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## **The Effect of Tobacco Industries on the Environment**

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### **ABSTRACT**

Myingyan Township, Mandalay Region has many tobacco industries worked long long ago. In these industries production of tobacco include tobacco pulverization, tobacco broil, tobacco roasting etc and these cause environmental air pollution. The smell out of tobacco industries is very affected by the peoples. Workers have to breathe this smell every day. So, the effect of health workers can be harmed, leading events carcinoma, commonly known as cancer. On the other hand, some industry used fire wood in roasting process. So deforestation in enhanced to an extent endangering our environmental preservation.

**Keywords :** Air pollution, effect of health, preservation

### **INTRODUCTION**

The use of charcoal fuels for industries, cooking and heating is likely to be the largest source of industries air pollution on a global scale. Nearly half the world continues to cook with solid fuels such as dung, wood, agricultural residues and charcoal. When used in simple tobacco industries, these fuels substantial amounts of toxic pollutants. These pollutants are called solid-fuel "smoke" in this paper. Industries with limited ventilation has (as is common in many developing countries), particularly tobacco industries which spend a large proportion of their economy.

According to World Resources Institute 2003, many countries produce national estimates of solid-fuel use, but only a minority collect specific information on fuel use at the household level. Evidence from 10 countries (Bangladesh, Ecuador, Indonesia, Mexico, Myanmar, Nepal, Pakistan, the Philippines, Thailand and Viet Nam) indicates that national and household levels of solid-fuel use are highly correlated. However, that this relationship holds true when solid fuels are not heavily used in industry.

This correlation was used to estimate use of solid fuel by households in nine countries (Afghanistan, Algeria, Egypt, the Islamic Republic of Iran, Lebanon, the Libyan Arab Jamahiriya, Morocco, Tunisia and Turkey) where only information on national use of solid fuel was available. For three countries (Angola, the Democratic Republic of the Congo and the Sudan), in which a large fraction of the total national energy consumed comprised biomass fuels (World Resources Institute 2003). In other countries, including Bangladesh, Indonesia, Myanmar, Nepal, the Philippines, Thailand, Viet Nam and Pakistan (Government of Indonesia 1997) aggregate data on annual residential fuel consumption are available. In these cases, the percentage of industries using solid fuels was estimated according to the quantity of fuel consumed.

Although the level of economic growth has been achieved, it is assumed that countries will shift away from tobacco industries entirely with solid fuels. The use of solid fuel for heating may continue, however, especially in areas that are rich in charcoal and wood.

However, this effect is likely Health outcomes: evidence for tobacco industries. Health outcomes caused by tobacco industries smoke from use of solid fuel were chosen after a review of the epidemiological evidence available for field research. As specificity, dose-response relationships, and experimental evidence are often difficult to assess for environmental exposures and health outcomes with multiple causes or long latency periods, we used the epidemiological evidence in conjunction with available information on

emissions, exposures and health outcomes in the tobacco industry (Smith & Smith 2000), Zetlik (2003), S2008) is supported by the effect of tobacco industries on the environment in Myingyan Township, Mandalay Region.

### Aim and Objectives

The aim of this research is to reveal the effect of tobacco industries for workers and local people.

Objectives are;

- (a) Health effect of local peoples and workers
- (b) Causes of air pollution on environment

### MATERIALS AND METHODS

#### Study area

Myingyan Township is situated in Mandalay Region, Myanmar. Myingyan is 4th biggest city in Mandalay. It is located 21.46 latitude and 95.39 longitudes, and it is situated at elevation 76 meters above sea level. According to 2014 census data, it has population of 276,096.

#### Study Period

This study will be conducted from October to November, 2015-2016.

Literature Review	20 days
Field	7 days
Data Analysed	15 days
Writing paper	15 days
Power point	3 days

#### Data collection Methods

The study is based on the review of existing literature, observations and interviews with various people (doctors, managers, workers) with 20 people; 8 female workers, 9 male workers, 2 doctors and 1 manager. To solve my research problems, first the research methods and design are necessary to formulate the research interviews which are concentrated on the research subject and research problems. When we conduct the interview, these research questions are not enough to cover to illustrate the people's attitude. At that time, the scholar's skill is essential to handle the research questions. For this, to collect the data, Key-Informant-Interviews (KII), and Direct observation will be used. During interviews and discussions, permission to record them the entire interview and in all cases respondents were comfortable. Sometimes it had pen and paper, usually wrote down field notes after each conversation. All interviews were administered by the researcher; it noticed that the workers were much comfortable with interviewer. The detail interviews with workers in tobacco industry Myingyan Township. The research carried out 20-in-depth-interviews with key informant. The selection of key informants depended mainly on my experience in the data collection. These interviews last more than duration was 20-30 minutes. Other necessary data collecting tools will be applied to be a specific research outcome. On the other hand, note taking, recording and other necessary data collecting tools will be used.

### RESULTS AND DISCUSSION

In tobacco industries, the number of male is more than female. The males can see in tobacco roasting, tobacco pulverization, tobacco broil. The females can see in tobacco curl.

#### 1. Why do the workers work in tobacco industries?

Their houses are locating in near the tobacco industries, familiarity the owner, working their family. For these reasons, the workers work the tobacco industries.

### Background of tobacco industries

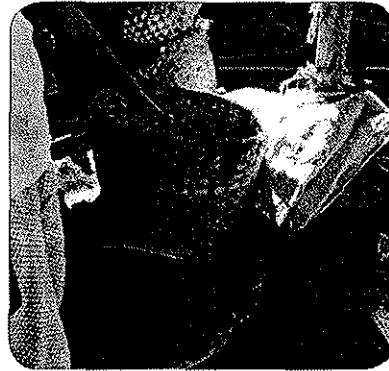
Tobacco industrial has broils and tobacco roasting, some industry use fire wood. But small industry use fire wood. Other industries use fuel. Figure (1) shows that tobacco roasting. The picture of fuel show figure (2). When tobacco broils, roasting tobacco, fuel use two basket. The basket shows the figure (3). The tobacco pulverization machines show figure (4)



Fig (1) Workers are working in tobacco roasting.



Fig (2) the fuel



Fig(3)The basket that weight the fuel when tobacco broil, roasting tobacco.



Fig (4)The tobacco pulverization machine

### Relevance of health outcomes

The odor of tobacco pulverization and tobacco roasting is smelled at 160 feet before tobacco industries. This smell is very hard for children, the oldersters and the pregnant women. The workers have to breathe this smell every day. So, the workers sometimes absorb headaches, dizzy and vomit. Mg Wai Gyi works the tobacco industry. He was working meanwhile, he caused nosebleed almost every day.

Most studies of air pollution have attempted to associate short-term changes in exposure with acute health outcomes. This does not address the long-term impact on chronic health outcomes, nor does it necessarily focus on the health outcomes that are responsible for the bulk of the burden of disease. In particular, mostly in the form of pneumonia, are likely to be responsible for the largest burden of disease caused by exposure to air pollution.

An alternative approach, consistent with that used in most epidemiological studies in developing countries, is to divide the population into categories of people that are exposed or not exposed to smoke from solid fuel, on the basis of fuel use and ventilation.

Although necessary here, owing to the current lack of exposure data, this method overlooks the large variability of exposure within each of these groups (Naeher et al. 2000a). Furthermore, this is affected by the fuels may produce different mixtures of pollutants in different settings. We also recognize that exposures from tobacco industries smoke and heating.

### Health outcomes

A number of important diseases that are potentially associated with use of solid fuels have not been included in this analysis owing to insufficient or lack of direct evidence on causality. Lack of inclusion does not necessarily imply inconclusive findings. Rather, it refers to a relatively small set of findings, suggesting that additional, carefully conducted studies are needed to strengthen the evidence base.

### Asthma

Typical exposures to tobacco industries workers has effect of tobacco smell from use of solid fuels are much higher than those for air pollution with asthma has been frequently associated. In addition, a study of workers, and effected of other people in Myingyan found increased risk associated with the tobacco pulverization, tobacco broil, and roasting tobacco have associated asthma in children of school age and in adults with various measures of tobacco industries smoke pollution from solid-fuel use. As the reported background rate is low in most developing countries, however, asthma contributes relatively little to the total burden of deaths from tobacco industries smoke effect of air pollution.

### Visual impairments

Two case-control studies in Myingyan have found an increased risk of cataracts among people affected by tobacco industries smoke pollution. Myingyan have found a somewhat lower rate for partial blindness but no significant difference for total blindness. Tobacco industries air pollution may also be linked to blindness through trachoma. Although Myingyan have found industries in out of the town but this effected are also workers in tobacco industries. So, we are reminding of how to be protective and awareness of their health.

### Local people prove problems

The tobacco pulverization machines make noise and health disease. Local people feel this noise. And local people feel odor out of tobacco industries, and health outcome. The local people prove the above problems.

### Tobacco Industries benefit

To economical, the tobacco pulverization machine drives the chaff. The chaff gives the light. The ash



that deep using the chaff use growing the plants. The bud have persistence the pulverization use the growing the onion. The machine that the chaff gives the light show figure (5).The chaff ash and the bud show figure (6).

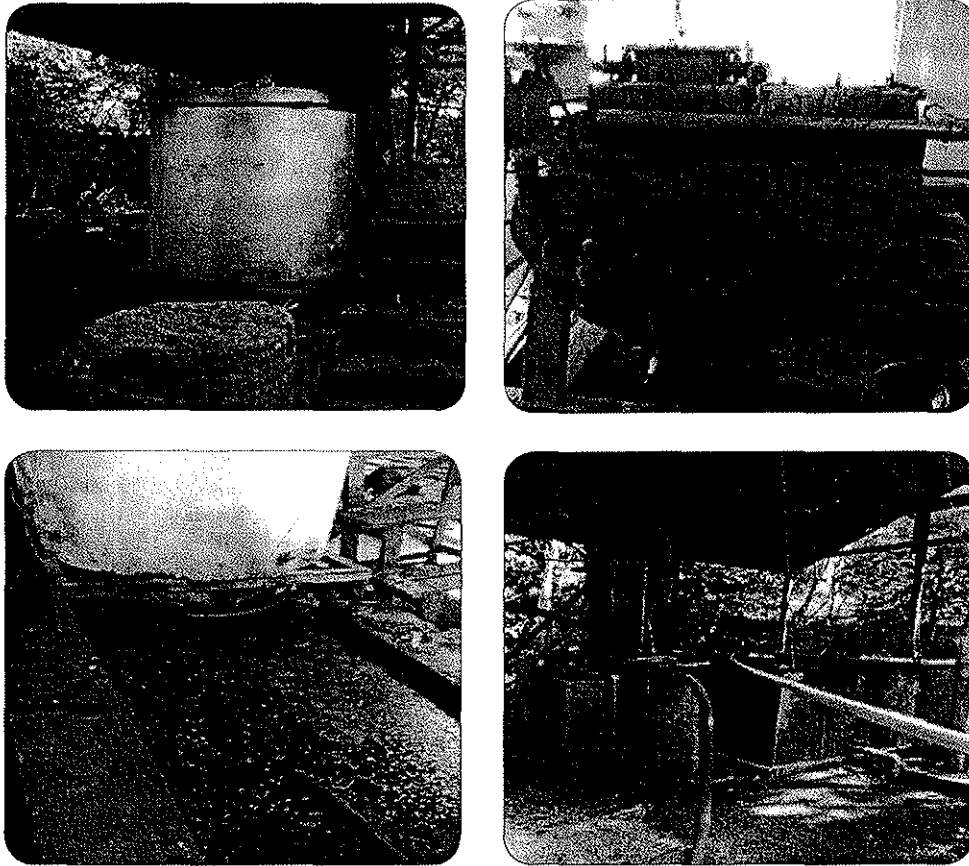


Fig (5)The machine that give the light.



Fig(6) the chaff ash and the bud.

## Conclusion

There are several related sources of air pollution not covered by this analysis that may be locally important in some countries. However, too few data are available regarding exposures to extrapolate these risks to global burdens, although we suggest that these sources represent potential research topics, as well as priorities for determining exposure distributions, in order to improve the estimated burden of air pollution.

Myanmar is grade (17) in the list of World Atmosphere Pollution Countries because Myanmar has many industries that cause air pollution. This summarizes the methodology used to assess the burden of disease caused by air pollution from tobacco industries use of solid fuels. Most research into and control of air pollution worldwide has focused on sources of particular concern in developed countries, such as environmental tobacco industries smoke, and radon from soil. Although these pollutants have impacts on health, little is known about their global distribution. Thus, we focus solely on tobacco industries smoke from household use of solid fuels, the most widespread traditional source of tobacco air pollution.

Moreover, consistent with the epidemiological literature, tobacco industries use of solid fuels (charcoal) for actual exposure to tobacco industrial air pollution. On the other hand, The relation of risk obtained from epidemiological studies were combined of two disease end-points for which there is strong evidence of an association with use of charcoal and wood fuels. Besides deforestation occur when workers use wood as fuel for fires to dry and broil the green leaf tobacco. We hope that these results will help to generate recognition of the potential magnitude of this health problem and concerned with tobacco industries.

## ACKNOWLEDGEMENTS

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- [www.worldatlas.com>where-is-myanmar](http://www.worldatlas.com/where-is-myanmar)
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## **The Effects of Urbanization and Air Pollution in Yangon**

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### ABSTRACT

Air pollution is becoming more noticeable in Yangon and its effects can be seen throughout the former capital. Urbanization means increase of population in an area. Among them, their needs industries are growing up by which air is polluted. More people turn more facts which creates cars and other gases. And, they need more vehicles for transportation in Yangon. Vehicles pollute air are rapidly for urbanization in Yangon. Thus, a lot of carbon dioxide gases are came out. The most air pollution in Yangon is because of the usage of cars. A lot of carbon dioxide gases reach into the air and then we can see the length of people is harm slowly. At the beginning of 2000-2001, Yangon has suffered serious air pollution. During 2014-2016, the worst air pollution, many people have felt physical discomfort; cough hard breathing etc which are the health problems of air pollution.

**Keywords:** Air pollution, Effects of air pollution, Health problems, Urbanization, Usages of cars

### INTRODUCTION

The urbanization are more happening today and causes different problems. Major issues of urbanization are air and water pollution. Among them, the causes of air pollution are important cause of urbanization. Cars, factories, and burning waste of dangerous that can change the air quality in our city, that affect of our health such as respiratory diseases.

Yangon, capital city of Myanmar has main commercial, manufacturing and transportation center. So, much carbon dioxide gases are come out by factories and transportations in Yangon. As the result, Myanmar's air is not only harmful to breathe, it's also among the worst in the world according to the new information from the World Health Organization. Upwards of 22,000 deaths per year in Myanmar can be attributed to ambient air pollution according to WHO (Myanmar Time, Sep 30, 2016) data. But people do not know these situations and they cannot take care of their health awareness. This is affect to risk how does struggling for survival in their lives?

So, this paper describes the health problems of urbanization connected with air pollution which has been caused in human society. From this paper, people get many knowledge about health problems and the causes of air pollution and they can take care of their health awareness as much as they do.

### Aims and Objectives

This research aim is how to affect urbanization on air pollution. To explain the urbanization and air pollution to reveal causes of air pollution and health problems of air pollution are the objectives of the research paper.

### METHODOLOGY

#### Study area

Yangon is a city found in Myanmar. It is located 16.81 latitude and 96.16 longitude. It is situated at elevation 30 meters above sea level. Yangon has a population of 4,477,638 making it the biggest city in Myanmar. The breadth is 231.18 square miles [598.75 kilo meter square]

#### Study pollution

The studies eventually conform to the basic model agreed with the people at the commencement of the research. This study will be conducted in the study of 30 people and real answers are 20 peoples

how to protect their health and to improve their environment. The purpose of this study is to explore the effect of air pollution on people who living in urbanization. The research methods are observation and Key-Informant-Interview. Will be used. Both secondary and primary data were used for the final outcome. Secondary data was downloaded from the relevant website and was also obtained from relevant international. The primary data used in this research was collected from a field survey conducted by the researcher primary data also known as the first hand data was obtained through face-to-face interviews with local people 30. They are taxi drivers, bus drivers, public, doctors. Local people are 15 peoples, taxi drivers, bus drivers are 10 peoples and doctors are 5 peoples. In the following paragraphs, it will describe in detail the various instruments used to collect the data from this study and the procedure used to select respondents. On the other hand, note taking, recording and other necessary data collecting tools will be used.

### Study period

This study will be conducted from October to November of 2015-2016 academic years.

1.	Literature	12 days
2.	Field visit	7 days
3.	Data analyse	15 days
4.	Writing paper	25 days
5.	Power point	2 days

### Methods

The identification of required data that would help in answering questions and its applicable methods are provided with respective objectives. The main aim of the study is to explore the effect of air pollution on people who living in urbanization. The research methods are observation and Key-Informant-Interview. Will be used. Both secondary and primary data were used for the final outcome. Secondary data was downloaded from the relevant website and was also obtained from relevant international. The primary data used in this research was collected from a field survey conducted by the researcher primary data also known as the first hand data was obtained through face-to-face interviews with local people 30. They are taxi drivers, bus drivers, public, doctors. Local people are 15 peoples, taxi drivers, bus drivers are 10 peoples and doctors are 5 peoples. In the following paragraphs, it will describe in detail the various instruments used to collect the data from this study and the procedure used to select respondents. On the other hand, note taking, recording and other necessary data collecting tools will be used.

### RESULTS AND DISCUSSION

#### (1) Urbanization and air pollution

Air pollution is the introduction of biological molecules and other harmful substances into Earth's atmosphere. Air pollution depends on a country's technology and pollution control, particularly in energy production. Without effective policies to curb motor vehicles emission such as dynamics can lead to grave health consequences for urban populations.

In urban areas, affordable and socially acceptable transport infrastructure and facilities are needed to provide to become environment and people friendly urban transportation. In Yangon, public transport bus lines operate to carry 4.4 million passengers daily. The highest urban population (70.1%) people throughout in Yangon, Myanmar. The increasing of population nearly 14 percentages of Myanmar in Yangon. (2014 and census data) and most of people used of facilities (e.g. cars) it appears causes of air pollution in Yangon.

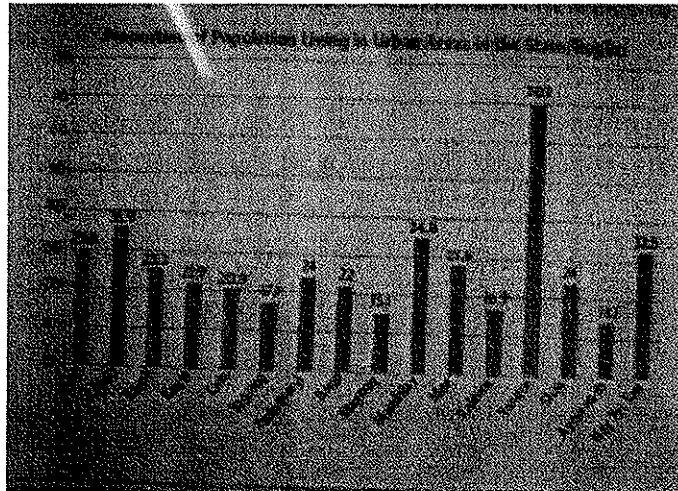


Figure No.[1] Proportional Population living in Urban Areas in the State/Region

Number of Registered Vehicles in Myanmar, 2008-14

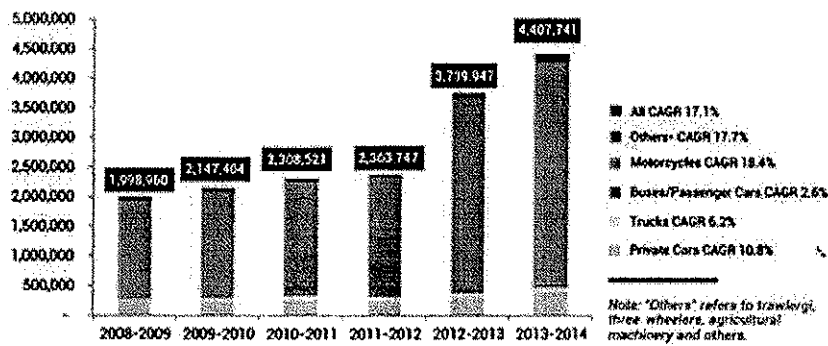


Figure No.[2] Number of Registered Vehicles in Myanmar, 2008-14

According to Figure No.1 and No.2 Myanmar's car imports higher than East Asia in these years. This shows that Myanmar's air especially Yangon become the worst to breathe for people and it affects to plants and animals among Asia.

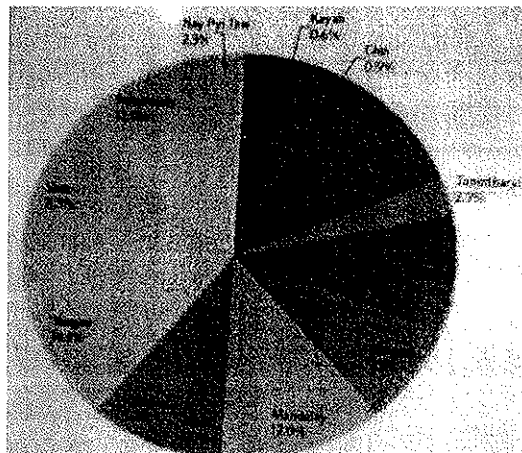


Figure No.[3] 2014 Census Data of Myanmar



Figure No.[4] The crowd cars sense in Yangon

According to Figure No.3 and No.4, people who live in Yangon more crowd than other regions in Myanmar. This is one of the causes of air pollution in Yangon. As people crowded in Yangon, their usages of cars, facilities and their waste which produce carbon dioxide gases reached into the air daily. And thus, Yangon's air pollution is the worst to breathe people who live in Yangon.

#### Causes of air pollution

Air pollution caused diseases, allergies, death to humans, damage to other living organisms such as animals and food crop or the natural or built environment. Air pollution may come from anthropogenic or natural sources. There are various factors which are responsible for releasing pollutants into the atmosphere. These sources can be classified into two major categories – anthropogenic (man-made resources) and natural resources.

In anthropogenic (man-made resources), smoke stacks of power plants, factories, waste incinerators and other types of fuel-burning heating devices. In developing and poor countries, traditional biomass burning is the major source of air pollutants. Traditional biomass includes wood, crop waste and dung. Fumes from paint, hair spray, varnish, aerosol sprays, waste deposition, military resources such as nuclear weapons and toxic gases made air pollution in human society. In natural sources, dusts from natural sources, cigarette smoking and volcanic activity. Most of them, carbon dioxide which is come out from motor vehicles make harmful to health. It also leded the high amount of air pollution.

During urbanization and industrialization, human used discharge has various pollutants into the atmosphere until the air pollution is so serious that has threatened to the survival of mankind. As the great amounts of car imports, the discharges of carbon dioxide gases is over three million per year in Yangon. Yangon is abundant and safe, clean air to breathe is only 14% from WHO data. In this situation, it is very dangerous to breathe air. And then, Myanmar stands level 17 at the most air pollution countries all over the world (data from global air pollution and disease appraisal report on September (WHO)).

According to WHO (Myanmar time, Sept 30, 2016), upwards of 22,000 deaths per year in Myanmar can be attributed to ambient air pollution. The respiratory health problems caused by air pollution are rooted for many years in human body. In Myanmar, 644 people are died by respiratory blockage, 1208 people are died by lung cancer, 3,257 people are died by cardiovascular disease and 5,491 people are died by palsy disease every years.

#### Health problems of air pollution

In Yangon, most of people must susceptible to serve health problems from air pollution are:

- individuals with heart disease such as coronary artery disease or congestive heart failure.
- individuals with lung disease such as asthma, emphysema or chronic obstructive pulmonary disease.
- pregnant women, children under age 14 whose lungs are affected by air pollution.
- Athletes who exercise vigorously outdoors
- Taxi drivers, bus driver.
- Outdoor workers like site workers who breathe smells of cement.

Another set of pollution problems are:

- Aggravated cardiovascular and respiratory illness.
- Added stress to heart and lungs, which must work to supply the body with oxygen.
- Damaged cells in the respiratory system.

Among them, there are two types of diseases caused by air pollution. They are long-term and short-term diseases. We must be known long term symptoms such as:

- Accelerated aging of the lungs.
- Loss of lung capacity
- Decreased of diseases such as asthma, bronchitis, emphysema and possibly cancer.
- Shortened life span.

We must be experienced temporary symptoms (short-term) such as:

- Irritation of the eye, nose and throat
- Coughing, Chest tightness
- Shortness of breath
- Wheezing
- Headaches
- Nausea
- Pneumonia

#### Cardiovascular disease

Cardiovascular disease is a class of disease that involve the heart or blood vessels. It is the leading cause of death globally. Air pollution is also emerging as a risk factor for stroke, particularly in developing countries where pollutants levels are highest. Air pollution was also found to be associated with increased incidence and mortality from coronary stroke in a cohort study in 2011.

#### Lung disease

Chronic obstructive pulmonary disease includes diseases such as chronic bronchitis and emphysema. People with bronchitis have a reduced ability to breathe in air and oxygen into their lungs. This is the effect of air pollution and it attacked human health.

#### Cancer

One investigation showed that higher activity level increases deposition fraction of aerosol particles in human lung and recommended avoiding heavy activities like running in outdoor space at polluted areas.

An additional Danish study, also in 2011, likewise noted evidence of possible associations between air pollution and other forms of cancer, including cervical cancer and brain cancer. This is another result of air pollution.

#### Asthma

Asthma is a common long term inflammatory disease of the airways of the lungs. It is characterized

by variable and recurring symptoms, reversible airflow obstruction, and bronchospasm. Symptoms include episodes of wheezing, coughing, chest tightness and shortness of breath. Asthma of environmental factors. Environmental factors include exposure to air pollution and allergens. Most of asthma take place in developing countries because of air pollution.

Air pollution is also associated with heart attacks and smokes. Young children are especially vulnerable lead poisoning of children leads to hearing loss. In adults, lead absorption causes hypertension, blood pressure problems and heart disease.

Yangon's air pollution became negative effects for people associated with health. This is one reason of less knowledge of people how to reduce air pollution in their environment.

#### Conclusion

In Yangon, most of people who are still using cars which are old cars in engines. They don't know these effects how produce many carbon dioxide gases to affect the air? In Yangon, must have tight rules to maintain old cars law or how to make these old cars and the awareness of old cars for public. And how to protect of air pollution and these effects of health for information? So, people must plant trees which absorbed carbon dioxide gases in the air and they reduce chopping of trees. Finally, people knew about the diseases associated with air pollution and causes of air pollution concerned with information.

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