A SOCIOLOGICAL STUDY OF ENVIRONMENTAL POLLUTION AND ITS EFFECTS ON THE PUBLIC HEALTH FAISALABAD CITY

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ABSTRACT

The present study was designed, to find out the sources, and, to analyze the harmful effects, of environmental pollution on the human health. Polluted air adversely introduces the harmful effects on the health of human beings. Nitrogen oxides, Sulpher dioxide, Carbon Monoxide, Ammonia and Ozone are the major air pollutants. When the concentration of the pollutants in the air becomes high from a certain level, the resultant effects may cause a degree of difficulties regarding human health specially the severe breathing problems leading to maximum as even the deaths may occur. Water pollution occurs when a body of water is adversely affected due to the addition of large amounts of materials to the water. Sewerage water, industrial wastes and disposals are the sources of water pollution. Waterborne diseases caused by polluted drinking water are Typhoid, Amoebiasis, Giardiasis, Ascariasis, and Hookworm. Land pollution is the degradation of the Earth's land surface through misuse of the soil by poor agricultural practices, mineral exploitation, industrial waste dumping, and indiscriminate disposal of urban wastes. Lead in soil is especially hazardous for young children causing developmental damage to the brain. Mercury can increase the risk of kidney damage; cyclodienes can lead to liver toxicity. The term noise is commonly used to describe sounds that are disagreeable or unpleasant produced by acoustic waves of random intensities and frequencies. Noise from industry, traffic, homes and recreation can cause annoyance, disturb sleep and effects health. Thus, sound is a potential serious pollutant and threat to the environmental health.

The present study was conducted in the Faisalabad city i.e. an industrial hub of Pakistan. There are many Textile and leather industries in the surrounding of city that continuously adding smoke and harmful gases in the air that create

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problems for the human health and damage the natural environment as well. Survey method is used for data collection. 120 respondents were interviewed from Faisalabad city by using interview schedule as a tool of data collection. Data was collected during November-December 2012 and the collected data was analyzed by using SPSS. Chi-square, correlation and gamma test was applied to check the association between the variables. Different variables checked related to causes and effects of environmental pollution.

Keywords: Environmental pollution (Air, Water, Land and Noise pollution), Health effects, Pollutants, Environment, chi-square, Correlation, Gamma statistics

1. INTRODUCTION:

Environment in its wider sense includes everything which is external to human being. Environment may be defined as "an aggregate of all external conditions and influences affecting life development of an organism, human behavior and society". The "creature of Universe" has created our earth with the most marvelous biodiversity. They have been blessed with a vast variety of resources for sustenance of the life. The bounties of the nature are enough for meeting the requirement of all living organisms occupying earth. The almighty Allah has appointed the human as his "Khalifa" on the globe so that the mankind may continue his existence but also allows other flora and fauna to flourish, of course, maintaining certain desired level of natural resources. Thus a delicate relationship exists among the three occupants of the mother earth i.e. humans, other living organisms and the natural resources. Nobody is permitted to misuse the protected gifts both in quality and quantity (Rehana, 2007).

Environmental pollution means pollution of the environment due to release of any substance from any process which are capable of causing harm to man and other living organisms supported by environment (Hussain, 1998).

Environmental pollution is "the contamination of the physical and biological components of the earth/atmosphere system to such an extent that normal environmental processes are adversely affected" (Kemp, 1998).

This paper focused on the four types of environmental pollution that seriously affects the human health and the whole environment.

a) AIR POLLUTION

Air pollution is the introduction of chemicals, particulate matter, or biological materials that cause harm or discomfort to humans or other living organisms, or cause damage to the natural environment or built environment, into the atmosphere. The atmosphere is a complex dynamic natural gaseous system that is essential to support life on planet Earth. Strato spherico zone depletion due to air pollution has long been recognized as a threat to human health as well as to the Earth's eco systems. Indoor air pollution and urban air quality are listed as two of the world's worst pollution problems in the 2008 Blacksmith Institute World's Worst Polluted Places report (Duflo, *et.al*, 2008).

Rapid industrialization, urbanization and mechanized transport are introducing new and disturbing elements into the environment. A variety of factories, chemical mills, machines are adding to environmental problem and vehicles as well as Industrial smoke are causing wide spread respiratory diseases and discomfort. The devastation caused by atomic radiation and fallout is too well known in this connection (Khan, 1992).

Polluted air adversely affects the health of human beings, animals, plants, soils, damage buildings and other property. There are five main classes of pollutants: carbon monoxide, hydrocarbons, nitrogen oxides, sulpher oxides and particulates. When the concentration of the pollutants in the air becomes very high, many people had difficulty of breathing and as a result few deaths may occur. Air pollution contributes the incidence of Bronchitis, emphysema and other respiratory diseases. Among children air pollution has been shown to be associated with the incidence of asthma, acute respiratory infections, allergies and other ailments (Colls, 2002).

In metropolitan cities, widespread use of low quality fuel, combined with a dramatic expansion in the number of vehicles. On Pakistani roads, had led significant air pollution problems. Lead and Carbon emissions are major air pollutants in urban centers such as Karachi, Lahore, Faisalabad and Islamabad (ENN, 2002). In large cities, the emission from vehicles is another source of pollution. It is estimated that vehicles emit 25 times more the amount of Carbon Monoxide, 20 times the amount of hydrocarbons and 3.6 times the amount of nitrous oxide of an average vehicle in Pakistan as compared to United States (Jahangeer, 2000). The other sources of pollution are sewerage water, industrial wastes and disposal and controlling emissions from factories, particularly those located in residential areas, pollution of subsoil drinking water because of seepage of industrial effluents and sullage and inadequate solid waste disposal. A village near Lahore hundreds of cases of deformity of bones was found and it was due to contaminated drinking water (Dawn, 2002).

Every year 25 billion pounds of toxic pollutants are added to the environment by the factories and mills. Additionally, 22 billion pounds per year of pesticide (eight ponds per citizen) are sprayed on our crops. Certain

pesticides that are illegal are also used in other countries on food. Annual world production of synthetic organic chemicals has grown exponentially since the early 20th century. The majority of artificial chemical have never been screened for toxicity (Donohoe, 2003).

Since industrialization began, there has been 29 percent increase in atmospheric carbon dioxide, with current annual production reaching 6 to 8 billion tons. The top one fifth of the world's nations accounts for 63 percent of global CO2 emissions, the lowest one fifth just two percent (Donohoe, 2003).

SOURCES OF AIR POLLUTION

There are natural and anthropogenic (human-made) causes of air pollution.

Natural Sources

Dust from natural sources, usually large areas of land with little or no vegetation. Methane, emitted by the digestion of food by animals, for example cattle. Radon gas from radioactive decay within the Earth's crust. Radon is a colorless, odorless, naturally occurring, radioactive noble gas that is formed from the decay of radium. It is considered to be a health hazard. Radon gas from natural sources can accumulate in buildings, especially in confined areas such as the basement and it is the second most frequent cause of lung cancer, after cigarette smoking. Smoke and carbon monoxide from wildfires. Volcanic activity, which produce sulfur, chlorine, and ash particulates (EPA, 2010).

Human sources

It is however the "*anthropogenic causes*" that we are mostly interested in, as they no doubt play the most important role in polluting the Earth's atmosphere. "Mobile Sources" include motor vehicles, marine vessels, aircraft and the effect of sound etc. Chemicals, dust and controlled burn practices in agriculture and forestry management. Controlled or prescribed burning is a technique sometimes used in forest management, farming, prairie restoration or greenhouse gas abatement. Fumes from paint, hair spray, varnish, aerosol sprays and other solvents (EPA, 2010).

Fossil fuels (oil, gas & coal) are the largest anthropogenic sources of air pollution – they are widely used in industry and everyday life. *Population growth* causes the demand for food and other goods to go up, which is met by expanded production and use of natural resources. This then leads to higher levels of atmospheric pollution. *Globalization* has in a way become a facilitator of air pollution. Big industry takes advantage of lax environmental controls in developing nations and moves its manufacturing facilities to such "pollution havens" from where air pollution travels around the world without any obstacles (Ehrlich *et al*., 1977).

EFFECTS OF AIR POLLUTION

Air pollution has both acute and chronic effects on human health. Health effects range anywhere from minor irritation of eyes and the upper respiratory system to chronic respiratory disease, heart disease, lung cancer, and death. Air pollution has been shown to cause acute respiratory infections in children and chronic bronchitis in adults. It has also been shown to worsen the condition of people with preexisting heart or lung disease. Among asthmatics, air pollution has been shown to aggravate the frequency and severity of attacks (Mishra, 2003).

b) WATER POLLUTION

The effects of water pollution are varied. They include poisonous drinking water, poisonous food animals (due to these organisms having bio accumulated toxins from the environment over their life spans), unbalanced river and lake ecosystems that can no longer support full biological diversity, deforestation from acid rain, and many other effects. These effects are, of course, specific to the various contaminants (Mission, 2009).

Waterborne diseases caused by polluted drinking water:

- Typhoid
- Amoebiasis
- Giardiasis
- Ascariasis
- Hookworm

Waterborne diseases caused by polluted beach water:

- Rashes, ear ache, pink eye
- Respiratory infections
- Hepatitis, encephalitis, gastroenteritis, diarrhea, vomiting, and stomach aches

Conditions related to water polluted by chemicals (such as pesticides, hydrocarbons, persistent organic pollutants, heavy metals etc):

- Cancer, incl. prostate cancer and non-Hodgkin's lymphoma
- Hormonal problems that can disrupt reproductive and developmental processes
- Damage to the nervous system
- Liver and kidney damage
- Damage to the DNA
- Exposure to mercury (heavy metal) (Akthar, 2006).

c) LAND POLLUTION

Certain materials, such as lead, are toxic to humans, thus if this compound is introduced into the air, land or water, it can lead to serious health complications for surrounding human populations. Most land pollution affects animals that live off of the land, such as cows, goats and other herbivores. If these animals dine on plants that have been introduced to toxic chemicals, they can pass on deadly diseases to animals higher on the food chain, including humans (McLelland, 2010).

Following are further negative effects of soil pollution.

- Causes cancers including leukemia
- Lead in soil is especially hazardous for young children causing developmental damage to the brain
- Mercury can increase the risk of kidney damage; cyclodienes can lead to liver toxicity
- Causes neuromuscular blockage as well as depression of the central nervous system
- Also causes headaches, nausea, fatigue, eye irritation and skin rash (The Encyclopedia, 2010).

d) NOISE POLLUTION

Before the explanation of the effects of noise pollution it is necessary to explain the method which is used for measuring noise.

Measuring noise

Noise intensity is measured in decibel units. The decibel scale is logarithmic; each 10-decibel increase represents a tenfold increase in noise intensity. Human perception of loudness also conforms to a logarithmic scale; a 10-decibel increase is perceived as roughly a doubling of loudness. Thus, 30 decibels is 10 times more intense than 20 decibels and sounds twice as loud; 40 decibels is 100 times more intense than 20 and sounds 4 times as loud; 80 decibels is 1 million times more intense than 20 and sounds 64 times as loud. Distance diminishes the effective **(**The Columbia Encyclopedia, 2008**).**

Effects

Noise is a prominent feature of the environment including noise from transport, industry and neighbors. Exposure to transport noise disturbs sleep in the laboratory, but not generally in field studies where adaptation occurs. Noise interferes in complex task performance, modifies social behavior and causes annoyance. Studies of occupational and environmental noise exposure suggest an association with hypertension, whereas community studies show only weak relationships between noise and cardiovascular disease. Aircraft and road traffic noise exposure are associated with psychological symptoms but not with clinically defined psychiatric disorder. In both industrial studies and community studies, noise exposure is related to raised catecholamine secretion. In children, chronic aircraft noise exposure impairs reading comprehension and long-term memory and may be associated with raised blood pressure. Further research is needed examining coping strategies and the possible health consequences of adaptation to noise (Matheson, 2003).

There is no doubt that the noise affects human health adversely. The noise may result in loss of hearing, stress, high-blood pressure, loss of sleep, distraction affecting productivity, and a general reduction in the quality of life. The effects of noise are difficult to quantify because tolerance levels among different populace and types of noise vary considerably. There is a large amount of scientific literature assessing the effects of noise on human beings. Indiscriminate use of horn by the vehicles and wide spread use of loudspeakers in social and religious ceremonies caused several health hazards to the urban inhabitants. It may cause deafness, nervous breakdown, mental disorder, heart troubles, high blood pressure, dizziness and insomnia (Bhargawa, 2001).

Exposure to noise pollution exceeding 75decibels for more than eight hours daily for a long period of time can cause loss of hearing. The hazards increase with the intensity of the noise and the period of exposure. The sound produced by a bursting cracker, exceeding150dB, can cause a ringing sensation called 'tinnitus' and can impair hearing permanently. In general about 1 percent of the population suffers from noise-induced pollution.

The noise level produced by household equipment and appliances sometimes reaches up to 97 dB which is more than double the acceptable (45dB) noise level. This excessive noise could carry several ill-effects viz. annoyance, speech interference, sleep disturbance, mental stress, headache, and lack of concentration (Nagi *et al.,* 1993).

The workers exposed to high noise levels have a higher incidence of circulatory problems, cardiac diseases, hypertension, peptic ulcers, and neurosensory and motor impairment.

The adverse effects of noise have not even spare the birds (Robins, sparrows, wrens and blackbirds).Those living near busy roads could not hear each other and thus unable to contact for propagation (Deutche, 2003).

SIGNIFICANCE/INTENSITY OF THE PROBLEM IN PAKISTAN

Pollution is a major environmental problem in the most developing as well as developed countries. Most of these countries such as U.S have been quite successful in solving these problems by passing out certain environmental laws and producing alternatives to such sources which cause a lot of pollution such as coal and oil power stations. There are also laws which make sure that the waste from the industries is being disposed off correctly and is not in any way harmful to the environment. However in Pakistan the pollution problems have been rising since it got its independence. Hence this problem is increasing day by day which may lead in the destruction of our natural environment as well as our own (Mahmood, 2008).

The level of air pollution in Pakistan's two largest cities, Karachi and Lahore, is estimated to be 20 times higher than World Health Organization standards. Islamabad, the capital, is perpetually smothered by a thick cloud of Smog that hides views of the Margalla Hills that tower over the city's tree-lined streets. Pollution is alive and well in Pakistan. Whether it's from cars, factories or other sources, Pakistanis are regularly breathing in pollution. Sadly, few know about its disastrous effects on their and their children's health. At the least, pollution causes coughing, sore throat and nasal discharge. At the worst it leads to asthma, tumors, lung damage and death (Rizvi, 2000).

The levels of ambient particulates, smoke particulates and dust, which cause respiratory diseases, are twice the world's average and more than five times as high as that in industrialized and Latin American countries (Hassan, 2007).

Pakistan has one of the highest childhood death burdens in the world, and pneumonia is the main single cause of death. As a contributor to the pneumonia burden, the country has a significant indoor air pollution (IAP) problem. Biomass fuel (wood, crop residues, and animal dung) which is being used in four fifths of all households in Pakistan is the major source of IAP when it is burned for cooking, space heating and lighting homes. Biomass is mostly burned in inefficient three-stone stoves leading to incomplete combustion and high levels of indoor air concentration of smoke. There is a dearth of scientific studies in Pakistan to relate IAP to health effects; consequently IAP is not a recognized environmental hazard at policy level (WHO, 2006).

In Pakistan the problem of water pollution is also growing at an alarming rate. The phenomena1 increase in country's population has brought unprecedented pressure on safe drinking water. Water born diseases account for 20 to 30% of all hospital cases and 60% infant deaths (Government of Pakistan, 2000).

2. OBJECTIVES OF STUDY:

The main objective of this study is to dig out the causes and effects of the environmental pollution on the human health

- To identify the awareness of respondents about the "Very Known Sources" of pollution.
- To analyze the "Environmental Factors" engage in producing the physical and mental healthiness problems of peoples.

3. METHODOLOGY

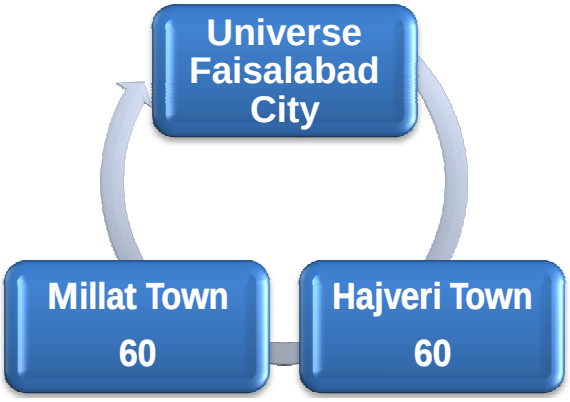
The methodological techniques and ways of analyzing the observations play a significant role in social research. Social scientists have commonly been using comprehensive sociological approach and advance techniques in social research in the modern era. Social scientists now use the sophisticated methodological tools and techniques in social research. Therefore, methodology is a frame for researcher. Methodology is actually a conceptual sketch or it is the way that how to collect and analyze the information.

"Methodology is the study of the principle of investigation, including philosophical foundation of choice of methods" (Green and Browne 2005).

The present study had been conducted in the city area of Faisalabad. The target population of present study was consisted of all the people living in Faisalabad city. Sampling frame was prepared in order to draw the sample. A sample of 120 respondents were draw by using Simple random sampling technique. Moreover data was collected with the help of well structured interview schedule. One hundred and twenty households were interviewed. Chi-square test. Correlation and Gamma Statistics were applied to check the central tendency and to ascertain association between independent and dependent variables.

SAMPLING FARME

A sampling frame is a complete map that contains all the sampling units in a population (Nachimias and Nachimias, 1992).



Chi-square

Chi-square test was applied to ascertain relationship between independent and dependent variables. Chi-square was computed by following formula:

$$X^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})\ 2}{\text{Expected Frequencies}}$$

$$X^2 = \sum \frac{(O - E)^2}{E}$$

O = Observed value/frequency
E = Expected Value/frequency
∑ = Total sum

Gamma Statistics

The value of Gamma showed the strength and direction of the relationship between independent and dependent variables. Calculations were made by using the following formula:

$$\text{Gamma} = \frac{Ns - Nd}{Ns + Nd}$$

Where:

Ns = same order pair

Nd = Different order pair

Correlation

Pearson product-moment correlation coefficient, also known as *r*, *R*, or Pearson's *r*, a measure of the strength and direction of the linear relationship between two variables that is defined as the (sample) covariance of the variables divided by the product of their (sample) standard deviations.

$$r = \frac{1}{n-1}\sum_{i=1}^{n}\left(\frac{x_i - \bar{x}}{s_x}\right)\left(\frac{y_i - \bar{y}}{s_y}\right)$$

RESULTS AND DISCUSSIONS

It is imperative to carry out detailed survey in order to find out the facts and figures related to the social problem. Analysis and interpretation of data are the most important steps in scientific research. With out these steps, generalization and prediction cannot be achieved which is the target of the scientific research. Generalization and conclusion are drawn on the basis of characteristics and attitude of the respondents.

Research Hypothesis: ***Higher the age of the respondents, higher will be opinion that water pollution creates the health problems for people***

Table 1: Association between the age of the respondents and problems created by water pollution

Age of the Respondents	**DISEASES FROM WATER POLLUTION**				**TOTAL**
	GASTRO	DIARRHEA	HEPATITAS	ABOVE ALL	
19-28	8	11	5	0	24
29-38	8	15	20	32	75
39 OR ABOVE	6	2	4	9	21
TOTAL	22	28	29	41	120

Chi-Square=24.613 d.f=6 P-value (Significance) =0.000 Gamma= 0.374 Correlation=0.259**

*** = Significant**

****= Highly Significant**

The table (01) represents the Association between the age of the respondents and problems created by water pollution and the value of Chi-Square shows the highly significant relationship between the variables. Therefore, the hypothesis “Higher the age of the respondents, higher will be opinion that water pollution creates the health problems for people” is accepted. Moreover, the value of Gamma=0.374 and r=0.259 shows a strength of positive relationship between predictor and response variables

Similar results were found by NEO US Government (2003). They reported that Pakistan generates over 50,000 tons of solid water per day; out of which only 20 to 25 percent is collected but not disposed off in the proper manner; causing serious air, water and land pollution and health hazards. About 47% of rural population is still without access to safe drinking water, and nearly 84% of rural population is without sanitation facilities. Water borne diseases account for 20 to 30 percent of infant deaths in the country.

Hypothesis: Family type and disease from Air pollution are associated.

Table 2: Association between family type and different types of diseases which they were facing due to air pollution.

TYPE OF FAMILY	TYPES OF POLLUTION					TOTAL
	SKIN DISEASE	LUNGS DISEASES	THROAT INFECTION	EYES PROBLEMS	CHEST INFECTION/ASTHMA	
NUCLEAR	9	2	7	7	4	29
JOINT	9	20	23	19	20	91
TOTAL	18	22	30	26	24	120

Chi-Square=10.139 d.f=4 P-value (Significance) =0.038* Gamma= 0.189 correlation=0.129

The table (02) shows the association between family types and health problems created by environmental pollution and the value of Chi-Square shows there is a significant relationship between family type and disease and the research hypothesis "family type and diseases caused by air pollution" is accepted. Moreover, the value of Gamma=0.189 and r=0.129 shows a strength of positive relationship between dependent and independent variables.

Similar results were found by Majeed, (2002). He concluded that air pollution effects the health of people, causing eye problems, asthma and headache. Air pollution also effects their social terms and their economic conditions. Males as compared to females are more affected by environmental pollution.

Hypothesis: Higher the education of the respondents higher will be opinion that industries are the caused of environmental pollution.

Table 3: Association between education of the respondents and industries as a caused of environmental pollution

EDUCATION OF THE RESPONDENTS	INDUSTRIES CAUSED OF ENVIRONMENTAL POLLUTION					TOTAL
	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE	
SSC & HSSC	8	11	8	7	18	52
GRADUATION	7	8	15	10	3	43
POSTGRADUATION	3	3	7	9	3	25
TOTAL	18	22	30	26	24	120

Chi-Square=18.706 d.f=8 P-value (Significance) =0.017* Gamma= -0.071 Correlation= -0.052

The table (03) shows the Association between education of the respondents and industries as a caused of land pollution and the value of Chi-Square shows there is a significant relationship between education of the respondents and industries as a caused of environmental pollution and the research hypothesis "Higher the education of the respondents higher will be opinion that industries are the cause of environmental pollution" is accepted. Moreover, the value of Gamma= -0.071 and r= -0.052 shows a strength of negative relationship between explanatory and explained variables.

Similar results were revealed by Dominion Post, (2010) which published that industries in the metropolitan cities continuously emitted gases in the air and solid wastage and liquid in the air, land and water that caused environmental pollution. Air pollution is accelerating and CO_2 in the air has risen from 270 parts per million to 380ppm since pre- industrial times. Predictions are that 450ppm could be reached by 2040 if emissions continue at today's rates.

Similar results were found by Duhigg, (2009). He reported that in the last five years alone, chemical factories, manufacturing plants and other workplaces have violated water pollution laws more than half a million times.

Hypothesis: higher the income of the respondents, higher will be opinion that huge traffic volume is a reason of environmental pollution

Table 4:Association between income of the respondents and huge traffic volume caused environmental pollution

INCOME OF THE RESPONDENTS	**INCREASING TRAFFIC VOLUME CAUSED ENVIRONMENTAL POLLUTION**			
	TO GREAT EXTENT	TO SOME EXTENT	NOT AT ALL	**TOTAL**
Upto 10,000	3	21	0	24
10,001—20,000	12	30	33	75
20,001 OR ABOVE	3	8	10	21
TOTAL	18	59	43	120

Chi-square=19.945 d.f=4 P-value(Significance)=0.001 Gamma= 0.368 Correlation=0.212**

Data presented in table (04) reveals the association between income of the respondents and huge traffic volume caused environmental pollution and the value of chi-square shows the highly significant relationship between variables that points out that the hypothesis "higher the income of the respondents, higher will be opinion that huge traffic volume is a reason of environmental pollution" is accepted and the value of Gamma=0.368 and r=0.212 shows a strength of positive relationship between regressor and regressand

Similar results were found by Jahangeer, (2000) He described that in large cities, the emission from vehicles is another source of pollution. It is estimated that vehicles emit 25 times more the amount of Carbon Monoxide, 20 times the amount of hydrocarbons and 3.6 times the amount of nitrous oxide of an average vehicle in Pakistan as compared to United States.

Hypothesis: opinion of people about Noise pollution as a reason of frustration and restlessness
Table 5: Association between people opinion about problems created by noise pollution

PROBLEMS FROM NOISE POLLUTION	**OPINION ABOUT PROBLEMS FROM NOISE POLLUTION**		
	AGREE	DISAGREE	**TOTAL**
FRUSTRATION	76	11	87
RESTLESNESS	0	33	33
TOTAL	76	44	120

Chi-square= 78.621 d.f=1 P-value (Significance) =0.000 Gamma= 1.00 correlation=0.809**

The table (05) shows the Association between people opinion about problems created by noise pollution and the value of Chi-Square shows there is a highly significant relationship between education of the respondents and industries as a caused of environmental pollution and the research hypothesis "opinion of people about Noise pollution as a reason of frustration and restlessness" is accepted. Moreover, the value of Gamma= 1.00 and r= 0.809 shows a strength of strong positive relationship between explanatory and explained variables.

Similar results were found by Bhargawa, (2001). He concluded that the noise may result in loss of hearing, stress, high-blood pressure, loss of sleep, distraction affecting productivity, and a general reduction in the quality of life.

CONCLUSION

In the light of the results of the present study the following conclusions are drawn:

- Industries and unbalanced infrastructure of traffic have created a lot of problems for the dwellers. Industries have been discharging waste material in gasses, liquid and solid form which has been destroys the crops and human health.
- People are facing many diseases due to pollution like Hepatitis, Lung diseases, Throat diseases, Gastro, Diarrhea, Skin diseases and many other types of health infections.
- Polluted water is also a major problem of the people in studied areas. Residents of that areas said that the sanitation and drainage system is improper due to which they are suffering from many problems.
- Abating pollution is an exceptionally important concern because of pollutions' harmful effects on the person's health, on climate and on the environment. Clean and healthy atmosphere is essential for good health of the people. People cannot inhale in polluted air.

Abating pollution is an exceptionally important concern because of pollutions' harmful effects on the person's health, on climate and on the environment. Everybody is a stakeholder as we are all inhabitants of this one and only mother earth. Everyone should therefore be personally responsible for the upkeep of the environment through cooperation and active participation in making the atmosphere pollution free.

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