate people to save energy, to encourage people to use public transit. People should know the concept of Green Traffic and choose environmentally- friendly ways to travel, such as, taking bus, taking subway, biking, walking, etc[3].

## 5. Conclusion

Since car emissions are the main cause of Beijing's pm2.5 ,so it is very meaningful to analyze the haze in Beijing in the view of traffic and find the solutions to control the haze, to prevent the deterioration of our air quality. We focus on the car emissions which is the main cause of Beijing's high pm2.5. And during the APEC, people are encouraged to take bus and not to drive, and the air quality has been improved a lot, which proves it is right to find the solutions to control haze in the view of traffic.

## References

- [1] Li Lifang, Li Shengfang, Cui Zhongbo. Causes and countermeasures of haze in the respect of traffic[J]. Economy, Industry, 2014.
- [2] Huang Chengfeng, Dingyin, ZhangYuanyuan. The inner chongqing's traffic characteristics considering urbanization, space structure and the particularity of motorization,J, Urban and rural planning of chongqing,2013 (1): 36-41.
- [3] Develop public transit to control haze,Urban Public Transport,2013,06