

**SOCIAL & ENVIRONMENTAL  
IMPACTS OF AUTO LEASING  
IN PAKISTAN**

708051



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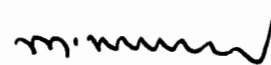
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## CERTIFICATE

The thesis entitled "**Social and Environmental Impacts of Auto Leasing In Pakistan**" submitted by **Raisa Khatoon** in partial fulfillment of LLM degree with specialization in **Corporate Law** has been completed under my guidance and supervision. I am satisfied with the quality of student's research work and allow her to submit this thesis for further process as per IIUI rules and regulations.



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## DECLARATION

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### STATEMENT OF UNDERSTANDING

I, Raisa Khatoon bearing the university registration number 189-FSL/LLMCL/SO8, declare in the name of Allah that my thesis entitled,

**“Social & Environmental Impacts of Auto Leasing in Pakistan”**,

Submitted to the Department of Law, Faculty of Shariah and Law, is a genuine work of mine originally conceived and written down by me under the supervision of Professor. Dr. Muhammad Munir, by Allah’s will and approbation.

I do, hereby, understand the consequences that may follow, if the above declaration be found contradicted and/or violated, both in this world and in the hereafter.

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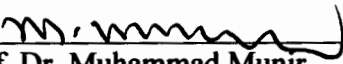
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Dated: 28<sup>th</sup> June 2011

**Dedicated**  
**to my parents**

The problem of pollution is more dangerous as compared to destruction by Hydrogen Bomb. It is proper and high time to implement the law in letter and spirit without discrimination as the life of human being is more precious. In fact, every one is not saved from the attack of pollution, in this view of the matter each and every citizen, public functionary, authority and body must discharge its responsibility to reduce this problem at any rate at any cost.

**Mrs. Anjum Irfan V. LDA**

**(Before Ch. Ijaz Ahmad, J)**

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## **ACKNOWLEDGEMENTS**

Certainly it is the blessing of the gracious and sympathetic Allah Almighty that I have accomplished this task. I would like to acknowledge my debt of appreciation to my supervisor Professor Dr. Muhammad Munir who spared of his valuable time to guide me throughout the project.

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## **PREFACE**

Pollution free Environment is of eminent importance for not only human beings but also the animals; it is also of great concern to the non living beings like lands, air, trees, hills, glaciers which ultimately adds up in global environmental issues. There are several reasons of this one of which is auto leasing and that's the main subject of my thesis.

Unfortunately, in Pakistan we have laws regarding auto leasing, pollution abatement but they totally work exclusive of their cooperation. They are not implemented together. There are different impacts of auto leasing that are quiet obvious these days. This is not only the problem of our country infact the whole world is facing the same problem. The difference is that the other world is trying infact enabled its control but Pakistan is still behind in the implementation of its own laws.

This work of mine explains the blow caused to the environment and our society at large. Mere discussion is not enough that is why I have also given some recommendations for solving this ever growing problem and its impacts.

**Raisa Khatoon**

**International Islamic University Islamabad**

**February 2011**

## **ABBREVIATIONS**

|                       |   |
|-----------------------|---|
| <b>YoY</b>            | <b>year on year</b>                                     |
| <b>NPLs</b>           | <b>non performing loans</b>                             |
| <b>SBP</b>            | <b>State Bank of Pakistan</b>                           |
| <b>PPP</b>            | <b>Principle Pays Principle</b>                         |
| <b>TDPs</b>           | <b>tradable discharge permits</b>                       |
| <b>CO<sub>2</sub></b> | <b>Carbon dioxide</b>                                   |
| <b>PACO</b>           | <b>Pakistan automobile cooperation</b>                  |
| <b>PAMA</b>           | <b>Pakistan automobile manufacturing association</b>    |
| <b>VDTC</b>           | <b>Vendor Development &amp; Technical Cell</b>          |
| <b>NDFC</b>           | <b>national development finance corporation</b>         |
| <b>NDLC</b>           | <b>national development leasing corporation</b>         |
| <b>IFC</b>            | <b>international finance corporation</b>                |
| <b>ADB</b>            | <b>Asian development bank</b>                           |
| <b>TPO</b>            | <b>traffic police office</b>                            |
| <b>ETO</b>            | <b>excise and taxation office</b>                       |
| <b>NBFC</b>           | <b>non banking finance corporation</b>                  |
| <b>NBFI</b>           | <b>non banking finance institution</b>                  |
| <b>EPA</b>            | <b>environmental protection agency</b>                  |
| <b>PEPO</b>           | <b>Pakistan environmental protection ordinance</b>      |
| <b>NEQS</b>           | <b>National Environmental Quality Standards</b>         |
| <b>PEPA</b>           | <b>Pakistan environmental protection agency</b>         |
| <b>PEPC</b>           | <b>Pakistan environmental protection council</b>        |
| <b>NWFP</b>           | <b>North West Frontier Province</b>                     |
| <b>U.S.</b>           | <b>United States</b>                                    |
| <b>U.N.</b>           | <b>United Nations</b>                                   |
| <b>PACO</b>           | <b>Pakistan Automobile Corporation</b>                  |
| <b>IMCL</b>           | <b>Indus Motor Company Limited</b>                      |
| <b>PAMA</b>           | <b>Pakistan Automotive Manufacturers Association</b>    |
| <b>OECD</b>           | <b>organization for economic growth and development</b> |
| <b>CO</b>             | <b>Carbon monoxide</b>                                  |
| <b>NO<sub>x</sub></b> | <b>Nitrogen oxide</b>                                   |
| <b>H<sub>2</sub>O</b> | <b>Water</b>  |

## **ABSTRACT**

A land without pollution seems an illusion because it would be not less than a heaven on this earth. There are numerous factors that add up in pollution but the most prominent is the auto industry. The main sector that supports its on going growth is the leasing sector. No doubt it is justified in both conventional and Islamic law but indeed there are many long lasting and hazardous effects if this is not controlled or managed properly.

Once possessing a car was considered a luxury but now it has become a necessity. Through the companies (II amendment) ordinance 2002, a new part VIII A (containing provisions of section 282A to 282M) has been inserted in the companies' ordinance, 1984 regarding matters pertaining to the establishment and regulation of NBFCs.

The unavoidable effects of auto mobile in daily life have been a subject of great concern. A class of people on one end claim the car is a technology, which has brought about mouth less prosperity while the other class of people claim that it leads to a mode of urban and human interaction using large amount of polluting fuel and drains urban centers of their populations that leads to wide spread urban decay and ignorance of once proud and well-organized cities. The auto ruled transport system is quite an inspiration to many but besides this there are certain facts, which are significant to understand. The developing countries are more vulnerable to the effects of increasing auto mobile system that includes pollution, traffic congestions, health problems, dangers to pedestrians and bicyclists, and the loss of green belts.

Pakistan since 1975 made development in the environmental sector, which includes National Environmental Quality Standards for motor vehicle exhaust and noise [NEQS]. Euro 5 and 6 are the regulation proposed by the European commission, which tightens emission limits of particles and of NO<sub>x</sub> for new cars.

The standards fixed by prevailing laws in Pakistan are not according to International Standards but still if the Government agencies work properly and the law is implemented in its true sense then a large amount of pollution can be abated and later by we can work on increasing these standards. Close coordination of different Government Departments with the leasing sector is a need of time, as we have laws but their implementation is lacking.

The Holy Quran provides that ALLAH, the creator of this universe, has precisely balanced the systems in HIS creation and has established equilibrium between them and such equilibrium must not be disturbed. Further, Prophet Muhammad [PBUH] said; “cleanliness is half of the faith”, that clearly brings out the importance of conservation of environment.

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## **CHAPTER 01**

### **THE CONCEPT OF LEASING**

#### **INTRODUCTION**

Since birth man is being striving for his survival. He adopted different ways one of them is earning money through work. One of the best examples of such situation is leasing. This is the concept recognized and practiced since years, recognized in a sense that this is practiced both in Islamic law that is Shariah and common law. The concept of lease is termed as *Ijarah* in Islam but the rules and validity is very much different from the conventional lease as conventional lease is totally based on *Riba*. But here our concern is not to differentiate the concept of lease in both systems but to analyze its impacts.

In this chapter, I will deeply define the concept of lease and its root history in the world and also in Pakistan. The Islamic equivalent is relevant over here that is why I will include the Islamic concept of leasing.

The laws regarding leasing in Pakistan are also relevant and very important here so to clear our minds with the basic concept of leasing and its laws in Pakistan and obviously we will proceed with the real and actual topic of discussion in our subsequent chapters.

#### **OUTLINE OF THIS CHAPTER:**

1.1 Literature Review

1.2 The history of leasing

1.3 What is leasing and auto leasing?

1.3.1 Characteristics of leasing transactions

1.3.2 Advantages to lessor



1.4 Leasing in Pakistan

1.5 Laws regarding leasing in Pakistan

1.6 Islamic concept of leasing

1.7 History of Auto industry in Pakistan

1.7.1 The growth of automobile industry in Pakistan

1.8 Conclusion

## **1.1 LITRETURE REVIEW**

Before going into the detailed discussion regarding the preliminary part, I would like to analyze the literature available, written or published, related to the social and environmental impacts of auto leasing in Pakistan.

In the developed countries like U.S., once the problem arises, the law makers or legislatures start working on its legal aspects, and make laws to avoid the impacts of any such problem. In the case of increasing car lease in U.S. different researches are been conducted, but this is not so in Pakistan. Unfortunately, I could not find a single research on this issue. There are many articles on net, many authorities also talk about it, and some laws do support to help eliminate this problem but this is not enough. They are subject to alterations and amendments. The steps taken by government can avoid the problem for a short time, but can result in more difficulties in the future. Thus, there is dire need of certain rules (having legal effects) for the leasing companies and also the citizens who lease out cars. Following are some related books written on the aspect of auto leasing;

1. *Driving south: The Globalization of auto consumption and its social organization of space*<sup>1</sup>. The writer is focusing on the USA road infrastructure and traffic congestion further reveals in this book that as the auto ruled transport system is quite an inspiration to many but besides this there are certain facts, which are significant to understand. The developing countries are more vulnerable to the effects of increasing auto mobile system that includes pollution, traffic congestions, health problems, dangers to pedestrians and bicyclists, and the loss of green belts.<sup>2</sup> As a path for economic progression, south adopted mass auto ownership as a method of consumption. According to the book the vehicle registration from 1993 to 1997 increased 61% in south as compared to west, where it increased with 40%.<sup>3</sup> According to it, to get away with this problem traffic planning and road infrastructure should be dealt with excellence. Here I would like to quote a paragraph from this book that is, in itself a summary of this book.

It is important when considering these changes, not to see them as a product of an automobile but rather as a consequence of the way their use is organized, as part of an auto-centered transport system. This system includes an extensive material infrastructure of roadways, service and repair facilities, storage spaces, and an extensive social infrastructure of elaborate bureaucracies for the control of traffic, the

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<sup>1</sup> Peter Freund and George Martin, *Driving south: the globalization of auto consumption And its social organization of space* (New Jersey, US: Montclair State University Department of Sociology, 1999), <http://www.chss.montclair.edu/~hadisb/drivout.pdf>, (accessed Dec 01, 2009), also available at: [http://books.google.com.pk/books?id=UhV7wmnXROAC&dq=%E2%80%A2%09Environmental+sociology:+from+analysis+to+action++By+Leslie+King,+Deborah+McCarthy&printsec=frontcover&source=bl&ots=xfRE5VPJQ1&sig=-LtMDe50VMETLKa3Jajab9F8sWU&hl=en&ei=GOs8S8\\_uOc2HkQWv6JS-Dg&sa=X&oi=book\\_result&ct=result&resnum=1&ved=0CAgQ6AEwAA#v=onepage&q=&f=false](http://books.google.com.pk/books?id=UhV7wmnXROAC&dq=%E2%80%A2%09Environmental+sociology:+from+analysis+to+action++By+Leslie+King,+Deborah+McCarthy&printsec=frontcover&source=bl&ots=xfRE5VPJQ1&sig=-LtMDe50VMETLKa3Jajab9F8sWU&hl=en&ei=GOs8S8_uOc2HkQWv6JS-Dg&sa=X&oi=book_result&ct=result&resnum=1&ved=0CAgQ6AEwAA#v=onepage&q=&f=false) (accessed Dec 02, 2009).

<sup>2</sup> Ibid, 226.

<sup>3</sup> Ibid, 227.

education of drivers, and the regulation of drivers, vehicles, and fuels, as well as a culture of automobility. Fundamentally, in autocentered transport systems the automobile is the dominant mode of transport and its use commands the disposition of much of public space.<sup>4</sup>

2. *Time for a model change: Re-engineering the Global automobile industry*

By Graeme P. Maxton, John Wormald.<sup>5</sup> I found this book on the net but could not get the full access to its chapters except chapter 01, as it requires monetary subscription to view it. The contents and chapter 01 almost clears some how the structure and material included in it. Chapter 2 deals with noxious emissions, accidents and traffic congestions whereas chapter 03 deals with global warming due to increase in traffic on roads.

3. *The Polluter Pays Principle in International Environmental Policy and Law*<sup>6</sup>.

This book is comprised of detailed economic and legal analysis of PPP<sup>7</sup>. This book is based on the principle which states that “the cost for the pollution abatement should be borne by the pollutant himself, not by their governments”. The writer believes in the implementation of this very principle inspite of having it etched in the concrete and asphalt, to which many feel conceited as if they really have done something amazing. The book suggests detailed procedures, strategies and mechanism, adopted by the concerned government for the internalization of external cost, and how to compensate the damage, which

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<sup>4</sup> Ibid 2, 3.

<sup>5</sup> Graeme P. Maxton, John Wormald, *Time for a model change: re-engineering the global automobile industry*, [NY, USA: The press syndicate of the University of Cambridge, 2004], <http://books.google.com.pk/books?id=3aN6rxZG2p0C&pg=PR5&dq=%E2%80%A2%09Time+for+a+model+change:+reengineering+the+global+automobile+industry+By+Graeme+P.+Maxton,+John+Wormald&cd=1#v=onepage&q=%E2%80%A2%09Time%20for%20a%20model%20change%3A%20reengineering%20the%20global%20automobile%20industry%20By%20Graeme%20P.%20Maxton%2C%20John%20Wormald&f=false> (Accessed Nov 22, 2009).

<sup>6</sup> Muhammad Munir, *The polluter Pays Principle in International Environmental Policy and Law: Economic and Legal analysis*, (Islamabad Institute of legal studies, 2004).

<sup>7</sup> Stands for Polluter Pays Principle.

ended up in mass as well as environment destruction. This book was a great help in understanding this principle for me.

4. *Pakistan Environmental Laws and their compliance: a guide to Industrial Establishments.*<sup>8</sup> This book is a compilation of different environmental laws including international, national laws, case laws and brief history about all of them. It is a comprehensive guide regarding legislations on Environment. It begins with a brief history of the environmental laws and agencies. It also includes info regarding PNCS<sup>9</sup> and National Environment action plan- Support program. Furthermore it specifies the common law remedies available in case of environmental pollution. Precisely, it is a complete and comprehensive book for the lawyers and researchers for reference to national and international Environmental laws and conventions.

These are some books, which I was able to find from net. Whereas there is not a single book from our country neither any authentic research paper. While searching on net I found a research study regarding this aspect but it was uploaded in public domain. It is a composite report on Pakistan automobile industry by Arsalan Shaukat Ghumman and Uzair Hameed.<sup>10</sup> If we talk of authenticity then there is so much of the authentic material from different news paper commenting on the same and similar aspect, but, they are just the newspaper articles. In my research, I would focus on these articles, internet and data collected from ETO, Banks, SBP annual reports and TPO.

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<sup>8</sup> Dr. Shoaib Qadar and Athar Rafique Dogar, *Pakistan environmental laws and their compliance: a guide to Industrial Establishments* (Lahore: Lahore Law Times Publications, 2002).

<sup>9</sup> Stands for Pakistan National Conservative Strategy.

<sup>10</sup> Available at: <http://www.scribd.com/doc/16255181/Final-Report-Pak-Auto-ind-09> (accessed December 08, 2009).

## **1.2 THE HISTORY OF LEASING**

Rental agreements are over 4,000 years old. In 1984 archeologists discovered clay tablets which documented the first rental agreements in 2000 A.D, in the ancient Samarian city of Ur. At that time priest, the governing bodies of that time use to rent the agriculture goods and lands to the farmers for certain payment under certain conditions and for specified periods. Fifty years later, the king of Babylonia enacted the first leasing laws in his famous code of Hammurabi.<sup>11</sup> Ancient civilizations of Greece, Egypt and roman all engaged in the leasing of real and personal properties. The ancient Phoenicians used to charter ships which are the best example of equipment leases. In fact, net lease provisions in modern lease are known as “pay come hell or high water” clauses.

In the middle age the rent of knight’s armour was very much popular. The armour was very expensive and thus was rented and the rent payment for these armours was 25% of its actual value. In 1877 a US telephone company named as “Bell” announced the grant of telephones only on the basis of rent but the US government worked out a special law which bound this company also to sell out its products.

During World War II leasing gained popularity when manufacturers entered into costs-plus contracts with the government. In this the manufacturers were entitled to recover the actual price of the equipment with the profit.

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<sup>11</sup> “History of leasing”, (Progress-Neva Leasing LLC). <http://www.pn-leasing.ru/en/205/> (accessed July 05, 2009).

In the beginning of 1940s an automobile seller started to offer the rent of whole automobile fleet instead of separate automobiles his name is Zolly Frank from Chicago and is considered as 'the father of modern automobile rental'.

In 1990s a special leasing company was formed whose specialization was only in leasing service. In Europe and Japan both the new leasing business increased by 800% between 1970 and 79.

Nowadays in 21 century leasing has appeared with a boom and is now a special part of economy. This concept has now become a way of purchasing and renovating fixed assets.

In US leasing first appeared in 1700 to finance the use of horses drawn wagon. In the mid 1800, the railroad tycoons in order to extend their private railroads across the country needed huge amount of capital. Many banks of that time refused as it was risky to lend in such industry. For this a new scheme emerged in which third party who were the investors, had to finance and purchase the equipments from the manufacturers and then lease them to the railroad in form of "equipment trust certificates".<sup>12</sup> The USA Economic Recovery of Tax Act of 1981 gave a very powerful boost to leases as it introduced the concept of "Safe harbour lease" under which the revenue guaranteed that a transaction would be treated a lease and not a conditional sale or financing arrangement if the parties to lease elected it to be treated as a lease and certain conditions were satisfied. However, with effect from 1st January, 1984 the concept of "Safe harbour leases" was repealed and all finance leases were guaranteed the benefits of Investment Tax Credit. Since

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<sup>12</sup> Jeffrey Taylor, "The History of Leasing", [http://fbibusiness.com/history\\_of\\_leasing.htm/](http://fbibusiness.com/history_of_leasing.htm/) (accessed July 05, 2009).

1986 the Investment Tax Credit benefit has been withdrawn but leasing had come of age by then. In UK also from 1984 onward tax concessions were given which gave a boost to the business.

The most remarkable growth has taken place in Japan which has a share of 86.43 per cent of total of leasing markets in Asia and is the second largest leasing country of the world. The first leasing company was established there in 1963. It is a known fact that the modern financial leasing is a combination of hiring, credit installment and property leasing. These activities have been continuously modified and developed since ancient times. The concept of lease as a commercial activity was practiced in pre-Islamic times and was later recognized by Islam as a legal form of trade excluding the concept of Riba.<sup>13</sup>

IFC (international finance corporation) made some initiatives, which helped spread leasing sector and it also played an important part in the settlement and boosting of similar business in the number of countries, which include Thailand, Sri Lanka and Jordan.<sup>14</sup>

### **1.3 WHAT IS LEASING AND AUTO LEASING**

It is basically an instrument in which the conditions of letting are finally agreed and ascertained<sup>15</sup>. Letting could be of anything and the instrument should be on proper form. Leases usually comes in different forms like house lease, equipment lease, car lease and many more, but in every situation the user of the particular lease object uses it for a particular time and takes benefit

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<sup>13</sup> M. Javeed Pannni, "Leasing in Pakistan; past, present and future", (Economic Review, FindArticles.com), [http://www.findarticles.com/p/articles/mi\\_hb092/is\\_n3\\_v24/ai\\_n28625041/](http://www.findarticles.com/p/articles/mi_hb092/is_n3_v24/ai_n28625041/) (accessed July 05, 2009).

<sup>14</sup> "Types of Lease", (GMV leasing, 2003), [http://www.gmvleasing.co.uk/lease\\_types/types\\_of\\_lease.asp/](http://www.gmvleasing.co.uk/lease_types/types_of_lease.asp/) (accessed July 05, 2009).

<sup>15</sup> Oxford dictionary, s.v. "Lease."

out of it with a chain of payments to the owner of the leased property. According to the Britannica encyclopedia "lease is a contract for the exclusive possession of property for a determinate period or at will".<sup>16</sup> The person making the grant is called the lessor, and the person receiving the grant is called the lessee.<sup>17</sup> In Pakistan, according to section 105 of Transfer of Property Act 1882, lease of immovable property means the transfer of right to enjoy such property, it is only a partial enjoyment for certain time express or implied which may either be fixed or in perpetuity.<sup>18</sup>

Purchasing the equipment after lease in Islamic banks is termed as hire purchase contract which is called as *Ijarah wa Iqtina'* in Islamic law. It is a blend of leasing movable or immovable property with offering the lessee an option of finally acquiring the object of the lease which eventually makes him the ultimate owner of the property leased.<sup>19</sup> These days the leasing companies and the banks are frequently using this kind of lease. There are two kinds of conventional leases. First one is known as operational lease and second is the capital/financial/full payout lease. The operational leases are short term or cancelable during the contract period at the option of the lessee and the later widened over most of the estimated economic life of the asset and cannot be cancelled or can be canceled only if the lessor is reimbursed for any losses.<sup>20</sup> If we talk about International accounting, then according to its standard # 17,

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<sup>16</sup> "Lease", (Encyclopædia Britannica Online),  
<http://www.britannica.com/EBchecked/topic/334041/lease/> (accessed July 01, 2009).

<sup>17</sup> Ibid.

<sup>18</sup> Mohsin & Tahir V. Feroze Nana Ghulamaly and another, Writ Petition No. 1, P L D 1958 (W. P.) Karachi, 32. for more details see Section 105 of Transfer of Property Act 1882.

<sup>19</sup> Muhammad Tahir Mansoori, *Islamic law of contracts and business transactions*, 3<sup>rd</sup> Ed (Islamabad: Shariah academy International Islamic University Islamabad, 2005), 238.

<sup>20</sup> Brealey, Myers, 750.



finance lease is a lease that transfers substantially all the risks and benefits attached to the ownership of an asset there is a probability as regards to the transfer of the title.<sup>21</sup>

In the view of what said and explained above regarding lease the concept became pretty much clear that it is simply the partial transfer of anything and if that thing is auto mobile then this is called as auto leasing.

### **1.3.1 Characteristics of Leasing Transactions**

As regards to the leasing transaction there are certain characteristics associated with this contract. In conventional lease the lease object that is the equipment and the supplier, is at the option of the lease. The lessor then provides the equipment to the lessee while keeping its title to himself for a specific non-cancelable period. The requirement for the equipment is that it should be used for business and the lessee has exclusive right on its use. The risks attached with the equipment or accrued due to its use, solely falls on lessee.<sup>22</sup>

Now let's talk about the suitable advantages of the lease transaction which lessor and lessee can think of. These are stated as follows;<sup>23</sup>

a) Short term leases are easier to enter and carryout with. For example if someone wants some property for a little time, then surely he would not be foolish enough to buy it and then sell out. Here the only useful option is of short term lease.

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<sup>21</sup> M. Javeed Pannni. "Leasing in Pakistan; past, present and future". (Economic Review, FindArticles.com), [http://www.findarticles.com/p/articles/mi\\_hb092/is\\_n3\\_v24/ai\\_n28625041/](http://www.findarticles.com/p/articles/mi_hb092/is_n3_v24/ai_n28625041/) (accessed July 05, 2009).

<sup>22</sup> M. Javeed Pannni. "Leasing in Pakistan".

<sup>23</sup> Breley, Myers, 751.

- b) In higher priced leases, maintenance is also provided.
- c) It offers a flexible financing business that facilitates the lessee through lower transaction costs.
- d) Leases efficiency varies.
- e) It is a saved way against inflation and provides certainty.
- f) It offers non stop cash flow benefits.

### **1.3.2 Advantages to lessor**

If we talk about the advantages that a lessor can have regarding lease transaction, then there are many attached to it. Leasing is a product, which reduces risk and may increase profitability. This transaction provides introductions to equipment suppliers. It is very simple to document and the contract can easily or quickly be closed.<sup>24</sup>

### **1.4 LEASING IN PAKISTAN**

In June 1980 the Council of Islamic Ideology issued a report in which the concept of leasing was recognized as one of the Islamic mode financing. This was introduced in Pakistan in the year of 1985. In this year the banks and the financial institutions, under the government notifications<sup>25</sup>, were required to provide services according to the injunctions of Islam.<sup>26</sup>

In June 1984, the Government directed NDFC<sup>27</sup>, to promote the first leasing company in Pakistan. In isolation NDLC which was established as the first

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<sup>24</sup> M. Javeed Pannni. "Leasing in Pakistan".

<sup>25</sup> The Government issued two notifications effective January 1, 1985 namely "Banking and Financial Services Ordinance, 1984" and "Banking Companies Tribunal Ordinance, 1984".

<sup>26</sup> Shahid Hameed, "special report: the future of leasing sector in pakistan", *et cetra*, Nov 06, 2000, <http://www.pakistaneconomist.com/issue2000/issue45/etc4.htm>, (accessed Oct 08, 2009).

<sup>27</sup> a leading financial institution in public sector.

leasing company in the private sector as a joint venture between NDFC, the Habib Group and IFC, ADB joined later on.<sup>28</sup>

From 1985 to 1997, 32 leasing companies in Pakistan were incorporated with the minimum capital of Rs. 100 million. This rose to Rs. 200.00 million by June 2000 and led to mergers and acquisition.<sup>29</sup> Then this number reduced to 27. In addition to this 9 leasing Modarabas & 3 Investment Banks are actively involved in leasing business. In the mid-nineties the annual average growth was in the range of 30 - 35 percent. The actual growth in the leasing business came in the period 1992 - 95, when over 20 leasing companies were set up. In October 1995, leasing companies' paid-up capital was Rs.7.572 billion, with market capitalization of Rs.6.0 billion as on 30-06-2002.<sup>30</sup>

Leasing is not a very old phenomenon in Pakistan, but has gained acceptance and impetus very rapidly. The leasing sector in general has experienced commendable growth over the years and has effectively proved to be an alternative and effective source of finance.

Let us now see provincial lease financing business by the 7 leasing companies. It is found that it is 58% in Punjab, in Sindh 36 %, in KPK<sup>31</sup> 4 % and in Balochistan its 2%.<sup>32</sup>

In fact 28 listed modarabas are also doing leasing business and out of complete business activities of these modarabas 76% were set for leasing, in 1991.<sup>33</sup>

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<sup>28</sup> "History of leasing in Pakistan", Available at: <http://www.sigma-leasing.com/leasing.htm> (accessed July 14, 2009).

<sup>29</sup> Ibid.

<sup>30</sup> Ibid.

<sup>31</sup> Stands for Khebar PakhtoonKhua, previously named as NWFP.

<sup>32</sup> M. Javeed Pannni. "Leasing in Pakistan".

<sup>33</sup> "History of leasing in Pakistan", Available at: <http://www.sigma-leasing.com/leasing.htm> (accessed July 14, 2009).

The leasing business has a tremendous potential of growth. In the developed countries lease financing as a percentage of total financing is around 32 per cent. Pakistan's ratio is less than 3 per cent. Lease financing on annual basis in USA is about US \$ 130 billion, in Japan US \$ 70 billion and in Indonesia it is US \$ 2 billion. However, in Pakistan it is about US \$ 325 million only.<sup>34</sup>

### **1.5 LAWS REGARDING LEASING IN PAKISTAN**

NBFI stands for non banking finance institution. "NBFI means a non banking financial institution and includes a development finance institution, a *Modarabah*, a leasing company, a housing finance company and an investment bank..."<sup>35</sup> Through the companies (II amendment) ordinance 2002, a new part VIII A (containing provisions of section 282A to 282M) has been inserted in the companies' ordinance, 1984 regarding matters pertaining to the establishment and regulation of NBFCs. Further, in terms of the powers conferred by section 282B of the companies' ordinance, the commission has recently notified rules for the NBFCs, namely NBFCs (establishment and regulation) rules, 2003. Section 13 of these rules deals with the NBFCs engaged in the business of leasing only.

There were no regulation to provide for establishment and regulation of leasing companies in Pakistan till the end of 1989. Formal rules for leasing companies were notified by the Government of Pakistan on 20th December, 1989. The work relating to approval of leasing companies was transferred from Finance Division to Corporate Law Authority (CLA) in December, 1991. CLA looked at the subject afresh and framed comprehensive rules for leasing

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<sup>34</sup> Ibid.

<sup>35</sup> XLII The Security & Exchange Commission of Pakistan Act § 2(n) (1997).

companies in consultation with the Central Board of Revenue and the Finance Division. New rules were notified on May 27, 1992. These replaced the rules of 1989. These were further modified in August, 1992. Certain positive recommendations were received from leasing companies, as a result of which in 1996, again modifications were made then at last in 2000 Leasing Companies (Establishment and Regulation) Rule 2000 were made. In view of the practical difficulties faced by leasing companies, in giving effect to their business transactions and preparation of accounts, the commission, in exercise of its powers conferred by section 282D of the companies' ordinance directs all leasing companies to conduct their business in conformity with the directions which the commission has decided to issue for aforesaid NBFC. These regulations are called prudential regulations for NBFCs. The requirements contained in the said regulations are the same as were earlier prescribed through the leasing companies (establishment and regulation) rules, 2000.

Recently there is a rapid growth in Islamic leasing institutions. But all of them whether they are based on conventional or Islamic lease, are regulated by the same rules and regulations with slight difference. So does the leasing going on in every financial institution is Islamic? The answer to this question needs another research but here I will only give the brief detail of Islamic concept of leasing, not the research.

## **1.6 ISLAMIC CONCEPT OF LEASING**

The Islamic equivalent of leasing is 'Ijarah'. Literally it means giving something on rent but in Islamic law the word Ijarah is used for two different situations. First is hiring an employ for services on wages and second is the

transfer of benefits and usufruct of properties for a certain period of time in exchange of payment (the rent). The first kind is called as Ijarah bil ashkhas and the second situation describes the kind called as Ijarah bil ashyah. The employer in the first situation is called as musta'jir and the employee is called *ajir*. Where as in Ijarah bil ashyah the person who lets the property is called mu'jir [the lessor] and to whom the property is rented is called musta'ir [lessee] and the rent is termed as ujarah.<sup>36</sup>

In the Islamic setting the Ijara mode of financing appears to be somewhat similar to the Western leasing mechanism. Ijara is a contract that allows all the benefits of ownership of a hired article on a specified fixed rent for a specified period so that any vagueness, either of benefits of ownership of the hired article, or of the specified fixed rent, or of the specified period may not cause any dispute among the parties concerned. Thus, due to the above characteristics, the Ijara mode of financing has unanimously been approved by the prominent jurists of the recognised schools of Islamic Shari'ah.

Scholars of the four schools of Islamic law have differed somewhat on the precise definition of Ijarah. All the madhahib are in agreement however, that Ijarah is a contract of the sale of known and specified benefits or services in return for compensation.<sup>37</sup> Minor variations in the definition may be summarized as follows: all the four schools of thought agree that the consideration should be known but the difference lies on its benefits and

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<sup>36</sup> Taqi Usmani, "Ijarah", *An online publication by accountancy.com.pk*, 02, [http://www.accountancy.com.pk/docs/islam\\_ijarah.pdf](http://www.accountancy.com.pk/docs/islam_ijarah.pdf) (accessed Dec 20, 2009).

<sup>37</sup> Abu Sulayman 'Abd al-Wahhab, *'Aqd al-Ijarah Masdar min Masadir al-Tamwil al-Islamiyah*, [Jeddah: Islamic Research and Training Institute, 1413/1992], 18.

termination. According to Hanafi and Maliki it is a terminable contract and for Hanbali and Maliki the time for which the contract is made should be fixed. The Maliki and Hanbali definitions of Ijarah qualify benefits and services into lawful benefits and services (*manfa'ah mubahah*) that would preclude unlawful objects and activities, other schools subsume this qualification under the conditions and requirements of Ijarah. Another stipulation in the Hanbali definition is that the contract should be for lawful and determined corporeal property.<sup>38</sup>

The jurists have formulated various definitions of Ijarah having regard to its principle features. The definitions from Hanafi, Maliki, Shafi and Hanbali schools are as follow:

**i) Hanafi Definition:**

The Hanafi school of thought defines Ijarah as:

“It is contract on usufructs for a known consideration”.<sup>39</sup>

**ii) Shafi Definition:**

The Shafi school of thought defines Ijarah as:

“It is a contract on a known and permissible benefit in exchange of a known return.”<sup>40</sup>

**iii) Maliki Definition:**

The Maliki school of thought defines Ijarah as:

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<sup>38</sup> Cf. Abd al-Rahman al-Jaziri, *Kitab al-Fiqh 'ala al-Madhahib al-Arba'ah*, n.d. III, [Cairo: Al-Maktabah al-Tawfiqiyah], 86-90.

<sup>39</sup> Kasani, *bada'I al sanai, fi tarteeb al-sharai*, vol. 4 (Cairo: sharikah al-matbuhaat al-islamiyyah), 174.

<sup>40</sup> Shirbini, *Mughni al- Muhtaj*, Sharikah wa-Matba'h Mustafa al Babi al- Halabi, vol. 2, (Cairo, 1933), 332.

"It is an alienation of lawful usufructs for a fixed charge for a fixed period". For the Maliki Ibn Rushd says; "Ijarah resembles a sale contract whereby price and use are exchanged."<sup>41</sup>

**iv) Hanbali Definition:**

The Hanbali school of thought defines Ijarah as:

"Ijarah is contract for the lawful and defined use of a lawful and determined corporeal object for a specific period of time. It is also defined as providing a defined work for a fixed price".<sup>42</sup>

Thus the definitions given by four school of thought clearly shows that Ijarah is not the complete transfer of the property but in fact it is a partial transfer in exchange of money which could be in form of rent or payment for hiring services. The purpose of Ijarah should be the transfer of usufruct not the property itself as it is in the contract of sale.

Ijarah is validated by the Qur'an, Sunnah, and general consensus (ijma'). Several verses are found in the Qur'an like al-Kahf, 77 : al-Qasas, 26 : al-Talaq, 65-6, on the worker's entitlement to a wage where references are also made to the practices of previous Prophets on Ijarah, thus indicating that Ijarah represents an occasion of stability in the Qur'an. References also occur in hadith to Ijarah and the employer-employee relations, for example, the instruction, in symbolic terms, to the employer to "pay the employee his wages before the sweat of his brow dries up". Whereas the Qur'an and Sunnah only refer to Ijarah as an employment contract, the companions of the Prophet

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<sup>41</sup> Ibn Qudama, *Muwaffaq al Din al- Mughni Dar al- Fikr*, vol. 5 (Beirut: 1404/1984), 398.

<sup>42</sup> Mansur ibn Yunus Bahuti, *Al Rawd al-Murbi*, [Matbah Ansar al sunnah al Muhammadiyyah, 1366 H], 214.



practiced Ijarah, in the sense of employment as well as rental of real property.<sup>43</sup> The companions (Shahaba-e-Kiram) of the Holy Prophet (peace be upon Him) practiced all lawful forms of Ijara, and Sa'ad ibne Abi Waqqas reported that in the age of Holy Prophet (peace be upon Him) the owners of the lands used to let their lands on rent.<sup>44</sup> The validity of Ijarah is thus upheld by conclusive ijma' of the companions, as well as general custom ('urf) among Muslims that prevails to this day.

#### **1.6.1 Some important principles of Ijarah:**

- i) The agreement of Ijarah can have an effect for a future date, unlike the contract of sale. Thus, it is different from Murabaha.<sup>45</sup>
- ii) Rent ought to be charged after the delivery of the leased asset to the lessee. If the supplier has delayed the delivery after receiving the full price, the lessee should not be liable for the rent of the period of delay.<sup>46</sup>
- iii) Only recognized, valuable and countable objects can be subject matter of a lease, consumable things cannot be leased out. Anything which cannot be used without consuming cannot be leased out; e.g., wheat, money etc.<sup>47</sup>

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<sup>43</sup> Mohammad Hashim Kamali, "A Shari'ah Analysis of Issues in Islamic Leasing", *JKAU: Islamic Economics*, Vol. 20, No. 1, (Kuala Lumpur: International Islamic university Malaysia (IIUM) 2007 A.D./1428 A.H.), 4.

<sup>44</sup> M. Javeed Pannni. "Leasing in Pakistan".

<sup>45</sup> Dr. Usmani, Muhammad Zubair. Sharia Advisor

Muslim Commercial Bank Ltd (Karachi: Jamia Darul Uloom)

<http://www.alhudacibe.com/images/Presentations%20on%20Islamic%20Banking%20and%20Finance/Ijarah/Ijara%20%20by%20Zubair%20Usmani.ppt>, Last visited: 25-12-09.

<sup>46</sup> Al-Mughni, 454.

<sup>47</sup> Wahbah Zuhayli, *Al-Fiqh al-islami Wa adillahtohu* [Damascus, Dar ul Fikr, 1984] 3809.

Usufruct is to be transferred to another person for an agreed price, at an agreed consideration, not the ownership,<sup>48</sup>

- iv) If the lessor, on the specified date in the Ijarah contract, fails to deliver the asset to the lessee, no rental is owed for the period between the contract date and the date of actual delivery, and the rental should be condensed consequently, unless it is agreed that the lease be extended by an corresponding period after its actual termination date.<sup>49</sup>
- v) The lessor is liable to be compensated for every harm to the leased asset caused by any misuse or carelessness of the lessee.<sup>50</sup>
- vi) The amount of rent must be determined at the time of contract for the whole period of lease. It is permissible that different amounts of rent are fixed for different phases during the lease period, provided that the amount of rent for each phase is specifically agreed upon at the time of affecting a lease.<sup>51</sup>

Rental will be charged when the Leased asset is handed over to the lessee.<sup>52</sup>

- vii) If the lessee shatters any term of the agreement, the lessor has a right to end the lease contract unilaterally. If not then it can be terminated through mutual consent only. However, in such a case he cannot charge rentals of remaining period. Further more, the destruction of the asset

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<sup>48</sup> Shams-Uddin Muhammad Bin Abbi Abbas, *Nihayatyl-Muhtaj-Ila-Shar-Al-Minhaj* (Dar-Ul-Fikar, 1984) 5, 298.

<sup>49</sup> Shariah Standards, Accounting and Auditing Organization for Islamic Financial Institutions, AAOIFI. (Bahrain: Manama), 141.

<sup>50</sup> Ibid

<sup>51</sup> Dr. Usmani, Muhammad Zubair. *Sharia Advisor* Muslim Commercial Bank Ltd (Karachi: Jamia Darul Uloom).

<sup>52</sup> *Zuhili*, 3823.

also terminates the lease. In the event of lessee's death the lease will also be terminated.<sup>53</sup>

viii) In the case of the Ijarah, the lessor assumes the full risk of the whole leased asset. If the asset is damaged during the "Ijarah period", the lessor will suffer the loss. Likewise, if the leased asset loses its usufruct without any exploitation or carelessness on the part of the lessee, the lessor cannot claim the rent. The lessor may take out permissible insurance on the leased asset and such insurance expenses must be borne by the lessor. The lessor may also bestow to the lessee the task of taking out insurance at the lessor's expense.<sup>54</sup>

## **1.7 THE AUTO INDUSTRY IN PAKISTAN**

Auto sector is the world's largest sector. From the world's vehicle assembly lines around 200,000 vehicles are rolled out daily where cars are a dominant item. Thus we can say that this industry is a driver of the economic growth which has multiple impacts on the economy. In the engineering sector, the automobile industry is termed as the mother of all the industries, as it integrates almost all the engineering features whether it's electrical mechanical or technical. The annual size of automotive trade in the world has grown to a

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<sup>53</sup> *Zuhli*,3823.

<sup>54</sup> Shariah Standards.Accounting and Auditing Organization for Islamic Financial Institutions,AAOIFI. (Bahrain:Manama),142.

massive level of over US\$ 1234 billion<sup>55</sup>, which accounts for about 7.8 per cent of the world trade<sup>56</sup>.

The auto sector in Pakistan played an important role in the growth and development of the local economy in terms of revenue generation, foreign exchange, technology transfer and human resource development. According to the figures of 2006-07 there were 82 vehicle assemblers in the in the passenger car industry, buses, trucks, 2/3 wheelers, light commercial vehicles and tractors.<sup>57</sup> The total investment in the sector was over Rs.98 billion with total employment over 192,000.<sup>58</sup> This industry played an important role in the large scale manufacturing industry resulting in over \$ 1 billion annual foreign exchange savings.<sup>59</sup>

#### **1.7.1 The escalation of Auto Automobile Industry in Pakistan:**

It would not be a good idea to provide here year to year progress of auto industry in Pakistan from its beginning but yes it would be pertinent to mention here that in 1949 General Motors and Sales introduced Vauxhall cars and Bedford trucks, and Ford trucks were introduced by Ali Automobiles in the same year. Then in 1972, this industry got nationalised and Pakistan Automobile Corporation (PACO) formed. PACO was finally able to implement its

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<sup>55</sup> "Merchandise trade by product", *International trade Statistics*, (world trade organization, 2009), [http://www.wto.org/english/res\\_e/statis\\_e/its2009\\_e/section2\\_e/ii01.xls](http://www.wto.org/english/res_e/statis_e/its2009_e/section2_e/ii01.xls) (accessed February 05, 2010).

<sup>56</sup> Ibid.

<sup>57</sup> "Historical data: Production (P) & Sale (S) of Vehicle From 1995 onward", (official website of PAMA), <http://www.pama.org.pk/historicaldata.htm> (accessed January 02, 2010).

<sup>58</sup> "Investment and employment" (official website of PAMA), <http://www.pama.org.pk/investmentnemployment.htm> (accessed January 02, 2010).

<sup>59</sup> "Production in July 2004", (official website of PAMA), <http://www.pama.org.pk/productionjuly2004.htm> (accessed January 02, 2010).

programmes to develop the automobile industry after 1979. In 1992, under the privatization programme, many PACO units were privatised.<sup>60</sup>

In 1994 Pakistan Automotive Manufacturers Association (PAMA) was formed whose first AutoExpo<sup>61</sup> was held in Islamabad. As the economy of Pakistan in 2003 was at take off stage so was the Auto industry.<sup>62</sup> I would like to mention here some important names of the production companies who really contributed in the escalation of auto mobile industry, these are Pak Suzuki limited, Indus Motor Company limited (IMCL) and Honda Atlas Cars Pak Ltd.

### **1.8 CONCLUSION**

The concept of lease is 4,000 yrs old [while in Pakistan it developed in 1985]. It is an effective method of business in the commercial world. This method gained impetus because of its similarity with the Islamic mode of financing. Its equivalent in Islamic law is Ijarah (hire) which means the sale of benefits or services. From a single leasing company in 1985, the total numbers of leasing companies at present stands at 33 companies and 8 leasing modarabas.<sup>63</sup> We have different laws in Pakistan but the law governing leasing is the companies (II amendment) ordinance 2002, part VIII A (containing provisions of section 282A to 282M) relevant to matters pertaining to the establishment and regulation of NBFCs. Regulations in whatever form they come implicitly imply prudence. Discipline and Code of Conduct is a pre-requisite for curbing over-ambitious attempts and keeping things within judicious bonds. The need for

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<sup>60</sup> Balvinder Singh Lahori, "A brief summary of Pakistan's auto industry since 1947", December 27, 2008, <http://www.pro-pakistan.com/2008/12/27/a-brief-summary-of-pakistans-auto-industry-since-1947/> (accessed Nov 18, 2009).

<sup>61</sup> The PAMA Expo was held in Islamabad on 12<sup>th</sup> and 13<sup>th</sup> May, 2003.

<sup>62</sup> Balvinder Singh, "A brief summary of Pakistan's auto industry since 1947",

<sup>63</sup> "lease", (Merriam-Webster Online Dictionary).

regulations has never been as important as it is today. The post privatization era will require formation of more rules. Whereas the Government's objective is to have a free economy it should not mean absence of controls. In Pakistan different banks and companies are offering conventional lease but due to its riba based factor the Islamic equivalent is used. This statement of mine means that the Islamic concept of lease [Ijarah] is not used under the true and proper rules of shariah.

## **CHAPTER 02**

### **SOCIO-ENVIRONMENTAL IMPACTS OF AUTO LEASING**

#### **INTRODUCTION**

Possessing a car has been a dream of people in Pakistan but attractive auto leasing schemes by the commercial banks has turned it into reality for those who can afford to pay money in installments to the bank concerned. A majority of people in Pakistan cannot afford to buy a car by paying lump sum but auto leasing policy of the banks has made it easy for a person to get a car by paying some percentage of the total amount while the rest is recovered through installments.

Once possessing a car was considered a luxury but now it has become a necessity. Despite this, motorists are unhappy and upset over traffic jams on city roads as they have to wait for hours to reach their workplaces, which have become a norm. Road infrastructure of the city is insufficient to accommodate ever-increasing number of vehicles. Besides, illegal encroachments, slow moving vehicles and disrespect for traffic rules are some of the reasons of traffic jam that I am going to analyze in detail in this chapter.

Now the questions arise, who is responsible for that? How to control traffic? Whether auto leasing schemes is causing traffic mess on roads or poor road infrastructure is the main cause? Chairman Anjuman-e-Tajiran Jail Road Ch. Muhammad Idrees says that "auto leasing is a facility which some people misused as they got many vehicles on one

identity card but now some banks have adopted strict policy on vehicle leasing. The local administration will have to expand road infrastructure to ensure smooth flow".<sup>1</sup>

## **OUTLINE OF THIS CHAPTER**

### **2.1 Ratio of cars leased from different banks:**

### **2.2 Impacts of increasing auto leasing**

#### **2.2.1 Economic impacts**

- 2.2.1.1 Sign Industry**
- 2.2.1.2 Industrial streamlining**
- 2.2.1.3 Road infrastructure**
- 2.2.1.4 Increase in Automobile costs**
- 2.2.1.5 Fuel Consumption**

#### **2.2.2 Social impacts**

- 2.2.2.1 Traffic congestions**
- 2.2.2.2 Heavy Traffic Jams**
- 2.2.2.3 Loss of Wild Life**
- 2.2.2.4 Accidents**
- 2.2.2.5 Parking Crises**
- 2.2.2.6 Jeopardy For Pedestrians**
- 2.2.2.7 Advent of housing societies/suburban society**

#### **2.2.3 Environmental impacts**

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<sup>1</sup> Zaheer Ahmad, "fast track," December 30, 2007, Sunday, <http://www.jang.com.pk/thenews/dec2007-weekly/nos-30-12-2007/she.htm> (accessed December 30, 2007).



- 2.2.3.1 Purging green belts
- 2.2.3.2 Pollution
- 2.2.3.3 Combustion process
- 2.2.3.4 Smog
- 2.2.3.5 Climate Change

### 2.3 Conclusion

#### **2.1 RATIO OF CARS LEASED FROM DIFFERENT BANKS**

According to news article published in The Sunday News United Bank of Pakistan (UBL) is leasing out 1800 to 2000 vehicles including cars and pick-ups monthly in 48 cities of the country. Seven persons out of one thousand have their own conveyance in Pakistan. As per the article all the branches of the bank located in Lahore lease out 450 vehicles every month. Only UBL, MCB, Dubai Islamic Bank and NIB are leasing out vehicles besides some private companies while the Standard Chartered Bank, Bank Alfalah, City Bank and PICIC have restricted their auto leasing plan due to recovery problem.<sup>2</sup>

United Bank Ltd has so far made Rs 23 billion investment in auto leasing scheme since May 27, 2004. According to international rules a road should be expanded when 30,000 vehicles come on road but unfortunately in Pakistan this could not be done. It is the responsibility of the local administration to provide best road facility to the citizens as they have to pay a number of taxes like sales tax, excise duty, toll tax,

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<sup>2</sup> Ibid.

income tax, token tax and other taxes while buying a car so a citizen pays the price of road use, then why doesn't government expand roads to facilitate motorists in the city. Right now the federal government is trying to expand the roads but all in vain, the best example is of zero point interchange. A year before the same road was expanded from 3 to 5 lane traffic but now it is again under a construction process, means 2yrs of road mess, traffic jam and pollution, whereas as this time its aggravating. Do you really think that this problem can be solved by expanding roads? How much they would extend the roads?

According to Transport Economist Tera Rana Muhammad Sarwar in 2006, a total of 146,4344 vehicles including 473,311 car/jeeps/wagons, 822,264 motorcycles/scooters, 11,439 trucks, 33,243 vans, 27,792 buses, 10,586 taxis, 58,024 rickshaws and 27,685 other vehicles were registered in Lahore.<sup>3</sup> When we talk of Islamabad the capital territory, the data collected from the excise and taxation department is eye opening too. Since the establishment of ETO that is from 1<sup>st</sup> of July 1980 till December 2010, 489,332 vehicles have been registered.<sup>4</sup> Following is the brief data regarding these registrations that includes ambulances, motorcars, jeeps, wagons, motor cabs and taxies, buses and minibuses, trucks, motor cycles, scooters, water tankers, vans, tractors and etc.

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<sup>3</sup> Ibid.

<sup>4</sup> The report is been acquired from the Excise and Taxation office Islamabad from the System Analysts office with the permission of System Analysts Mr. Bilal Azam on December 20<sup>th</sup>, 2010. I am thankful for their cooperation in this regard.

| <b>YEARS</b>             | <b>TOTAL VEHICLES REGISTERED</b> |
|--------------------------|----------------------------------|
| 01.07.1980 to 31.12.1980 | 412                              |
| 1981                     | 1354                             |
| 1982                     | 2479                             |
| 1983                     | 2836                             |
| 1984                     | 4968                             |
| 1985                     | 4480                             |
| 1986                     | 4283                             |
| 1987                     | 3559                             |
| 1988                     | 3707                             |
| 1989                     | 4609                             |
| 1990                     | 7426                             |
| 1991                     | 6920                             |
| 1992                     | 8586                             |
| 1993                     | 9291                             |
| 1994                     | 9459                             |
| 1995                     | 7960                             |
| 1996                     | 8473                             |
| 1997                     | 9510                             |
| 1998                     | 8894                             |
| 1999                     | 7367                             |
| 2000                     | 6434                             |
| 2001                     | 7384                             |
| 2002                     | 7682                             |
| 2003                     | 8793                             |
| 2004                     | 23809                            |
| 2005                     | 28816                            |
| 2006                     | 33148                            |
| 2007                     | 111840                           |
| 2008                     | 61603                            |
| 2009                     | 36082                            |
| 2010 till to date        | 47168                            |

From the above figure it is very much clear that during 2004 the rate of vehicles registered was three times the previous rate.

Transport Economist Tera Rana Muhammad Sarwar says

The growth rate of every type of registered vehicles has been increasing by 12 percent annually in Lahore city which may swell to 1,837,000 by June 2008 from 1,464,344 June 2006.

600 vehicles of every type are coming on roads per day. In 1985, the total number of vehicles in Lahore city was 146,097 which swelled to 238,143 in 1990, similarly the total number of vehicles in city was 469,339 in 1995 which swelled to 702,734 in 2000, it will further increased to 1,464,344 in 2006. <sup>5</sup>

## **2.2 IMPACTS OF INCREASING AUTO LEASING**

TH 8051

With the passage of time, in 20<sup>th</sup> century, the automobile industry rapidly developed and became normal passenger transport, which was previously in use of rich class. The development of this sector built upon the transport revolution from railway, and likewise brought changes in the infrastructure, manufacturing and legislation. The unavoidable effects of auto mobile in daily life have been a subject of great concern. A class of people on one end claim the car is a technology, which has brought about mouth less prosperity while the other class of people claim that it leads to a mode of urban and human interaction using large amount of polluting fuel and drains urban centers of their populations that leads to wide spread urban decay and ignorance of once proud and well-organized cities.

Car leasing is an easy way to get a car but besides this convenience there are different bad consequences of such rapidly growing car leasing as we see above. Following are some consequences which I would like to share with you;

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<sup>5</sup> Zaheer Ahmad, <http://www.jang.com.pk/thenews/dec2007-weekly/nos-30-12-2007/she.htm>.

**1. economic impacts**

- i. sign industry**
- ii. industrial streamlining**
- iii. road infrastructure**
- iv. increase in automobile costs**
- v. fuel consumption**

**2. social impacts**

- i. traffic congestions**
- ii. heavy traffic jams**
- iii. loss of wildlife**
- iv. accidents**
- v. parking crises**
- vi. Jeopardy for pedestrians**
- vii. Advent of housing societies/ suburban society.**

**3. environmental impacts**

- i. purging green belts**
- ii. pollution**
- iii. combustion process**
- iv. smog**
- v. climate change**

**Now I will give some facts related to these weaknesses.**

## **2.2.1 ECONOMIC IMPACTS:**

### **2.2.1.1 Sign Industry**

If we think for a while about the sign industry in Pakistan, one might think that it's prospering due to increase in traffic but its consequences are two fold. Previously there were road side signs but now with the increasing speed bigger signs and bill boards are used in order to attract the drivers or divert their attention, the city of Lahore is the best example of this situation. Big screens are now been introduced on major signals for the purpose of advertisement but besides adding up in the economy they divert the drivers attention and unfortunately some goes unnoticed. Even in the Federal Capital the Islamabad Traffic Police displayed many big roadside signs, which guides the driver but because of other advertisement the important messages goes unnoticed.

### **2.2.1.2 Industrial streamlining**

In Pakistan different industries sprang up that includes rubber industry, automobile manufacturing industry, petrol, deisel industry, service stations, CNG stations, motels and automobile insurance. Some of these totally devoted to automobile and some expanded from small value to eminent importance. Before the gasoline was a waste product but now government is taking actions, like gas load shedding, in order to secure its steady flow. The steel industry was already established, but the coming of the automobile created huge amounts of business for it.

### **2.2.1.3 Road Infrastructure**

Besides these industries the most visible is the increased amount of roads. But this is not possible without proper planning. Right now in Pakistan proper roads are under construction, work is done on this aspect but without planning. As one road is constructed twice in a year. For example, between 1921 and 1941, the United States spent US\$40 billion on roads, increasing the amount of surfaced road from 387,000 miles (619,000 kilometers) to over 1,000,000 miles (1.6 million kilometers) which doesn't include road widening.<sup>6</sup>

### **2.2.1.4 Increase in Automobile costs**

Karachi's population includes a large section of society that is on the low income sector. A recent study indicated that 70% of Karachi's population lives with a household income below Rs. 10,000 p.m. In comparison to income levels the cost of transportation is high, showing that more than half of families spend Rs. 500-1000 per month on transport.<sup>7</sup> Now the Government of Pakistan allowed the import of 2<sup>nd</sup> hand cars into Pakistan which will decrease the costs of automobile, but will result in another disaster.

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<sup>6</sup> "Effects of the automobile on societies", [http://www.newcartradeshows.com/Effects\\_of\\_the\\_automobile\\_on\\_societies.html](http://www.newcartradeshows.com/Effects_of_the_automobile_on_societies.html). (accessed December 20, 2009).

<sup>7</sup> "Population, Labour Force and Employment", Government of Pakistan, Ministry of Finance, 195, <http://www.finance.gov.pk/admin/images/survey/chapters/12-Population08.pdf> (accessed December 20, 2009).

### **2.2.1.5 Fuel Consumption**

In Pakistan oil/petroleum consumption increased from 4.3 million tones in 1980 to 15.6 million tones in 1997 showing an overall increase of 263%. Oil/petroleum consumption in the transport and industrial sectors has also increased by 188% from the levels of 1980-81.<sup>8</sup>

The increasing traffic congestion in Karachi will ultimately see the complete collapse of the system because no single factor has a greater impact on its productivity and sustainability. Its first impact is that to keep up service frequency more vehicles are required (for no extra revenue) and the second is that fuel consumption increases dramatically. The high consumption of fuel in Karachi is high due mainly to the impact of traffic congestion, driving behavior (fast acceleration-deceleration) and the 'old bus factor. Industry representatives claim that 20-30 million Rs. per year are paid from bus owners to the Police.<sup>9</sup>

The increase in the use of petroleum by the vehicles, bounds the country to import petroleum from west, which needs a great amount of money.

These days Pakistan is facing another dilemma of gas load shedding , as the major portion of gas is being used by automobiles that caused another big challenge to sprang up for this nation to be resolved.

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<sup>8</sup> "Pakistan clean Air Programme," Government of Pakistan, Ministry of Environment local government and rural development, [http://www.environment.gov.pk/PRO\\_PDF/PositionPaper/PAKISTAN%20CLEAN%20AIR%20PROGRAMME.pdf](http://www.environment.gov.pk/PRO_PDF/PositionPaper/PAKISTAN%20CLEAN%20AIR%20PROGRAMME.pdf) (accessed July 21, 2008).

<sup>9</sup> Ibid.



## **2.2.2 SOCIAL IMPACTS**

### **2.2.2.1 Traffic congestions**

Like other metropolises, Islamabad is also plagued by various civic problems such as traffic congestion. More than 400,000 vehicles travel the roads of the capital everyday. This number has increased sharply over the last few years due to easier and soft auto loans issued by banks, allowing an increasing number of middle class families to afford cars. Although the number of cars is increasing, roads and other traffic facilities remain the same. With the result that traffic congestion is increasing creating problems for motorists, commuters as well as pedestrians. The increasing traffic also adds to air and noise pollution. In 1998, the number of registered vehicles in Islamabad was just 60,000, whereas it crossed 360,000 by the end of 2005. However, the total number of cars in Islamabad is still higher as many cars in the capital are not registered there.

Long traffic queues on the roads especially during rush hours in the morning and afternoon have become a routine matter. The city administration's initiative to appoint trained traffic police in the capital, modeled on the Motorway Police, appears to be a futile exercise as no improvement has been reported in traffic conditions in the city.<sup>10</sup>

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<sup>10</sup> Irfan Ghauri, "City administration fails to solve traffic problems," Wednesday, April 26, 2006, daily times, [http://www.dailytimes.com.pk/default.asp?page=2006\04\26\story\\_26-4-2006\\_pg11\\_12](http://www.dailytimes.com.pk/default.asp?page=2006\04\26\story_26-4-2006_pg11_12) (accessed November 29, 2009).

### **2.2.2.2 Heavy Traffic Jams**

“Beginning in the 1940s, most urban environments in United States lost their streetcars, Cable cars, and other forms of light rail, to be replaced by diesel-burning motor coaches or buses. Many of these have never returned, though some urban communities eventually installed subways”.<sup>11</sup> Car leasing is a major factor of heavy traffic blocks in the country. The roads are same, limited and congested as before but the cars are increased due to which there is a slow flow of traffic.

Due to increase in traffic where there was one inspector deployed on the main signal was then accompanied by a DSP. In 1996 they deployed an SP and now there are 9DSP's and 3SP's on the main signal. Previously there were total 560 members of Rawalpindi traffic police but now it has increased to 1300 people. The main areas of traffic block are raja bazaar, city sadar road and Murree road near fresco sweets. <sup>12</sup>

Same is the condition of whole of country because of increased car leasing.

### **2.2.2.3 Loss of Wild Life**

With increased road-building came loss of habitat for wildlife on a massive scale. But here we are not concerned with this area.

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<sup>11</sup> “Effects of the automobile on societies”, available at: <http://www.answers.com/topic/effects-of-the-automobile-on-societies> [accessed July 07, 2007].

<sup>12</sup> This data has been acquired from Muhammad Rana Yameen, Reader SP traffic Rawalpindi on July 20, 2008.

#### 2.2.2.4 Accidents

Due to heavy traffic on roads there are many accidents reported daily.

I have collected following data of last 5 years from the computer/ record branch of traffic police head office Islamabad;<sup>13</sup>

#### COMPARATIVE STATEMENT OF TRAFFIC ACCIDENTS IN 2005-06

| MONTHS       | FATAL      |           | NON. FATAL |            | DIED       |            | INJURED    |            |
|--------------|------------|-----------|------------|------------|------------|------------|------------|------------|
|              | 2005       | 2006      | 2005       | 2006       | 2005       | 2006       | 2005       | 2006       |
| January      | 12         | 8         | 9          | 15         | 12         | 8          | 22         | 28         |
| February     | 5          | 12        | 10         | 12         | 5          | 12         | 15         | 16         |
| March        | 9          | 14        | 18         | 32         | 11         | 21         | 20         | 40         |
| April        | 14         | 7         | 9          | 15         | 28         | 7          | 38         | 11         |
| May          | 14         | 8         | 12         | 8          | 21         | 20         | 32         | 17         |
| June         | 8          | 8         | 16         | 10         | 9          | 10         | 19         | 20         |
| July         | 11         | 8         | 14         | 12         | 10         | 8          | 24         | 11         |
| August       | 10         | 6         | 9          | 15         | 14         | 6          | 14         | 20         |
| September    | 14         | 4         | 15         | 13         | 15         | 4          | 21         | 11         |
| October      | 14         | 6         | 23         | 15         | 14         | 7          | 26         | 34         |
| November     | 15         | 9         | 15         | 12         | 18         | 9          | 24         | 20         |
| December     | 13         | 5         | 22         | 18         | 14         | 5          | 26         | 21         |
| <b>TOTAL</b> | <b>139</b> | <b>95</b> | <b>172</b> | <b>177</b> | <b>171</b> | <b>117</b> | <b>281</b> | <b>246</b> |

#### COMPARATIVE STATEMENT OF TRAFFIC ACCIDENTS IN 2007-08

| MONTHS    | FATAL |      | NON. FATAL |      | DIED |      | INJURED |      |
|-----------|-------|------|------------|------|------|------|---------|------|
|           | 2007  | 2008 | 2007       | 2008 | 2007 | 2008 | 2007    | 2008 |
| January   | 7     | 6    | 14         | 7    | 7    | 6    | 18      | 9    |
| February  | 5     | 1    | 12         | 1    | 7    | 1    | 20      | 2    |
| March     | 14    | 6    | 11         | 7    | 16   | 6    | 40      | 12   |
| April     | 5     | 8    | 2          | 9    | 5    | 9    | 3       | 8    |
| May       | 4     | 5    | 3          | 14   | 5    | 5    | 2       | 22   |
| June      | 7     | 3    | 2          | 6    | 7    | 3    | 8       | 4    |
| July      | 6     | 7    | 5          | 10   | 6    | 10   | 7       | 21   |
| August    | 4     | 4    | 8          | 7    | 4    | 5    | 25      | 4    |
| September | 2     | 10   | 1          | 15   | 2    | 11   | 1       | 11   |

<sup>13</sup> Mr. Abdul Rashid, Incharge computer branch of Islamabad traffic police helped in providing me the relevant data with the prior permission/ approval of the present SP ITP on November 12, 2009.

|              |           |           |           |            |           |           |            |            |
|--------------|-----------|-----------|-----------|------------|-----------|-----------|------------|------------|
| October      | 1         | 6         | 3         | 6          | 1         | 6         | 2          | 3          |
| November     | 1         | 4         | 5         | 17         | 1         | 4         | 5          | 12         |
| December     | 2         | 9         | 4         | 9          | 2         | 9         | 6          | 7          |
| <b>TOTAL</b> | <b>58</b> | <b>69</b> | <b>70</b> | <b>108</b> | <b>63</b> | <b>75</b> | <b>137</b> | <b>115</b> |

**COMPARATIVE STATEMENT OF TRAFFIC ACCIDENTS IN 2009 [till September]**

| <b>MONTHS</b> | <b>FATAL</b> | <b>NON FATAL</b> | <b>DIED</b> | <b>INJURED</b> |
|---------------|--------------|------------------|-------------|----------------|
| January       | 4            | 6                | 4           | 3              |
| February      | 13           | 6                | 12          | 6              |
| March         | 5            | 5                | 5           | 3              |
| April         | 7            | 15               | 12          | 15             |
| May           | 5            | 9                | 4           | 8              |
| June          | 0            | 11               | 0           | 10             |
| July          | 14           | 1                | 14          | 0              |
| August        | 12           | 6                | 11          | 5              |
| September     | 14           | 9                | 15          | 10             |
| <b>TOTAL</b>  | <b>74</b>    | <b>68</b>        | <b>77</b>   | <b>60</b>      |

This ratio shows that there were total 80 accidents reported in May 2008 only in the area of Rawalpindi. But this is not the situation only in Rawalpindi but in the city of Lahore and Karachi same situation prevails.

**2.2.2.5 Parking Crises**

Increasing traffic in Pakistan is not just making things difficult on the road but off the road as well. Limited space and an absolute lack of civic sense is resulting in nothing less than a severe parking crisis.<sup>14</sup>

The main reason for this mess is that more than 500 cars being booked on a daily basis, you do the math and you'll get the gigantic number of cars plying on our roads. This figure is minus the vehicles of public

<sup>14</sup> Lubna Jerar Naqvi, "Parking crises" (November 19, 2006), <http://www.jang.com.pk/thenews/nov2006-weekly/nos-19-11-2006/kol.htm> (accessed August 05, 2008).

transport and motorcycles that take up space as well. Thus the picture is extremely scary especially since our roads are in no condition to bear the burden and because of the fact that there is next to no place to park so many vehicles.<sup>15</sup>

#### **2.2.2.6 Jeopardy For Pedestrians**

Another change brought about by the automobile is that modern urban pedestrians must be more alert than their ancestors. In the past, a pedestrian had to worry about relatively slow-moving streetcars or other obstacles of travel. With the proliferation of the automobile, a pedestrian has to anticipate safety risks of automobiles at high speeds.<sup>16</sup>

The loss of pedestrian-scale villages has also disconnected communities. People have less contact with their neighbors and rarely walk unless they place a high value on exercise. In areas with high crime rates, people who exercise usually prefer to do so in the safety of their home or in subscriber-only fitness clubs (which they drive to and from). Now People visit a large wholesale store in large vehicles.

Ultimately increased vehicles on roads, created a great risk for the pedestrians a risk which can result in the loss of their lives.

The data in the following table shows accidents of pedestrians with the vehicles from 2002-2009:-

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<sup>15</sup> Ibid.

<sup>16</sup> See "Population, Labour Force and Employment", Government of Pakistan, Ministry of Finance, 195, <http://www.finance.gov.pk/admin/images/survey/chapters/12-Population08.pdf> (accessed December 20, 2009).

| <b>YEARS</b>             | <b>DIED</b> | <b>INJURED</b> | <b>TOTAL</b> |
|--------------------------|-------------|----------------|--------------|
| <b>2002</b>              | 52          | 41             | 93           |
| <b>2003</b>              | 71          | 41             | 112          |
| <b>2004</b>              | 55          | 26             | 81           |
| <b>2005</b>              | 87          | 68             | 155          |
| <b>2006</b>              | 47          | 65             | 112          |
| <b>2007</b>              | 28          | 37             | 65           |
| <b>2008</b>              | 47          | 53             | 100          |
| <b>2009 (till march)</b> | 18          | 14             | 32           |

### **2.2.2.7 Advent of Housing Societies/ suburban society**

Because of the automobile, the housing societies began to develop rapidly, which increased the area of the city. The best example is of Sihala area which was not under ICT but now it is Part of it. The dwellers started looking for areas far from traffic noise and resulted in high integration in city neighborhoods. The automobile caused the transference of cities, segregating land use and ethnicities, while increasing the environmental footprint of their residents.

### **2.2.3 ENVIRONMENTAL IMPACTS**

In 1990's, the environmental problems arising out of transport system have created global issues one of them is global warming.<sup>17</sup>

#### **2.2.3.1 purging green belts**

Lahore and Karachi have now become a city planning disasters, as greenery that adds up in the beauty of an area is no more there.

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<sup>17</sup> Peter Freund and George Martin, "Driving south: the globalization of auto consumption and its social organization of space", Montclair State University Department of Sociology, (1999), 231, <http://www.chss.montclair.edu/~hadisb/drivout.pdf> (accessed December 01, 2009).

Islamabad, the federal capital is also now following the same foot steps of the cities already obscured into this environmental disaster.

### **2.2.3.2 pollution**

Experts consider that 60-70% cause of urban air degradation is due to vehicles.<sup>18</sup>

The single biggest threat to environment in Karachi is from traffic pollution. And am sorry to note that nearly all responsibility for traffic pollution lies on public transport including Government buses, private buses and mini buses, contract carriers and rickshaws. Every time I drove from North Nazimabad to center city, I got headache.<sup>19</sup>

In Pakistan one of the reasons for pollution is traffic. The diesel fumes emitting out of it cause stress. This could have damaging long-term effects on brain function in people living in areas with high traffic pollution. Small particles of soot, or nano particles, can travel up the nose and lodge in the brain. It is conceivable that this could interfere with normal brain function and information processing.<sup>20</sup> According to a study published in the issue of the American journal of respiratory and critical care medicine, infants exposed to traffic pollution are at increased risk for asthma.<sup>21</sup>

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<sup>18</sup> Ibid.

<sup>19</sup> Dr. Basharat Hasan Bashir, "traffic pollution in Pakistan," March 10, 2008, [http://groups.google.com.pk/group/soc.culture.pakistan/browse\\_thread/thread/7da64d2a19b0398/efa90a98a212024d?hl=en&lnk=st&q=traffic+pollution+in+pakistan#efa90a98a212024d](http://groups.google.com.pk/group/soc.culture.pakistan/browse_thread/thread/7da64d2a19b0398/efa90a98a212024d?hl=en&lnk=st&q=traffic+pollution+in+pakistan#efa90a98a212024d) (accessed July 23, 2008).

<sup>20</sup> Ibid.

<sup>21</sup> 'Traffic, dust linked to asthma in kids', The News: City news, December 06, 2009, 13.

### 2.2.3.3 Combustion Process

There are two kinds of emissions from a vehicle, one is through complete combustions and other one is caused due to incomplete combustion. Actually the combustion should be complete producing carbon dioxide, water and nitrogen but this is ideal situation doesn't prevail in Pakistan. There are so many vehicles on the road that are going through incomplete combustion resulting in the emission of unburned Hydrocarbons<sup>22</sup>, Nitrogen Oxides,<sup>23</sup> Carbon Mono Oxide<sup>24</sup>, Carbon Dioxide and water.

In order to decrease the quantity of carbon monoxide emissions, many cars in US, during 1975, were equipped with the catalytic converters to convert CO into C<sub>2</sub>O while using unleaded fuel. This is because the lead coats the chemicals in the converter, which renders them ineffective. These converters are installed in the exhaust line between the exhaust manifold and the muffler. The action of these converters engrosses one reduction and two oxidation reaction. The converter is creased with three chemicals that are aluminum oxide, platinum and palladium, which cause carbon monoxide and hydrocarbons to form water vapors and

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<sup>22</sup> Hydrocarbon emissions are fragments of fuel molecules, only partially burned. Hydrocarbons react in the presence of nitrogen oxides and sunlight to form ground-level ozone, a major component of smog. Ozone irritates the eyes, nose, throat and damages the lungs. A number of exhaust hydrocarbons are also toxic, some with the potential to cause cancer.

<sup>23</sup> Under high pressure and temperature conditions in an engine, nitrogen and oxygen atoms react to form nitrogen oxides.

<sup>24</sup> Carbon monoxide (CO) is a colorless, odorless, poisonous gas, a product of incomplete burning of hydrocarbon-based fuels. Carbon monoxide consists of a single carbon atom and a single oxygen atom linked together (CO), the product of incomplete combustion of fuel.



carbon monoxide<sup>25</sup>. There is also another type of converters with additional lining of platinum and rhodium that reduces nitrogen oxide emission.<sup>26</sup> Previously U.S. Environmental Protection Agency (EPA) viewed C2O as a product of perfect combustion. But now concerns it a pollution concern. It is a greenhouse gas that traps the earth's heat and contributes to global warming.<sup>27</sup>

Second solution for the problem were the on board computers to help optimize the efficiency of the catalytic converters. In this process, oxygen sensor is positioned in such a way to help maintain 14.7:1 mixture of air with the fuel for optimal combustion.<sup>28</sup>

Here I would like to quote some important lines from the famous judgment of Lahore High Court and that;

The air pollution is largely the result of continuous input of toxic pollutants, discharged by an increasing number of vehicles. The pollutants include lead and unburnt hydrocarbons, 2,4, benzopyrene, carbon mono-oxide, nitrogen oxide from the combustion of petrol and cadmium from the wearing of tires. A cloud of smoke builds up towards the evening over all crossings in the city centers all over the country. With traffic jams becoming common now; the carbon

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<sup>25</sup> After reaction the quantity of CO<sub>2</sub> is comparatively less as without the reaction.

<sup>26</sup> Carbon Monoxide: Carbon Monoxide Emissions, Global Edition, [http://www.carbonmonoxidekills.com/26/carbon\\_monoxide\\_emissions/](http://www.carbonmonoxidekills.com/26/carbon_monoxide_emissions/) [accessed 23rd October 2010].

<sup>27</sup> The Environment: Green House Gases, Environmed Research Inc. British Columbia Canada, <http://www.nutrained.com/environment/greenhouse.htm> [accessed 23rd October 2010].

<sup>28</sup> A zirconia- type oxygen sensor produces 0.5 volt signal to the engine compute when 14.7:1 ratio is present. If the ratio is higher the volt signal is decreased to 0.2 while lower ratio increases the voltage to 1 volts.

mono-oxide level reaches alarming proposition of 40 to 80 pin continuously for almost 1 to 1.5. minutes in the micro environment of all the traffic congestion points, specially at the middle of the roads. Diesel oil, furnace oil and coal, used for energy production contains large quantities of sulphur than desired. The stroke nuisance has been vehemently protested in most American cities and there has, accordingly been a shift towards elimination of the smoke nuisance by substituting less smoky fuel and by enforced employment of combustion practices designed to eliminate smoke.<sup>29</sup>

This high traffic contributes to the growing volume of noise pollution Risk of heart attacks among people exposed to excessive noise, and they are finding new evidence of noise's long-suspected ill effects on sleep and emotional well-being. An 11-year research project involving more than 1,000 heart patients found that noise, especially when it disrupts sleep; produces stress hormones that accelerate aging and heart disease. Normal traffic generally produces noise of about 70 decibels <sup>30</sup>, while heavy traffic reaches levels of about 90 decibels. Unlike water and air pollution, noise emissions dissipate quickly, and their long-term influences on society are harder to track.<sup>31</sup>

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<sup>29</sup> Mrs. Anjum Irfan v. Lahore Development Authority, P L D 2002 Lahore 555.

<sup>30</sup> unit used in the comparison of sound levels or power levels of electrical signals

<sup>31</sup> Carol J. Williams, "Environment" (March 27, 1999), [http://groups.google.com.pk/group/talk.environment/browse\\_thread/thread/dece5be921994ca5/dd57c082f5100fcf?hl=en&lnk=st&q=effects+of+heavy+traffic+on+pollution#dd57c082f5100fcf](http://groups.google.com.pk/group/talk.environment/browse_thread/thread/dece5be921994ca5/dd57c082f5100fcf?hl=en&lnk=st&q=effects+of+heavy+traffic+on+pollution#dd57c082f5100fcf) (accessed July 20, 2008).

Studies in the past have found that people living near airports or working in noisy atmosphere have an increased risk of high blood pressure and heart attack.

Researchers from Sweden found that middle aged adults living near the noisiest and busiest roads were nearly twice as likely to have high blood pressure. This could be attributed to the fact that noise signals the body that it's in a stressful situation and chronic exposure may cause long-term increases in stress hormone production, heart rate and blood pressure.<sup>32</sup>

These facts make it very clear that because of heavy traffic there is an increase in pollution and this includes both air and noise pollution. The air pollution ultimately creates smog on roads, which we find in shape of winter<sup>33</sup> and summer smog.<sup>34</sup>

#### **2.2.3.4 Smog**

The word smog had been invented from a combination of two words fog and smoke. Smog is a mixture of various gases with water vapors and dust.<sup>35</sup>

Smog is a mixture of pollutants with ground-level ozone as the main component. Ground-level ozone is formed when nitrogen oxides and volatile organic compounds interact in the presence

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<sup>32</sup> 'Traffic noise raises the risk of high BP: Study', *The News*, Sunday, December 20, 2009.

<sup>33</sup> for more details See Garrett Nagle, "Air quality", *Focus on Geography: Hazards* (Nelson Thornes, 1998), 98

<sup>34</sup> Ibid.

<sup>35</sup> S.A.J. Shirazi, "Health, Science & Technology" (January 28, 2007) <http://pakistaniat.com/2007/01/28/pakistan-lahore-haze-fog-smog-pollution/> (accessed July 17, 2008).

of sunlight. High up in the stratosphere,<sup>36</sup> ozone protects the earth from harmful ultraviolet rays, but at ground level, it can be a harmful air pollutant.<sup>37</sup>

About 95 per cent of nitrogen oxides that lead to the formation of smog are produced when we burn fuels in our cars and trucks, or generate energy using combustion engines, combustion turbines, industrial boilers and power plants.<sup>38</sup> Nitrogen oxides are related to other atmospheric problems such as climate changes and acid rain.<sup>39</sup> Volatile organic<sup>40</sup> compounds are also necessary to produce smog.<sup>41</sup>

Lahore is one of the cities with large number of registered vehicles, and many more coming and going every day from out of the city.<sup>42</sup> Due to the concentration of heavy traffic, emissions of smoke and carbon monoxide and nitrogen oxides are much greater than they are in adjoining rural areas.<sup>43</sup>

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<sup>36</sup> Layer of atmosphere above the troposphere, extending to about 50 Km from the earth's surface.

<sup>37</sup> "About smog," [http://www.ns.ec.gc.ca/weather/smog\\_faq.html](http://www.ns.ec.gc.ca/weather/smog_faq.html) (accessed July 19, 2008).

<sup>38</sup> Ibid.

<sup>39</sup> acid especially industrial waste gases, falling with rain; see generally John Watson, "Acid Rain," <http://pubs.usgs.gov/gip/acidrain/2.html> (accessed August 12, 2008).

<sup>40</sup> Changeable in mood; fickle; in chemistry a substance that can evaporate rapidly; see generally "Organic gases," (U.S. environmental protection agency, November 14th, 2007), <http://www.epa.gov/iaq/voc.html> (accessed August 08, 2008).

<sup>41</sup> See Carol J. Williams, "Environment" (March 27, 1999), [http://groups.google.com.pk/group/talk.environment/browse\\_thread/thread/dece5be921994ca5/dd57c082f5100cf?hl=en&lnk=st&q=effects+of+heavy+traffic+on+pollution#dd57c082f5100cf](http://groups.google.com.pk/group/talk.environment/browse_thread/thread/dece5be921994ca5/dd57c082f5100cf?hl=en&lnk=st&q=effects+of+heavy+traffic+on+pollution#dd57c082f5100cf) (accessed July 20, 2008).

<sup>42</sup> Shirazi, "Health, Science & Technology," <http://pakistaniat.com>. (accessed July 17, 2008).

<sup>43</sup> Ibid.

When an area becomes covered in smog, the people feel the effects immediately. Unlike other problems, which may be harder to understand and visualize, smog creates immediate problems that everyone will experience. One of which is respiratory ailments like asthma, bronchitis.<sup>44</sup> The American Lung Association notes that anywhere from 10,000 to 15,000 people are admitted to emergency rooms each year suffering ozone exposure related illnesses.<sup>45</sup> Children are especially susceptible to ozone related illnesses because on average they spend more time outdoors than adults and their airways are narrower than adults.<sup>46</sup>

Smog is not only a city problem. As smog levels increase, winds are carrying smog away from urban areas and harm people and ecosystems far away.<sup>47</sup>

Agriculture is also hurt by smog. Soybeans, wheat, tomatoes, peanuts, lettuce, and cotton are all subject to infection when exposed to smog.<sup>48</sup> This year Pakistan experienced dense level of smog.

### **2.2.3.5 Climate Change**

The polluted environment created by smoke coming out of the vehicles is a big problem but its subsequent are more dangerous and

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<sup>44</sup> Unstable form of oxygen with three atoms in a molecule.

<sup>45</sup> Shirazi, "Health, Science & Technology", <http://pakistaniat.Com>, [accessed July 17, 2008].

<sup>46</sup> Ibid.

<sup>47</sup> "Effects of smog,"

[http://library.thinkquest.org/26026/Environmental\\_Problems/smog\\_-\\_effects.html](http://library.thinkquest.org/26026/Environmental_Problems/smog_-_effects.html) (accessed July 19, 2008). See also G. Tyler Jr. Miller, *Living in the Environment*, (Belmont: Wadsworth Publishing Company, 1987), 125.

<sup>48</sup> Ibid.

have long lasting effects on the environment of this world. The government and the ministry of environment declared 2009 as the national year of environment.<sup>49</sup> This pollution created a climate change and the effects can be seen in Pakistan. The rising temperature and non consistent precipitation are feared to affect the people living in the poor areas, resulting in falling agricultural produce and rising sea levels. The study, conducted by the OXFAM in the different provinces in Pakistan, shows the problems of inhabitants and suggested more efforts to deal with this prominent risk.<sup>50</sup> According to an ADB announcement, no area is more vulnerable to climate change than Asia and the Pacific.<sup>51</sup>

The assessments of the impacts of climate change, found in the initial national communication on climate change issued by the ministry of environment in 2004, glaciers are expected to melt faster and less snow is expected to form in the mountains where our fresh water comes from<sup>52</sup>. The environs of developed countries should be impacted by climate change, since they are responsible for 72% of global carbon emissions.<sup>53</sup> So what do you think where Pakistan Stands? Won't it be affected with the climate change in developed countries? Is it strong enough to control these effects?

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<sup>49</sup> 'Rural poor more vulnerable to climate change', The news: city news, 22 Nov 2009, 19.

<sup>50</sup> Ibid.

<sup>51</sup> 'ADB organizes contest to encourage solutions', The News: Business, November 05, 2009, 18.

<sup>52</sup> 'The right choice on climate', The News: Opinion, September 25, 2009, 6.

<sup>53</sup> 'Correlates of climate change', The News: political economy, November 01, 2009, A7.

### **2.3 CONCLUSION**

Summing up this chapter, the facility of leasing cars these days brings different problems besides comfort but unfortunately the rate of problems is much higher. I am here concerned with the impacts of auto leasing that includes economic, social and environmental impacts. Record collected from the concerned departments shows increase in the number of vehicles on the road. The record also shows increase in the rate of road accidents of vehicles and pedestrians both. Where there was only one sergeant now are more than two sergeants on the same crossing. This is the condition of Islamabad the federal capital of Pakistan. Environment that is very much important for living beings is now in a deteriorating condition. The increasing number of automobiles on road increases the chemical emissions, which possess long lasting affects. If ICT is under such condition then what can one imagine about the other cities of this country?

## **CHAPTER 03**

### **PRESENT RULES AND REGULATIONS**

#### **INTRODUCTION**

The legal system of Pakistan and India has the same origin i.e. laws enacted in the areas of Pakistan and India during British rule. However, the environment laws were enacted in Pakistan until the late 1950s and in the first half of the 60s. Further the Environment Ministry was established in Pakistan in 1975, as a follow up of Stockholm Declaration of 1972. The development of environment law in Pakistan took its final shape, which started with the 1994 landmark decision of the Supreme Court of Pakistan in the Shehla Zia case in which Constitutional rights for people living close to source of pollution was established. These have been followed by several decisions of the provincial high courts that resulted in suspension of several polluting operations.<sup>1</sup>

In this chapter of my research I will analyze and discuss the prevailing laws regarding leasing companies in Pakistan, the traffic laws and their rules, and finally above all the environmental laws in Pakistan. There are certain international laws that I would refer here for the purpose of analyzing the whole subject or material or laws available on the present issue.

Following is the detailed outline of this chapter;

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<sup>1</sup> Dr. Shoaib Qadar and Athar Rafique Dogar, *Pakistan environmental laws and their compliance* (Lahore: Lahore Law Times Publications, 2002), 31-32.



## OUTLINE OF THE CHAPTER

### 3.1 National Laws

#### 3.1.1 Acts or rules related to leasing companies

#### 3.1.2 Laws related to the control of traffic on roads

#### 3.1.3 Environmental laws

##### 3.1.3.1 Environment laws enforceable in Pakistan

##### 3.1.3.2 The polluter Pays Principle

##### 3.1.3.3 Environmental laws related to air pollution:

##### 3.1.3.4 Environmental laws related to noise pollution

##### 3.1.3.5 National Environmental Quality Standards for motor vehicle exhaust and noise [NEQS]

##### 3.1.3.6 Implementation of International Standards

##### 3.1.3.7 European Union Environmental Legislation

### 3.2 Conclusion

### **3.1 NATIONAL LAWS**

1. Acts or rules related to leasing companies
2. Motor vehicle laws
3. Environmental laws

#### **3.1.1 ACTS OR RULES RELATED TO LEASING COMPANIES:**

##### **1. Companies Ordinance, 1984:**

Through the companies' ordinance (IIInd amendment) ordinance 2002, a new part VIII-A (containing provisions of section 282A- 282M)

has been inserted.<sup>2</sup> The provisions of part VIII-A of companies' ordinance applies to the companies carrying out the any one of the business of <sup>3</sup>(i) investment finance services,<sup>4</sup> (ii) leasing,<sup>5</sup> (iii) housing finance services,<sup>6</sup> (iv) venture capital investment,<sup>7</sup> (v) discounting services, (vi) investment advisory services,<sup>8</sup> (vii) asset management services.<sup>9</sup>

Section 282B talks about the powers to make rules.<sup>10</sup> all the Section 282C-M<sup>11</sup> do not talk about the effects of increasing car leasing. These provisions are related to the matters pertaining to the establishment and regulation of NBFCs.<sup>12</sup>

## **2. Leasing Companies (establishment and regulation) rules, 2000:**

We have not found any of the provisions regarding the elimination of effects of increasing car leasing. Now let's see if there is any rule in the leasing companies (establishment and regulation) rules, 2000. In view of the practical difficulties faced by leasing companies, in giving effect to their business transactions and preparation of accounts, the commission, in exercise of its powers conferred by section 282D of the companies' ordinance directs all leasing companies to conduct their business in conformity with the directions which the commission has

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<sup>2</sup> Nazir Ahmad Shaheen, *Practical Approach to the Companies Ordinance, 1984*, ed. 3 (Rwp: federal law house, 2007), 816.

<sup>3</sup> XLVII The Companies Ordinance, 1984 amend. 2002, § 282A.

<sup>4</sup> see the NBFC's (establishment and regulation) rules, 2003, § 2(xxviii).

<sup>5</sup> Ibid, § 2(xxix).

<sup>6</sup> Ibid, § 2(xxiii).

<sup>7</sup> Ibid, § 2(xxxix).

<sup>8</sup> Ibid, § 2(xkv).

<sup>9</sup> Ibid, § 2(iii).

<sup>10</sup> see XLVII The Companies' ordinance, 1984 amend. 2002, § 282A.

<sup>11</sup> see XLVII The companies' ordinance, 1984 amend. 2002.

<sup>12</sup> Nazir Shaheen, 816.

decided to issue for aforesaid NBFC. These regulations are called prudential regulations<sup>13</sup> for NBFCs.<sup>14</sup>

**3. Non Banking financial companies' (establishment and regulation) rules, 2003<sup>15</sup>:**

These rules and sections deal with NBFCs specially with regard to; (i) pre incorporation permission, (ii) incorporation, (iii) licensing, (iv) terms and conditions for operation, (v) removal of the director and other officer, (vi) superseding directors, (vii) special audit, (viii) inquiry, (ix) Amalgamation.<sup>16</sup>

Section 13 of said rules deals with the terms and conditions for undertaking leasing business.<sup>17</sup>

**3.1.2 LAWS RELATED TO THE CONTROL OF TRAFFIC ON ROADS**

Government may direct the provincial transport authority<sup>18</sup> or a regional transport authority<sup>19</sup> not to grant permit or to grant fresh permit to specified number of routes on which the corporation<sup>20</sup> is already operating motor transport.<sup>21</sup>

The motor vehicles ordinance, 1965 deals with the registration, licensing of vehicles, and transport control.

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<sup>13</sup> Highly careful regulations.

<sup>14</sup> Nazir Shaheen, 818.

<sup>15</sup> Nazir Shaheen, 827-28.

<sup>16</sup> Combine or unite to form one organization or structure.

<sup>17</sup> for more details see the NBFC's (establishment and regulation) rules, 2003, § 13.

<sup>18</sup> Constituted under XIX the motor vehicles ordinance, § 46 (1965).

<sup>19</sup> Ibid.

<sup>20</sup> It is the road transport corporation established u/s 70 of same ordinance.

<sup>21</sup> XIX the motor vehicles ordinance, § 45(3) (1965).

### **3.1.3 ENVIRONMENTAL LAWS**

#### **3.1.3.1 ENVIRONMENT LAWS ENFORCEABLE IN PAKISTAN**

The laws enforceable in Pakistan are of three types: The Constitution of Pakistan 1973 and the general laws of the country; the court judgment interpreting the citizens' rights under the Constitution, the Earth Common law and certain general laws of the country and the special laws, which directly or indirectly deal with environment issues.

The executive and legislative powers of the federal and provincial governments are defined in the 1973 constitution of Islamic republic of Pakistan. The relevant articles dealing with the protection of environment are articles 9, 14 and 184(3).

#### **3.1.3.2 THE POLLUTER PAYS PRINCIPLE**

There are different environmental inducements that are a result of single principle, which is 'Polluter Pays Principle' in short, PPP. This principle means that the cost of pollution generation should be paid by the polluter himself.<sup>22</sup> In simple the government is not liable for any such cost and it should be borne by those who cause it.

Its ultimate goal is to internalize the environmental externalities of economic activities, so that the prices of goods and services fully imitate the production cost. H. C. Bugge identified four versions of PPP in 1996: legally it promotes justice, economically it promotes efficiency, it promotes synchronization of international environmental policies and it

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<sup>22</sup> Muhammad Munir, *The polluter Pays Principle in International Environmental Policy and Law: Economic and Legal analysis*, (Islamabad Institute of legal studies, 2004), 1.

defines how to distribute costs within a state.<sup>23</sup> PPP is the recognized principle of International Environmental Law and is a fundamental principle of environmental policy of both European community and OECD<sup>24</sup>.

The PPP is normally implemented through two different approaches; first one is command and control<sup>25</sup> and second is market based<sup>26,27</sup>

The customary scope of PPP also includes accidental pollution prevention, control and clean up costs, which is also referred to as Extended Polluter Pays Principle.<sup>28</sup> According to European community council's recommendation No. 75/436, PPP also deals with the costs accrued during the measures taken for the prevention and control of pollution by public authorities. Under the command and control approach a state can impose certain targets through regulations in order to control the growing pollution for example NEQS that are discussed in the following paragraphs. There are many advantages and disadvantages of this approach as modern economists think it as inadequate from the

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<sup>23</sup> H. C. Bugge, 1996, *the principles of polluter pays in economics and law*, in E. Eide and R. van der Bergh (eds), *Law and Economics of the Environment* (Oslo: Juridisk Forlag, 1996), 36

<sup>24</sup> Stands for Organization for economic Co-operation and Development.

<sup>25</sup> This approach includes performance and technology standards.

<sup>26</sup> Market based instruments include pollution taxes, tradable pollution permits and product labeling.

<sup>27</sup> Vito De Lucia (Lead Author); Richard Reibstein (Topic Editor) "Polluter pays principle". In: *Encyclopedia of Earth*. Eds. Cutler J. Cleveland (Washington, D.C.: Environmental Information Coalition, National Council for Science and the Environment). [First published in the *Encyclopedia of Earth* August 22, 2008; Last revised Date October 17, 2010, [http://www.eoearth.org/article/Polluter\\_pays\\_principle](http://www.eoearth.org/article/Polluter_pays_principle) (accessed November 07, 2010).

<sup>28</sup> Munir Muhammad, 17.

economic point of view. If we see the prevailing law and order situation in Pakistan, unfortunately I would say the command and control approach is only present in books. But if we talk about market based approach, the economists think it as the best option for the pollution abatement. This can be implemented through charging the polluter with the total costs for the pollution abatement including the costs of the damage caused to the environment that is also known as the social costs. Secondly it is implemented through quantity mechanism also known as Tradable Discharge Permits (TDPs). Under TDPs, all the sources require a permit to emit. But if we analyze the emissions from automobiles in Pakistan then, which of the above approaches are more suitable? Is the present economic condition of Pakistan will allow us to take any risk in this regard?

#### 3.1.3.3 ENVIRONMENTAL LAWS RELATED TO AIR POLLUTION:

Following laws cover air pollution control;

- The Pakistan Penal code, 1860;<sup>29</sup>
- The Punjab local government ordinance, 1979.<sup>30</sup>
- Pakistan environmental protection council (procedure) rules, 1993
- The Pakistan environmental protection act, 1997.

#### 3.1.3.4 ENVIRONMENTAL LAWS RELATED TO NOISE POLLUTION

- **The motor vehicles ordinance, 1965 and the motor vehicle rules, 1969:** These rules require that vehicles shall not emit “any smoke,

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<sup>29</sup> see § 278.

<sup>30</sup> See § 512(L) and § 93(1) & (2).

visible vapor, grit, spark, ashes, cinders, or oily substance," the emission of which could be prevented or avoided by taking reasonable steps or the exercise of reasonable care, or endanger the safety of any other users of the road.<sup>31</sup> The motor vehicles rules, 1969 deal with the engine noises and horns. It requires all vehicles to be fitted with silence to reduce noise levels.<sup>32</sup> It states that all motor vehicles are maintained in a condition not to cause noise when in motion.<sup>33</sup> It bars the use of horns that produce harsh, shrill or alarming noise<sup>34</sup> and prohibits the use of horns or other audible warding devices, except to avoid imminent accident.<sup>35</sup>

### 3.1.3.5 NATIONAL ENVIRONMENTAL QUALITY STANDARDS FOR MOTOR VEHICLE EXHAUST AND NOISE [NEQS]

These NEQS are related to both noise and air pollution. In the certain standards are been set so as to control the air pollution caused due to the smoke and carbon monoxide emitted from the vehicles and the noise causing another side of pollution. According to NEQS for motor vehicle exhaust and noise, the standard for the smoke emission should be 40% which is to be compared with the Ringlemann<sup>36</sup> chart at a

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<sup>31</sup> See the motor vehicle rules, 1969, rule 163.

<sup>32</sup> Ibid, rule 155(1).

<sup>33</sup> Ibid, rule 158.

<sup>34</sup> Ibid, rule 154(1).

<sup>35</sup> Ibid, rule 252.

<sup>36</sup> Ringlemann smoke chart fulfills an important need for the smoke abatement and in certain cases in the fuel combustion. The Ringelmann Smoke Chart, giving shades of gray by which the density of columns of smoke rising from stacks may be compared, was developed by Professor Maximilian Ringelmann of Paris. For details See Ringelmann Smoke Chart (Revision of IC 7718) By Staff US Department of Interior Bureau of Mines, May 1967, available at:

distance of 6 meters or more. Similarly the maximum emission limit of the carbon Monoxide from the new vehicles is 4.5% and from used vehicles is 6%. The 3<sup>rd</sup> parameter is noise emission from the vehicle which should be 85 db (A) that should be measured at 7.5 meters from the source.<sup>37</sup>

### 3.1.3.6 IMPLEMENTATION OF INTERNATIONAL STANDARDS

In Pakistan if we talk about emission standards then it would be fair to say that even the emission standards maintained by the legislations are not followed then how come we can adopt international standards. Talks are in progress in adopting euro 5 and euro 6 standards. Let us now discuss these standards. Euro 5 and 6 are the regulation proposed by the European commission, which tightens emission limits of particles and of NO<sub>x</sub> for new cars. According to euro 5 standards the particulate emissions from diesel cars would be slashed by 80% and nitrogen oxides by 20%. This standard is proposed in order to further improve the air quality in Europe. The main elements of Euro 5 were 80% reduction in particulate matter emissions and 20% in NO<sub>x</sub> emissions in diesel cars, in petrol cars 25% reductions of NO<sub>x</sub> and Hydrocarbons emissions and introduction of a particulate emission limit for lean burn direct injection petrol cars and finally for vans , 90% reduction in particulate matter and

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<http://fusiforme.home.mindspring.com/dwnlds/Ringelmann%20Chart.pdf> IC bureau of mines information circular 8333 (accessed Dec 05, 2010).

<sup>37</sup> National environmental quality standards for motor vehicle exhaust and noise.



20% reduction in NOx emissions.<sup>38</sup> In Europe Euro 5 is adopted and European commission proposed for Euro 6 to come into force in 2014 to 2015.<sup>39</sup>

The results of the modeling suggested for euro 6 standards comprises of following key aspects:

- “This reduction in emissions will contribute to light duty vehicles meeting 26% of the target for NOx reduction contained in the draft European Commission Thematic Strategy for Air Pollution”.<sup>40</sup>
- “The NOx emission reduction from Euro 6 will increase the health benefits by approximately 60 – 90% relative to Euro 5”.<sup>41</sup>
- “There will be an additional 24% reduction in overall NOx emissions from light duty vehicles in 2020 compared to the introduction of Euro 5 only”.<sup>42</sup>
- “The forecast indicates that the introduction of Euro 6 will have no significant impact on CO2 emissions or sales of diesel vehicles”.<sup>43</sup>

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<sup>38</sup> Clean cars: Commission proposes to reduce emissions, Brussels, 21 December 2005, Reference # IP/05/1660, available at:

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/05/1660&format=HTML&aged=1&language=EN&guiLanguage=en> (accessed Oct. 25, 2010).

<sup>39</sup> Euro 5 and 6 will reduce emissions from cars, Reference # MEMO/06/409, Brussels, 7th November 2006, available at:

<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/06/409&format=HTML&aged=0&language=EN&guiLanguage=en> (accessed Oct. 25, 2010).

<sup>40</sup> Ibid.

<sup>41</sup> Ibid.

<sup>42</sup> Ibid.

<sup>43</sup> Ibid.

- “Reductions in emissions will continue to grow after 2020 as the older, more polluting vehicles retire from the vehicle fleet”.<sup>44</sup>

## **CHANGES IN HEALTH IMPACTS IN 2020**

In terms of health effects, the analysis of the impact on air quality of the combined contribution to emissions reduction of Euro 5 and Euro 6, are as below.

1. Acute Mortality (All ages) reduction in euro 5 was 72 in euro 5&6 is 112, with the increase benefit of 57% causing premature deaths and pollutant involved is O<sub>3</sub>.<sup>45</sup>
2. Chronic Mortality (30yr +) reduction in euro 5 was 2000 in euro 5&6 3800, with the increase benefit of 90% causing premature deaths and pollutant involved is PM.<sup>46</sup>
3. Chronic Mortality (All ages) reduction in euro 5 was 20,600, in euro 5&6 35,900, with the increase benefit of 74% causing life yrs lost and pollutant involved is PM.<sup>47</sup>
4. Restricted Activity Days (15-64yr) education in euro 5 was 1,850,000 in euro 5&6 is 3,180,000, with the increase benefit of 71% and pollutant involved is PM.<sup>48</sup>

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<sup>44</sup> Ibid.

<sup>45</sup> Ibid.

<sup>46</sup> Ibid.

<sup>47</sup> Ibid.

<sup>48</sup> Ibid.

The defects we can see here are very obvious, some are mentioned below;

- Firstly this is an ideal situation and difficult to achieve but seems possible when we think positive as nothing is impossible in this world.
- Secondly, shifting to euro 6 standards is bit expensive.
- It doesn't work on C2O emission, which is a major pollutant.

### 3.1.3.7 EUROPEAN UNION ENVIRONMENTAL LEGISLATION

According to European Union Environmental legislation, the noise emissions from motor vehicles are covered by two directives. These directives introduce different sound level limits. These limits range from 74dB (A) to 80dB (A) and similarly of motorcycles, it ranges from 75dB (A) to 80dB (A).<sup>49</sup>

## 3.2 CONCLUSION

If we see the overall jigsaw of the national laws relevant to the present issue then they can be divided into 3 main categories. First is the leasing sector. We have Companies' Ordinance 1984, Leasing Companies (establishment and regulations) rules 2000 and non banking financial companies' (establishment and regulations) rules, 2003 but all of these are only related to the procedure of leasing not a single of above deals with its after affects. The second category is the traffic or motor vehicle

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<sup>49</sup> 'Noise from Vehicles and Machinery', Overview of EU environmental legislation, Guide to the Approximation of European Union Environmental Legislation, part 2, available at: <http://ec.europa.eu/environment/archives/guide/part2h.htm> (accessed Nov. 28, 2010).

laws and the third are the environmental laws. Pakistan since 1975 made development in the environmental sector, which includes National Environmental Quality Standards for motor vehicle exhaust and noise [NEQS]. The standards fixed by this law are not according to International Standards but still if the Government agencies work properly and the law is implemented in its true sense then a large amount of pollution can be abated then later on we can work on increasing these standards. Close coordination of different Government Departments with the leasing sector is a need of time, as we have laws but their implementation is lacking.

## **CONCLUSION AND RECOMMENDATIONS**

Lease is a contract by which one transfers the possession of his property for a specified term and for a specified rent. The equivalent term in Shariah for leasing is the contract of Ijarah al ashya. One kind of leasing practiced in these days is car leasing. It is essentially a way of obtaining a vehicle for a set period of time. The car leasing is a rapidly growing trend these days leaving behind many bad and long lasting effects on the society. Some of these consequences of car leasing are; (i) heavy traffic blocks, (ii) accidents, (iii) parking crises, (iv) jeopardy for pedestrians, (v) fuel consumption, (vi) pollution, and (vii) smog.

These consequences should be tackled smartly so there could not be left any further effects of car leasing. We have different laws and rules but not a single law directly tackles this issue for example our government can make the restriction on the leasing companies for leasing of particular number of cars. Moreover the government should think about widening of roads. This is happening in Islamabad but during these road constructions the traffic condition turns worse. So there should be proper planning in constructing such roads. Moreover on the part of citizens, they should avoid taking more cars on roads, if one car can manage the pick and drop of three to four people then why to get three to four cars on road instead of one.

Conditions of roads in Pakistan are worsening day by day. There is a dire need to solve this problem because in the coming years this problem surely be worsened.

Pakistan is not an EU member state but in order to come out of this problem we can adopt certain positive areas from them. We should think over our mistakes and their prevailing impacts instead of waiting to see our future being screwed up. There is a dire need for a paradigm shift from *'why we should care if others don't'* or *'there is nothing we can do about it'*, to *'every individual is responsible for the destruction'* or *'everyone or anyone can make a change'*.

The need is to understand the bad aspect of car leasing, and this is only possible when it is handled keeping in view its primary reasons because focusing and eliminating or tackling with secondary aspects may reduce the impacts for a short time but this is not the proper solution and this can only be done through awareness programs and some struggle by the individuals, government and the banks/companies. The damage is once done is done, the need is to remove it from the roots.

#### **GENERAL RECOMMENDATIONS**

1. Identify legislative gaps and then fill them with proper and effective legislations.
2. Legislatures or draftsman should be well equipped with what they are dealing with. They must know the impacts of their work. We need practical work instead of book work.
3. Implementation of such laws to be strictly adhered with and without any discrimination.

4. The amendments in motor vehicle laws should be made by keeping in mind the environmental laws and emission standards.
5. The competent authorities should monitor the standards with the help of local authorities, who should scrutinize the performance of the vehicles within their jurisdiction and their role should include powers to ban the vehicles violating noise or smoke emission standards.
6. Cooperation between the government agencies and the auto industry should be such that to develop the system of giving incentives as a reward to those who help in reducing pollution. These may include manufacturers, importers or users/buyers.
7. The companies should be limited, by the government of Pakistan, in a sense to lease out particular number of cars in the coming year; the number which the government thinks can run through current road system easily without causing harm. For this reason a provision regarding this limitation on the leasing companies should be added in the companies' ordinance 1984 with the penalty for the defaulters.
8. A rule should be inserted in the Leasing Companies (establishment and regulation) rules, 2000 stating that no family should be given the cars on lease more than one or utmost two and to the families who already taken out the

cars on lease from other companies or banks. This rule will definitely lessen the number of leased out cars.

9. People should have some knowledge of such bad consequences of car leasing so they avoid leasing cars more. For that reason awareness programs should be run throughout the country.
10. There is no traffic plan in city where people can use only public transport instead of commuting on motorcycle rickshaws. The government should introduce good transport system in the city, and then people will prefer to commute on buses rather than travel on their conveyance that has shrunk the roads.
11. Vehicle industry should be provided with enough benefits and facilities in order to enhance their ability to introduce alternative solutions like zero pollution cars or cars run with water as fuel. Recently a French company named MDI developed an Air Car which received funding from Indian car maker Tata Motors to build the car for the Indian market<sup>1</sup>. A company named Zero Pollution Motors says it plans to bring 106 mpg car powered by air to the U.S. by 2010. When traveling at low speeds, the car has zero emissions, while in

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<sup>1</sup> For details See Wayne Cunningham, "Zero Pollution Car: 106 mpg air car to come to U.S. by 2010," February 21, 2008, [http://reviews.cnet.com/8301-13746\\_7-9876428-48.html](http://reviews.cnet.com/8301-13746_7-9876428-48.html) (accessed Feb. 20, 2010).



high speed mode it has some emissions because of its use of gasoline<sup>2</sup>.

12. As far as public is concerned, training programs should be introduced to aware them. Precautionary measures to be taken like wearing smoke masks. Signals for pedestrians to be introduced and public transport to made best in order to let people commute on it instead of taking out private cars. Moreover roads should be expanded with proper planning.

### **PROPOSED INSTALLATIONS**

#### **i) Catalytic Converters**

It seems that the installation of catalytic converters is a best solution to reduce the CO emission from cars. But this is not true because these converters still permit exhaust gases to contain lethal CO concentrations.

#### **ii) CO Alarms**

After taking above steps proper alarm system should be installed in the cars and made compulsory in order to detect the Carbon monoxide emission.

#### **iii) CO Detectors**

CO detection produce engine shut down system. This seems the best solution besides the catalytic converters installation.

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<sup>2</sup> Ibid.

**iv) Computerized System**

On board computers/Screens to be installed, so that the driver can repair his car which will be helpful in the CO reduced emission process.

**v) Odorants**

CO is an odorless gas, and thus can be called as a silent killer. In order to avoid it, effective odorants shall be attached with the combustion pipe, so others get aware of the fact of CO emission.

## **BIBLIOGRAPHY**

### **BOOKS/JOURNOULS**

1. Abbas, Shams-Uddin Muhammad Bin Abbi. *Nihayatyl-Muhtaj-Ila-Shar-Al-Minhaj*. Dar-Ul-Fikar, 1984.
2. al-Jaziri, Cf. Abd al-Rahman. *Kitab al-Fiqh 'ala al-Madhahib al-Arba'ah*. n.d. III. Cairo: Al-Maktabah al-Tawfiqiyah.
3. al-Wahhab, Abu Sulayman 'Abd. *'Aqd al-Ijarah Masdar min Masadir al-Tamwil al-Islamiyah*. Jeddah: Islamic Research and Training Institute, 1413/1992.
4. Bahuti, Mansur ibn Yunus. *Al Rawd al-Murbi*. Matbah Ansar al sunnah al Muhammadiyyah, 1366 H.
5. Brealey, Richard A. Stewart c. Myers. *Principles of corporate finance*. 7th Ed. New York: McGraw-Hill Irwin.
6. Bugge, H. C. 1996. *The principles of polluter pays in economics and law*. in E. Eide and R. van der Bergh (eds). *Law and Economics of the Environmnet*. Oslo: Juridisk Forlag, 1996.
7. Ibn Qudama, *Muwaffaq al Din al- Mughni Dar al- Fikr*. vol. 5. Beirut: 1404/1984.
8. Jr. Miller, G. Tyler. *Living in the Environment*. Belmont: Wadsworth Publishing Company, 1987.
9. Kamali, Mohammad Hashim. "A Shari'ah Analysis of Issues in Islamic Leasing". J.KAU: Islamic Economics. Vol. 20. No. 1. Kuala Lumpur: International Islamic university Malaysia.

10. Kasani. *bada'I al sanai, fi tarteeb al-sharai*. vol. 4. Cairo: sharikah al-matbuhaat al-islamiyyah.
11. Mansoori, Muhammad Tahir. *Islamic law of contracts and business transactions*. 3rd Ed. Islamabad: Shariah academy International Islamic University Islamabad, 2005.
12. Maxton, Graeme P.. Wormald John. *Time for a model change: re-engineering the global automobile industry*. USA: The press syndicate of the University of Cambridge, 2004.
13. Mohsin & Tahir V. Feroze Nana Ghulamaly and another, Writ Petition No. 1, P L D 1958 (W. P.) Karachi.
14. Mrs. Anjum Irfan v. Lahore Development Authority, P L D 2002 Lahore.
15. Munir, Muhammad. *The polluter Pays Principle in International Environmental Policy and Law: Economic and Legal analysis*. Islamabad Institute of legal studies, 2004.
16. Nagle, Garrett. "Air quality". Focus on Geography: Hazards. Nelson Thornes, 1998.
17. Oxford dictionary.
18. Qadar, Shoaib and Athar Rafique Dogar. *Pakistan environmental laws and their compliance: a guide to Industrial Establishments*.Lahore: Lahore Law Times Publications, 2002.
19. Shariah Standards, Accounting and Auditing Organization for Islamic Financial Institutions. AAOIFI. Bahrain:Manama.

20. Shirbini. *Mughni al- Muhtaj. Sharikah wa-Matba'h Mustafa al Babi al- Halabi*. vol. 2. Cairo, 1933.
21. Usmani. Muhammad Zubair. Sharia Advisor Muslim Commercial Bank Ltd. Karachi: Jamia Darul Uloom.
22. Zuhayli, Wahbah. *Al\_Fiqh al islami Wa adillahtohu*. Damascus, Dar ul Fikr, 1984.

### **NEWS PAPER ARTICLES**

1. 'ADB organizes contest to encourage solutions'. The News: Business. November 05, 2009.
2. 'Correlates of climate change'. The News: political economy. November 01, 2009.
3. 'Rural poor more vulnerable to climate change'. The news: city news. 22 Nov, 2009.
4. 'The right choice on climate'. The News: Opinion. September 25, 2009.
5. 'Traffic, dust linked to asthma in kids'. The News: City news. December 06, 2009.
6. 'Traffic noise raises the risk of high BP: Study'. The News. Sunday. December 20, 2009.

### **ARTICLES ON WEBSITES**

1. Ahmad, Zaheer. "fast track". December 30, 2007. Sunday. <http://www.jang.com.pk/thenews/dec2007-weekly/nos-30-12-2007/she.htm> (accessed December 30, 2007).

2. Bashir, Basharat Hasan. "traffic pollution in Pakistan". March 10, 2008.

[http://groups.google.com.pk/group/soc.culture.pakistan/browse\\_thread/thread/7da64d2a19b0398/efa90a98a212024d?hl=en&lnk=st&q=traffic+pollution+in+pakistan#efa90a98a212024d](http://groups.google.com.pk/group/soc.culture.pakistan/browse_thread/thread/7da64d2a19b0398/efa90a98a212024d?hl=en&lnk=st&q=traffic+pollution+in+pakistan#efa90a98a212024d) (accessed July 23, 2008).

3. Cunningham, Wayne. "Zero Pollution Car: 106 mpg air car to come to U.S. by 2010". February 21, 2008.

[http://reviews.cnet.com/8301-13746\\_7-9876428-48.html](http://reviews.cnet.com/8301-13746_7-9876428-48.html)  
(accessed Feb. 20, 2010).

4. Freund, Peter and George Martin. *Driving south: the globalization of auto consumption And its social organization of space*. (New Jersey, US: Montclair State University Department of Sociology, 1999).

<http://www.chss.montclair.edu/~hadisb/drivsout.pdf>, (accessed Dec 01, 2009), also available at:

<http://books.google.com.pk/books?id=UhV7wmnXROAC&dq=%E2%80%A2%09Environmental+sociology:+from+analysis+to+action++By+Leslie+King,+Deborah+McCarthy&printsec=frontcover&source=bl&sots=xfRE5VPJQ1&sig=->

[LtMDe50VMETLKa3Jajab9F8sWU&hl=en&ei=GOs8S8\\_uOc2HkQWv6JS-](http://books.google.com.pk/books?id=LtMDe50VMETLKa3Jajab9F8sWU&hl=en&ei=GOs8S8_uOc2HkQWv6JS-)

[Dg&sa=X&oi=book\\_result&ct=result&resnum=1&ved=0CAgQ6AEwAA#v=onepage&q=&f=false](http://books.google.com.pk/books?id=Dg&sa=X&oi=book_result&ct=result&resnum=1&ved=0CAgQ6AEwAA#v=onepage&q=&f=false) (accessed Dec 02, 2009).

5. Ghauri, Irfan. "City administration fails to solve traffic problems". Wednesday, April 26, 2006. daily times.

[http://www.dailytimes.com.pk/default.asp?page=2006\04\26\story\\_26-4-2006\\_pg11\\_12](http://www.dailytimes.com.pk/default.asp?page=2006\04\26\story_26-4-2006_pg11_12) (accessed November 29, 2009).

6. Hameed, Shahid. "special report: the future of leasing sector in pakistan". *et cetra*. Nov 06, 2000. <http://www.pakistaneconomist.com/issue2000/issue45/etc4.htm>, (accessed Oct 08, 2009).
7. Jeffrey Taylor, "The History of Leasing". [http://fbibusiness.com/history\\_of\\_leasing.htm/](http://fbibusiness.com/history_of_leasing.htm/) (accessed July 05, 2009).
8. Lahori, Balvinder Singh. "A brief summary of Pakistan's auto industry since 1947". December 27, 2008. <http://www.pro-pakistan.com/2008/12/27/a-brief-summary-of-pakistans-auto-industry-since-1947/> (accessed Nov 18, 2009).
9. Lucia, Vito De (Lead Author). Richard Reibstein (Topic Editor). "Polluter pays principle". In: Encyclopedia of Earth. Eds. Cutler J. Cleveland (Washington, D.C.: Environmental Information Coalition, National Council for Science and the Environment). [First published in the Encyclopedia of Earth August 22, 2008; Last revised Date October 17, 2010. [http://www.eoearth.org/article/Polluter\\_pays\\_principle](http://www.eoearth.org/article/Polluter_pays_principle) (accessed November 07, 2010).
10. Naqvi, Lubna Jerar. "Parking crises" (November 19, 2006). <http://www.jang.com.pk/the-news/nov2006-weekly/nos-19-11-2006/kol.htm> (accessed August 05, 2008).

11. Pannni, M. Javeed. "Leasing in Pakistan; past, present and future". (Economic Review, FindArticles.com). [http://www.findarticles.com/p/articles/mi\\_hb092/is\\_n3\\_v24/ai\\_n28625041/](http://www.findarticles.com/p/articles/mi_hb092/is_n3_v24/ai_n28625041/) (accessed July 05, 2009).
12. Shirazi, S.A.J. "Health, Science & Technology" (January 28, 2007) <http://pakistaniat.com/2007/01/28/pakistan-lahore-haze-fog-smog-pollution/> (accessed July 17, 2008).
13. Usmani. Muhammad Zubair. Sharia Advisor Muslim Commercial Bank Ltd. (Karachi: Jamia Darul Uloom). <http://www.alhudacibe.com/images/Presentations%20on%20Islamic%20Banking%20and%20Finance/Ijarah/Ijara%20%20by%20Zubair%20Usmani.ppt>. Last visited:25-12-09.
14. Usmani, Taqi. "Ijarah". *An online publication by accountancy.com.pk* 02. [http://www.accountancy.com.pk/docs/islam\\_Ijarah.pdf](http://www.accountancy.com.pk/docs/islam_Ijarah.pdf) (accessed Dec 20, 2009).
15. Watson, John. "Acid Rain". <http://pubs.usgs.gov/gip/acidrain/2.html> (accessed August 12, 2008).
16. Williams, Carol J. "Environment" (March 27, 1999). [http://groups.google.com.pk/group/talk.environment/browse\\_thread/thread/dece5be921994ca5/dd57c082f5100fcf?hl=en&lnk=st&q=effects+of+heavy+traffic+on+pollution#dd57c082f5100fcf](http://groups.google.com.pk/group/talk.environment/browse_thread/thread/dece5be921994ca5/dd57c082f5100fcf?hl=en&lnk=st&q=effects+of+heavy+traffic+on+pollution#dd57c082f5100fcf) (accessed July 20, 2008).



17. <http://www.scribd.com/doc/16255181/Final-Report-Pak-Auto-ind-09> (accessed December 08, 2009).
18. "History of leasing". Progress-Neva Leasing LLC.  
<http://www.pn-leasing.ru/en/205/> .
19. "Types of Lease". (GMV leasing, 2003),  
[http://www.gmvleasing.co.uk/lease\\_types/types\\_of\\_lease.asp/](http://www.gmvleasing.co.uk/lease_types/types_of_lease.asp/)  
(accessed July 05, 2009).
20. <http://www.britannica.com/>
21. "History of leasing in Pakistan". Available at: <http://www.sigma-leasing.com/leasing.htm> (accessed July 14, 2009).
22. "Merchandise trade by product". *International trade Statistics*.  
(world trade organization, 2009).  
[http://www.wto.org/english/res\\_e/statis\\_e/its2009\\_e/section2\\_e/ii01.xls](http://www.wto.org/english/res_e/statis_e/its2009_e/section2_e/ii01.xls) (accessed February 05, 2010).
23. <http://www.pama.org.pk/>
24. "Effects of the automobile on societies".  
[http://www.newcartradeshows.com/Effects\\_of\\_the\\_automobile\\_on\\_societies.html](http://www.newcartradeshows.com/Effects_of_the_automobile_on_societies.html). (accessed December 20, 2009).
25. "Population, Labour Force and Employment". Government of  
Pakistan. Ministry of Finance.  
<http://www.finance.gov.pk/admin/images/survey/chapters/12-Population08.pdf> (accessed December 20, 2009).
26. "Pakistan clean Air Programme". Government of Pakistan.  
Ministry of Environment local government and rural development.  
[http://www.environment.gov.pk/PRO\\_PDF/PositionPaper/PAKIST](http://www.environment.gov.pk/PRO_PDF/PositionPaper/PAKIST)

AN%20CLEAN%20AIR%20PROGRAMME.pdf (accessed July 21, 2008).

27. "Carbon Monoxide: Carbon Monoxide Emissions". Global Edition. [http://www.carbonmonoxidekills.com/26/carbon\\_monoxide\\_emissions/](http://www.carbonmonoxidekills.com/26/carbon_monoxide_emissions/) [accessed 23rd October 2010].
28. "The Environment: Green House Gases". Environmed Research Inc. British Columbia Canada. <http://www.nutramed.com/environment/greenhouse.htm> [accessed 23rd October 2010].
29. "About smog". [http://www.ns.ec.gc.ca/weather/smog\\_faq.html](http://www.ns.ec.gc.ca/weather/smog_faq.html) (accessed July 19, 2008).
30. "Organic gases". (U.S. environmental protection agency, November 14th, 2007). <http://www.epa.gov/iaq/voc.html> (accessed August 08, 2008).
31. "Effects of smog". [http://library.thinkquest.org/26026/Environmental\\_Problems/smog\\_-\\_effects.html](http://library.thinkquest.org/26026/Environmental_Problems/smog_-_effects.html) (accessed July 19, 2008).
32. "Ringelmann Smoke Chart" (Revision of IC 7718) By Staff US Department of Interior Bureau of Mines. May 1967. available at: <http://fusiforme.home.mindspring.com/dwnlds/Ringelmann%20Chart.pdf> IC bureau of mines information circular 8333 (accessed Dec 05, 2010).
33. "Clean cars: Commission proposes to reduce emissions". Brussels, 21 December 2005. Reference # IP/05/1660, available at:

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/05/1660&format=HTML&aged=1&language=EN&guiLanguage=en>

(accessed Oct. 25, 2010).

34. “Euro 5 and 6 will reduce emissions from cars” Reference # MEMO/06/409. Brussels: 7th November 2006. available at: <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/06/409&format=HTML&aged=0&language=EN&guiLanguage=en> (accessed Oct. 25, 2010).

35. “Noise from Vehicles and Machinery”. Overview of EU environmental legislation. Guide to the Approximation of European Union Environmental Legislation. part 2. available at: <http://ec.europa.eu/environment/archives/guide/part2h.htm> (accessed Nov. 28, 2010).

## **LAWS**

- XLVII the Companies Ordinance. 1984.
- XIX the motor vehicles ordinance. 1965.
- The motor vehicle rules. 1969.
- National environmental quality standards for motor vehicle exhaust and noise.
- NBFC’s (establishment and regulation) rules. 2003.
- XLII The Security & Exchange Commission of Pakistan Act. 1997.

## **DEPARTMENTS**

- Islamabad Traffic Police Computer Branch.
- The Excise and Taxation office Islamabad

