

COMPARATIVE STUDY ON THE PERCEPTION OF ENVIRONMENTAL ISSUES  
ACROSS GENDERS



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ISSUES ACROSS GENDER**



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### **ABSTRACT**

*Our environment is indeed a blessing and held in such a way that it sustains all kinds of lives on the planet earth. With the increase in industries and advancement in technology the human beings no doubt progressing rapidly on one hand but interfering in the natural setting of environment on the other. The whole world is facing environmental issues which sooner or later will become so worst and irreversible if those are not controlled world widely as soon as possible. The previous literature showed many dimensions and issues whole world is facing right now. The foremost intent of this study is to analyze the perception of males and females regarding environmental issues. The sample size of the research was consisted of 670 respondents which was resolute firstly, with the help of multistage cluster sampling for the division of sectors in Islamabad city than proportionate sampling technique was used to draw sample from each sector in equal proportions. The survey was designed in order to collect data from the respondents through the help of questionnaire. The collected data was then analyzed with SPSS by using univariate analysis i.e., analyzed each variable individually. After univariate analysis, the researcher also focuses on bivariate analysis and used crosstabulation along with other suitable inferential analysis techniques to check the relationship between the selected variables. The outcome of the result shows that there is no significance difference in the perception of males and females regarding environmental issues. While knowledge and attitude towards environmental problems have negative relationship with age. The longitudinal research is recommended to check the difference in of prevailing research over a period of time.*

**Key Words: Gender, Perception, Environmental Issues, Pakistan**

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**Chapter No. 1**  
**INTRODUCTION**

Our surrounding includes many living and non-living things that contribute to make a whole environment. Originally environment is a French word and it is derived from the word “Environ” that basically means “Surrounding”. Environment consists of both biotic (living) and abiotic (non-living) organisms. Environment synchronizes the lives of all the organisms including animals and plants as well as human beings. Human beings merge with the environment more strenuously than other living organisms. Diamond (2009) defined environment as all the things like water, air, animals, microorganisms, land and plants, all are components of environment that surround us is our environment. Environment includes living and non-living organisms. Environment has further two types. One is naturally occurring physical environment like water; soil and air while the other is made by man consist of our cultural, economic and social systems.

There are a lot of issues associated with the changes done by human beings to the naturally occurring environment. The humans started industrializing the cities and brought the machinery to the residential areas. It is the nature of mankind to find easy ways in order to get facilitated and ease but without thinking about the consequences, human being made their life easier by finding easiest ways and living on one while harm their surroundings on the other (Twig and John 2004).

In primitive societies and before Industrial Revolution, people had only limited sources to do their work like they depend mostly on other people as well as animals for help in certain chores. After Industrial Revolution people and animals were replaced by machinery for more production and efficiency. The usage of machinery delivered the energy and competence to do the entire work. But as man effects and alters the environment, the environment also affects the humankind in return. At the very beginning of 20<sup>th</sup> century, due to globally interrelated world many became concerned with the protection of naturally occurring resources as they witness the waste produced as a result of man-made technology (Barbara 2013).

In the early 20th century, the beginning of the so-called third industrial revolution, conservation and preservation of natural resources became a matter of interest and concern for many (Kelly 2012).

The issues regarding environment varies with respect to areas but there are some environmental issues faced by humankind globally. Some of these issues include pollution of air, water and soil

caused by the smoke emit from vehicles and industries, blending of toxins from industries to the clean water and amalgamation of toxic materials into the soil respectively. These kinds of pollution are also responsible for emergence of diseases and health hazards. Air pollution is the root cause of diseases associated with air like intake of harmful smoke and gases can severely damage human lungs. Moreover, water pollution cause water borne diseases as well as hazardous for marine life. Soil pollution is responsible for growing barren land which either produce nothing or the crops yielded from them become poisonous for health. Secondly, the most gigantic global environmental issue is global warming that is caused by outpouring of different harmful gases by human kind which as a result is responsible for melting of glaciers, extreme weather conditions and floods. Moreover, exhaustion of naturally occurring resources is also a major problem faced globally. Furthermore, the rising level of population is one of the causes of this depletion of resources and many countries are still doing efforts to control the population but are failed till now. Many developed countries are responsible for dangerous consequences by dumping their industrial wastes into the oceans and seas of underdeveloped or developing countries. Excessive use of plastic is also a cause in increasing the waste which isn't easy to decompose. In addition to these issues, we're losing the diversity of different plants and animals that cause deforestation and extinction of species respectively. On top of these issues is the attenuation of protective ozone layer in our space that shields us from harmful rays of sun (Oven et al. 2006).

The basic definition of how the scientists or researchers define environment and its issues generally are mentioned above but sociological definition varies as it is obvious from above mentioned definition of environment that it has two types one is naturally occurring environment and second is man-made that includes cultural, economic and social systems. The subject of sociology focuses on both changes like the subject matter of sociology could be the interest to analyze how changes in natural occurring environment bring change in man-made environment (Hannigan 2014).

Pakistan is a blessed country which has four seasons and this country is fully loaded with natural resources. But unfortunately, Pakistan is still a developing country and trying to be in the list of developed countries. Pakistan is also facing all above-mentioned issues like deforestation, lack of clean drinking water, pollution of air; water and soil along with issues arise by over population

and uncontrolled urban development. Many of these issues are highlighted by many researchers and in spite of facing all these issues government has not taken any initiative to stop all of these issues. Furthermore, many people face these issues but they don't know how their behavior can help collectively to save the environment (Khwaja and Mahmood 2012).

Now moving towards the sociological point of view and researches, let's discuss the changing patterns of different variables with environment.

Issues arise by the change in climate is now becoming the global concern because of the challenges that are estimated by many scientists including social scientists. These issues need to be addressed by not only the urban planners, economists, social and natural scientists, policy makers but also it is a responsibility of public as well. The very first challenge is to devise the action plans to overcome the challenges that can be faced by humans which are actually because of human changes to environment but will affect all the living things (Makki, Abd-El-Khalick and Boujaoude 2003).

The treatment of abrupt climatic disasters will solely rest on fluctuations in climate ethics and the choices in our way of life. An international study done by (Dunlap and Gallup 2008) in which they surveyed twenty-four countries across the world including developing countries and the developed ones. They found that the people from developing countries were highly alarmed by the situation of the environmental changes. Many people are unaware of the common harmful pollutants that can severely damage environment. The dilemma prevails in the reality that people do not apprehend the consequences of harm caused by the pollutants.

Here comes the important role of education to aware the people to choose the way of living suitable to prevent the environmental problems and to aware them about coming challenges in future so they can be able to avoid them and hence they'll be able to conserve a healthy environment (UNESCO 2005).

Many KAP (Knowledge, Attitude, Practice) studies in developing and developed nations are done by the researchers in order to check the knowledge, interest, behavior, attitude and practices regarding environmental problems and their relationships with the demographic variables. Studies generally tend to examine students' environment attitudes in relation to environmental knowledge, interest, behavior as well as socio-economic variables (Negev et al. 2008).

Lavonen and Meisalo (2004) did research on the attitudes of Finnish comprehensive school's students on environmental issues across gender differences. Researchers found positive attitude towards environmental issues across gender. Researches show that many students with moderate level of knowledge are still highly concerned with the environmental problems.

Huang and Yore (2004) conduct a comparative study on the 5<sup>th</sup> grade Canadian and Taiwanese students. The students from both countries have positive behavior and attitudes towards environmental issues as well as they uttered highly emotional concerns toward environment in spite of moderate level of knowledge regarding environment. Many researchers found that student having little knowledge about environmental problems still possess positive attitudes toward environment. A study by (Makki, Abd-El-Khalick, and Boujaoude's 2003) analyze that the high school students from Lebanese showed optimistic attitudes in spite of having insufficient environmental knowledge. The attitudes of young students towards environmental issues are also investigated by many Turkish researchers. A study by (Cavas et al. 2009) investigated that Turkish students are not only have positive attitudes about environmental issues but also, they are concerned to find solutions for the problems as well as they are optimistic about the future.

A broader level comparative study named ROSE (Relevance of Science Education) conducted surveys by Sjoberg and Camilla (2004) across forty countries of world. The results showed that students were optimistic about future and they believed that they individually could influence what will happen to the environment in future. While another objective of study was to check the difference in attitude across gender which showed no statistically significance and hence found that males and females were equally concerned about the environmental issue.

Many researchers believe that educational institute plays a vital role in spreading awareness among students (Tuncer et al. 2009). Some studies investigated the factors that influence the attitudes of students and found that student's enthusiasm along with their background, a healthy learning environment and a competent group of instructors plays significant role in shaping the attitudes of students (Kuhlemeier, Bergh and Lagerweij 2008). While Gamoran and Nystrand (2003) believed that social climate plays important role in developing attitudes of students.

The issues regarding environment are so diverse that they cannot be handled by government level until or unless environmental preservation and protection is ensured by the public. The public need to be alarmed by the current scenario and should take serious steps to safe environment on time. The dilemma is the possibility that people may not be aware of the local climatic contaminants that cause harm to the environment. If people are not aware of the pollutants than they cannot be blamed for the conservation of environment. So, efforts are required from ground level by sensitizing the people about the issue and further actions are needed to stop damaging the environment.

### **1.1 Statement of the problem**

Islamabad is a planned city and capital of our country. Today we're facing serious environmental issues that are not just confined to a limit but growing each passing day. Environmental issues are worldwide recognized phenomenon these days while these issues become the concern of general public after the publication of report named "The limits of growth" by Meadows and Meadows in 1972. After this report many other institutions like International Panel of Climate Change (IPCC) and The World Watch Institute put forth their efforts to collect and publish data regularly on the fluctuating conditions of naturally occurring environment. Later on, UN holds environmental conferences in 1992, 1997 and 2007 in Rio-de-Janeiro, Kyoto and Bali respectively. A research by Lee (2008) argued that recognized education related to environmental issues by official institutions is necessary in order to develop promising behavior towards these issues. While if we look at the condition and concerns regarding climate issues in Pakistan, though students learn many concepts like global warming, use of ecofriendly products, recycling, pollution, etc. but as a part of their syllabus of science subjects and environmental issues are not focused separately. Having knowledge of these concepts isn't enough as only knowing a phenomenon can never portray a real picture and propose solution of a problem. This study aimed on finding social connections with environmental issues and how the perception about environmental problems varies or not across genders, age and different educational levels. The way to enhance environmental protection is the responsibility of government as well as more dependent on the public that use the resources and can be able to add or decrease the environmental challenges. The increase in awareness as well as sense of responsibility at individual level and implementation of rules by government on broader level can prevent the abrupt environmental changes and save it for healthy future.



There could be a possible solution to reduce climatic hazards in future by creating a sense of love care in youth so that in future the drastic change in climate could be reduce or controlled. The youth can be aware by making the highlighted environmental issues be the part of curriculum so that they can learn throughout life and on communal level. The education plays a vital role in letting people to seek knowledge in order to accept a healthy lifestyle by making them aware with knowledge (Maton 2013).

## **1.2 Research Questions**

- What is the perception of males and females towards environmental issues?
- Is the difference of age group create divergence in attitude regarding environmental issues?
- Is the difference of age generate deviation in the knowledge related to the environmental problems?
- Is there any association between the education and the perception of environmental issues?

## **1.3 Objectives**

- To analyze the perception of males and females regarding environmental issues.
- To find out the similarities and differences in attitude of people belong to different age groups towards environmental issues.
- To examine the comparison in the knowledge of people belong to different age group about environmental hitches.
- To investigate the role of education in perception building towards environmental issues.

## **1.4 Significance of the Study**

Like many other developing countries, Pakistan is one of those countries that have very little resources to conduct researches on many issues and environmental problem is one of them. The study because of its nature will be useful for NGOs and INGOs in order to know the patterns of knowledge people possess here regarding environmental issues. An effort was done by the researcher to add up in academic research related solely to the residents of Islamabad city. This study will be beneficial in finding the flaws about where we are lagging in sensitizing people which further will be useful in planning awareness campaigns. Moreover, it will add up new dimensions in existing literature. Before this study, no prior studies have done that are solely

related to the residents of Islamabad city and environment specific in relation to the opinion of public. This study will also contribute to the literature of environmental sociology. Moreover, this study will be a representative of Pakistan indigenous perspectives in dominant academic literature. Last but not least, this study could be used as baseline for future researchers.

**CHAPTER No.2**  
**LITERATURE REVIEW**

This chapter includes the review of different articles, journals and books in order to find connections of this study with the previous studies. The following literature tends to cover the themes where most of the research had done previously. Literature review plays a vital role in strengthening the novelty of research problem. It also helps in authentication of suggested methodology in research. Not only this, literature review also reveals about the zeal of researcher that how much he/she was prepared for research. One of the main role literatures plays that it helps the researcher to find gap in previous studies and finding of new dimensions for current one. While this literature highlights the major climatic issues as well as environmental concerns under the themes of gender, age and education.

There is an aspect that earth has normal surface temperature delightfully amongst the freezing and boiling point of water, consequently essential for the survival for our lives, cannot be merely explained by suggesting that the trajectories of our planet earth are just at the exact space from the sun to engross the precise quantity of solar radiations. The exact nature of atmosphere make it happen to absorb precise temperature suitable for survival. If planet earth has the atmospheric conditions like Venus, the temperature of it would be of very extreme level; if earth has atmospheric conditions like Mars, it would be of extremely low temperature like living in a deep freezer which is impossible for human beings (Laskar, Jacques and Mickaël Gastineau 2009).

Moreover, the atmosphere around the earth act as a shield of precise thickness, just right to maintain precise temperature after receiving solar rays. If we compare this shield of precise thickness with Martian shield, it is way too thin and Venusian shield is too thick not precise to absorb optimal amount of temperature coming through solar radiations. The “Shield” refers to the assemblage of gases in atmosphere called as greenhouse gases as they also absorb heat just like the walls made of glass in greenhouses. The gases that act essentially as global insulators includes, carbon dioxide, water vapors, nitrous oxide and methane. Some of the sunlight go back to space in the form of heat after absorbing by the ground. The Greenhouse gases than transmit this heat back to the earth. The actual fact is that without the greenhouse effect the average global temperature of earth would be extremely cold to unbearable levels that no chances of life on earth would be possible (Gleeson et al. 2011).

Incoming Ultra Violet Radiations (UV) conveniently travel through the walls of greenhouse which is made of glass and plants can easily captivate those rays. The rays which are weaker i.e., Infrared radiations cannot travel through the walls made of glass and thus stuck inside, resulting in warming the greenhouse. This whole process allows the plants to keep nourishing in greenhouses during extreme weather of winters. The whole process holds the temperature of earth than it would be if unswerving heat of the sun could be the one and only source of heating (Whitley et al. 2010).

The phenomenon of greenhouse effect is of natural kind which is old millions of years. One of the essential roles of greenhouse is that it fluctuates the earth's temperature. This wonderful phenomenon was firstly discovered in 1827 by Joseph Fourier. Later on, John Tyndall experimentally substantiate in 1861 (Lacis et al 2007).

In (2012) Mohammed, Mokhtar and Bashir produced a research article on the topic named "A synopsis on the effects of Anthropogenic Greenhouse Gases emissions from Power Generation and energy Consumption" which claims that many of the countries are facing difficulties in the context of energy, the fluctuation as a consequence of energy utilization and production of energy that alters the climate is now getting the attention of entire world as a global problem.

For the progress of a country, electricity plays an essential role in better functioning of it. Electricity can easily be converted from one form of energy to the other as well as it can be transferred conveniently. We can easily avail electricity with mere a click to a switch board. It plays important role as principal source of energy in industrial, commercial and residential areas. The total of 40% of energy utilize in entire world is electrical energy. It is also a benchmark in measuring the economic growth of a country (Davis and Ged 2002).

The ongoing production of electricity which is increasing day-by-day is now raising the fears about the capability of atmosphere to withstand its production without harming the climate. There are estimated percentages of the sources of electricity production i.e., the electricity obtained by coal is 60% and that of fossil fuels is 63% around the world. We can say that around 38% of the total electricity is being produced by coal. As a consequence, burning of coal produces many harmful gases that cause global warming, reduction of ozone layer as well as causes acid rain. Most common harmful gases produced by the burning of coal are: sulfur dioxide, nitrous oxide and carbon dioxide. Not only these gases burning of coal produce a lot

many other deadly chemicals not suitable for health and environment. Moreover, it also releases heat and ashes (Kahn and Fritz 2006).

The combination of hydrocarbons present in the permeable geological formations are known as natural gas. Natural gas often alliance with petroleum. The essential complex that forms natural gas is methane but nitrogen oxide and carbon dioxide are also present in small quantities. The natural gas is heterogenous combination of petroleum along with-it derivatives as well as coal. According to Golob and Brus in (1993) almost 23% of the natural gas regard as non-renewable fuel being used across the globe. In (1996) Maden and Mole proposed that natural gas is used for generating 12% of the production of electricity world-wide.

Peretz, Robert and Philip in the late nineties, classified the waste into five main categories i.e., commercial, industrial, residential, sanitation and street sweeping. The negligence in proper management of gathering, storing and disposing of solid waste material can be very hazardous to the environment produced as a consequence of humanoid actions.

In the developing countries of the world, the areas with the dense population face the issues of solid wastes management which is also very necessary to cater while Pakistan being a developing country do not focus on these issues to utmost importance. There is difference in the wastes of developing and developed nation. The difference in the waste of developing and developed nations is that developing nations have higher number of factories and foods while developed nations has more proportions of plastic and papers which are recyclable (Dhussa 2002).

The departments of management for waste in the cities of Pakistan isn't working efficiently not only in assembling the garbage as well as packing off and disposing it (Batool et al. 2009).

Consequently, the environmental catastrophe effecting the health of people by degrees. This is the reason behind the increasing apprehensions of shareholders working for solid waste management. Speedy urban sprawl, increase in industries, proclivity of urban sprawl, business companies, mass production, less involvement of social groups, schemes of customer services, less role of authorities, restrictions and capabilities of localized waste management (Mustafa, Ahmed and Haq 2009).

The rapid increase in the number of populations and swift urban sprawl is currently the one of main issues faced by Pakistan (Hashim and Usman 2007). Pakistan is a developing country having many main issues yet to be focused so consequently financial plan for the management of waste is very low (Sumeera Fahim 2007). Pakistan has many communities that earn less so, they refuse to give any kind of fund for waste management. The residents of these communities are subjected to discard their wastes in the nearest unoccupied lands as well as in rivers or simply blaze their garbage (World bank 2007).

Human beings are irritated by noise pollution. The reason of noise pollution can be automated machines that throw the human being's way of life into confusion. The noise pollution is now becoming a global issue because it is increasing day-by-day. While this form of pollution is still not recognized as "pollution" in many countries around the globe. The word noise originates from Latin word "Nausea" which means "undesirable sounds" or more simply the sounds and voices that are loud and not satisfying to human beings hearing. Noise pollution can also be defined as the vocals, voices and sound in the erroneous area at inappropriate time (Batool, Chaudhry and Majeed 2009). Many researchers suggested that noise pollution is an urban phenomenon mostly occurring in urban areas effecting the people increasingly and adversely (Sumeera Fahim 2007).

Many researches show that noise pollution has direct effects on mental health of human beings. The indicators of the mental health associated with noise are as follows: profile consist of symptoms, usage of the psychoactive drugs, comfort and well-being assessment, rates of admission in mind rehabilitation centers and drugs for sleeping. Some people are more prone to be affected by noise pollution and some are at lower risk of being affected. The elders with some sort of hidden depression may affect by the noise pollution more as well as toddlers are more likely to get affected because of their incapability of dealing with the noise problem. The children living in the atmosphere with high noise pollution report weakened eminence to life (Peretz, Robert and Philip 1997).

It is concluded by many researchers that noise pollution is not directly the cause of mental sickness rather it is the factor that speed up the growth of hidden mental disabilities. Noise pollution may give rise to the headache, stress, nervousness, anxiety, sexual impotence, nausea,

quick and negative change in mood, neurosis, hysteria and unpredictability of emotions (Dhussa 2002).

One of the major causes of trash is the pollution caused by more and more usage of plastic. Plastic litter is becoming the major concern of many countries after gaining global alarming attention on media as well as government and by general public. A draft was signed by approximately 200 countries in Nairobi in December 2017 based on Marine Litter and Microplastics pledge. It postulates the countries and shareholders who signed the draft to take measures but in spite of admitting the issue, the undertaking does not comprehend lawfully obligatory contract. In the meantime, the garbage consisting of plastic materials is piling up in the oceans of the world. The rough estimate of plastic litter outreaches the oceans per year is 8 million tons. The forecasts predict that if no quick action is taken in this regard it would reach to double in 2030 and again doubled by 2050.

The major contributors of plastic litters are the seashores of subcontinent Asia primarily from United States and China. A research in 2010 shows that the areas about 50 km near to the seacoasts contributed 36% of the plastic litter around the world (Jambeck et al. 2015). Around tierce of the plastic litter is mishandled due to which it is transmitted to the ocean.

According to the United Nations Development Program (2007), one of the major challenges faced world widely is climatic change. From some past era, global warming and the climatic change in its consequence grabbed the attention of many countries. These concerns can be demonstrated by the outbreak of different campaigns and conferences at global level since 1992 after a huge conference held in Rio de Janeiro hosted by Brazil and attended by many countries. Climate change can be defined as assessable fluctuations of surroundings in the direction of life-threatening dangers along with intensifying the temperature globally. It is a measure recorded on the basis of long-term effects as it has drastic long-lasting impacts on environment (Holdren 2006).

The above-mentioned paragraph highlights that environmental issues are now known world widely to some extent and many countries are now focusing on the issues as well as planning to take actions in order to conserve the environment. The following issue is now concern of many developed and developing countries as many countries conducted researches, running campaigns and awaking their people to contribute in lessening of climatic change.



In spite of having extensive like-mindedness (Canadel et al. 2010) among the scientists that unfeasible changes have done by the humans to the climate like ignition of kerosene, the pollution caused by the industries, altering the nature of land and deforestation there are some doubtful views too about the issue (Washington and Cook 2011). As a consequence, many writers generally elaborate climatic change as fluctuations made by humans by producing kerosene and chlorofluorocarbons which causes global warming (Weart 2010). Existing knowledge and scientific proofs reveal that the planet earth encountered a mean warming of 0.6°C approximately throughout 20<sup>th</sup> century (IPCC 2001) which is not confined to this number but will increase to 2-3°C as 21<sup>st</sup> century ended (IPCC 2007).

The previous paragraph concluded that many researchers believe and harmonized in opinion that burning of greenhouse gases is responsible for global warming while some have contrary views about the issue.

It is estimated by the (IPCC 2013) that significant consequences of climatic change like rise in sea levels, extreme conditions of weather, softening of icebergs to some extent may primarily and secondarily affect the life of humans, their health, and system of ecology and sectors of socioeconomics. The evaluation of fifth report by Intergovernmental Panel on Climate Change (UN) authorizes the extremes in weather such as intense rise and fall in the temperature of ocean and weather, changes in drizzles, snow and rain, escalating altitudes of sea level that causes storms, drought and floods (IPCC 20140).

In Kenya people are more worried about the food insecurity caused by the recent floods and droughts rather than being worried about environmental fluctuations (Gok 2010). While contrary to this, the government of Kenya is alert about the issue of fluctuations in climate. The government established an approach named National Climate Change Response Strategy (NCCRS) IN 2010 and devised application plan named National Climatic Change Action Plan (NCCAP) in 2013-2017. The major insight behind this plan was to take actions in lessening of climatic issues and boost flexibility towards fluctuations in environment.

The above-mentioned paragraph shows that the people of developing countries here particularly Kenya are more focused on security of food while government is more concerned about environmental problems. The government also establishes strategy for taking actions in order to protect environment but it is not confirmed that any initiative taken yet.

According to a report, perception regarding climate change has increased along with the intensity and brutality of drastic effects caused by change in environment (UNDP 2007). But according to Leiserowitz (2006), even it is not a foremost concern of even developed countries. On the other hand, people from semi-peripheral countries are more concerned about environmental issues and considered it as a threat (Godfrey et al. 2009). While on the contrary, Pugliese and Ray (2009) in their research elaborated that developed countries are more focused on the problems caused by the change in environment as compared to developing countries.

In the above-mentioned paragraph, the literature shows that some researchers believe that developing countries are more concerned about environmental issues while some data results showed that developed countries are more thoughtful about the issues. So, it cannot be said that who is more concerned either developed countries or developing. The point is if we see more broadly and generally more or less whole world is concerned about the issues caused by the fluctuating climate.

## **2.1 Gender and Environmental Concerns**

Though environmental issues are global concerns and are linked to our lives directly and individually. Many social researchers focus on the relationship of environmental related concerns and gender more than any other background variables. A study revealed that females are more conscious and thoughtful about environment as compared to males as females are caring by nature (Dietz, Stern, Guanaco: 1998). The same idea was supported later on by another researcher Harris Survey (1991) argued that the females are not only worried about the quality of environment but they are also concerned with the policies enacted by government.

Nevertheless, a study by McIvor (1972, quoted in Van Lyre and Dunlap 1980) hypothesized the greater involvement of males in environmental concerns than females. This study also focuses on the reason of their greater interests which are supposed to being highly educated and active politically as well as communally than females. However, some studies revealed the reverse results and support females concerns more than males while suggest reasons that the focus of males are centered with economic growth and development and they see environment as a constraint in the progress of economy (Van, Lyre and Dunlap 1980).

Many researchers debated on transformations in gender roles. They believed that mothers are more caring and worried about the native ecological problems than fathers do. Researchers

further gave explanations of this hypothesis as this variance of concern relies on different roles based on gender in the community. Mothers are supposed to be more associated with wellbeing and fitness of family while fitness and wellbeing is connected with the native environmental excellence like pure water, pollution free air and solid wastes etc. On the other hand, fathers are associated with the substantial and economic welfare of their family (Stem 1993).

Some studies carried out in order to check the difference in environmental approach across changed contexts i.e., rural and urban communities. A study in Bangladesh by Sparker in 2011 revealed that students from both backgrounds possess positive approach towards environmental issues while females have greater levels of positive attitudes as compared to males. While results clearly showed the significantly higher levels of environmental concerns among rural females as compared to others.

From above mentioned paragraphs under the theme of gender we can conclude that many researches supported that females are more concerned about the environment as compared to males because of their caring nature. Some shows that males are more oriented towards environmental protection as they are more educated and politically active than females. So, we can conclude that both genders are to some or great content are concerned with issues caused by change in climate which is a positive thing generally.

**CHAPTER No.3**  
**THEORETICAL FRAMEWORK**

### **3.1 Eco-feminism**

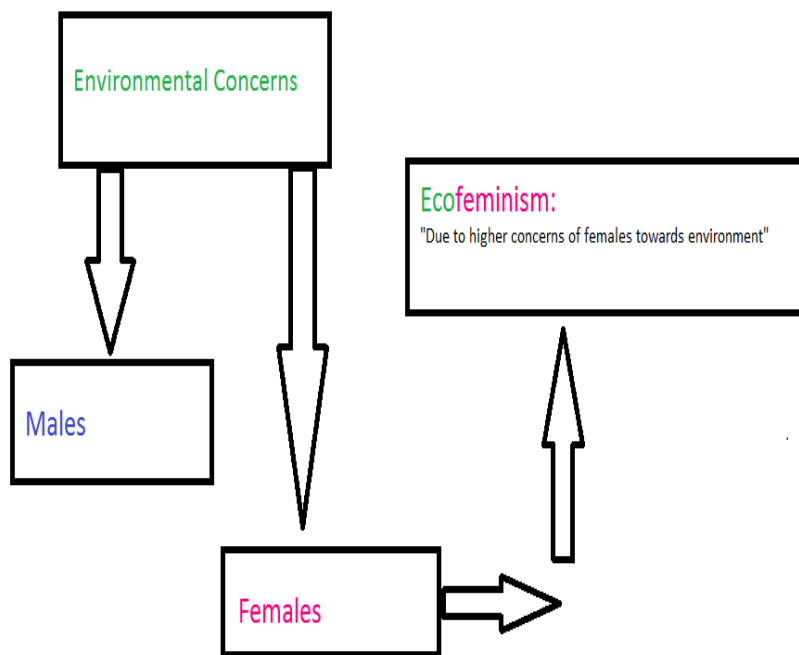
A very few researchers pay attention to the topic of gender in the study of environmental problems. Some believe that males are comparatively more active than females in political issues. They actively participate in the matters of community and possess higher levels of education so; males are supposed to be more alarmed about environmental issues than females. While on the other hand, many researchers argued that males usually worried about economic growth and developments as well as they are more focused on their jobs whereas females are supposed to be more sensitized about the excellence of environment so, they supposed to be more concerned about environmental issues (Liere and Dunlap 1980).

A book named *Le féminisme ou la mort* (Feminism or Death) was published in year 1974 in France by a French feminist named Françoise D'Eaubonne. She coined the term “**Ecofeminism**” in her book to pinpoint the precise association between Mother Nature and women. She also confessed the capabilities of females to bring an environmental insurgence. After her work, the concept of ecofeminism progressed into a branch of academic division and aimed at supporting the subsistence of environment and its relationship with females.

During the period of eighties, females were highly indulged in the movements related to environmental problems. They were deliberated under the umbrella of environmental feminism.

One of the examples of such movements is called “The Chipko movement” occurred in Uttaraanchal (a region in India). The Chipko movement was comprised of a large group of country people with a greater number of females who clustered together to stop deforestation. They also retrieved their long-established rights regarding forests which were snubbed by their Forest Department.

Although, the active participation of women for the conservation of environment has been recognized in developed countries but, with less prominence while this study aims at comparing the perception of both genders.



**Fig 3.1**

### **3.2 Social Class Hypothesis**

Education plays an important role in shaping perceptions and knowledge of a person. If we look at the **Social Class Hypothesis**, which assumes that social class which can be elaborated by education, occupational reputation and income, are absolutely accompanied with the environmental concerns. The further explanation is that upper class has solved the issues related to their basic needs and somehow middle class have also achieved their basic level of living. So, both of these classes have shifted their focus from fulfilling their basic needs to more alluring problems and environmental issues are one of them. By keeping in mind, the Maslow's hierarchy

of needs, we can assume that ecological quality can be considered as a luxury which can only be focused after fulfillment of basic needs (Liere and Dunlap 1980). Conversely, some researchers took poverty as a determinant of risk perception as if a person has to struggle for survival and is subjected to a threat on daily basis, this can be a reason to enhance one's perception of risks (Boholm 1998).

We can conclude from above mentioned hypothesis that though formal education is necessary and enable a person to have knowledge about what's happening around and how it'll affect one's life but if a person is illiterate and not equipped with the formal education but subjected to a problem on daily basis, one will develop the perception of that risk. Environmental problems are one of that issues which are faced by people to a certain level.

### **3.3 The theory of Generations**

A micro level element that can have effect on environmental concerns is age. A theory named **"The theory of Generations"** postulates that the incidents which occur in young adulthood stage of life cycle will have long lasting effects on generations.

The researchers from USA argued that the young ones aged from 18 to 30 in sixties and seventies were more concerned with the environmental issues (Malkis and Grasmick). While according to (Liere and Dunlap 1980), constant revelation of frightening facts regarding the worsening condition of environment has inerasable marks on young adults that consequently will form an ecology-minded generation. According to these researchers, cohorts from last two-three decades subjected to more detailed information about environment. They will be more concerned about environmental problems and adopt positive attitudes to conserve environment.

### **3.4 Hypothesis**

#### **Hypothesis No. 1**

**H<sub>0</sub>:**

There is no significant difference in the perception of males and females regarding environmental issues.

**H<sub>1</sub>:**

There is a significant difference in the perception of males and females regarding environmental issues.

#### **Hypothesis No. 2**

**H<sub>0</sub>:**

Increase in age results in decreased suitable attitude towards environmental issues.

**H<sub>1</sub>:**

Increase in age results in increased suitable attitude towards environmental issues.

#### **Hypothesis No. 3**

**H<sub>0</sub>:**

Increase in age results in decreased knowledge about environmental issues.

**H<sub>1</sub>:**

Increase in age results in increased knowledge about environmental issues.



**Hypothesis No. 4**

**H<sub>0</sub>:**

Education plays vital role in building the perception about environmental issues.

**H<sub>1</sub>:**

Education do not play vital role in building the perception about environmental issues.

**CHAPTER No.4**  
**CONCEPTUALIZATION AND OPERATIONALIZATION**

## **4.1 Conceptualization**

### **4.1.1 Perception**

- Concept of perception can be defined as recalling and understanding of neurological information by a person. Perception also comprise of how we reacted to the information. We can be of the opinion of perception as a phenomenon where we take in neurological information from our environment (stimulus) processed that in our mind and use that information to intercommunicate with our surroundings. In short, perception permits us to take the sonic information in, process it and make it consequential (Hochberg and Julian 1956).
- Perception can also be defined as the consequent exposure of human beings with their surrounding (Efron and Robert 1969).
- The responsiveness of certain stuff available to sense is called perception (Angell and James Rowland 1906).

### **4.1.2 Environmental issues**

- Environmental issues as per defined by Your Dictionary are the stumbling blocks with the earth sphere like (soil, air, water, etc.) which has expanded as a consequence of interference of human or by exploitation of the earth. Some highlighted environmental issues are mentioned below:  
Global warming, Air and water pollution, bottleneck of population, Soil corrosion, Demolition of biodiversity, Littering, Destruction of natural habitations, Devastation of natural resources, Outbreak on marine life, Oil slick, Atomic disputes, Acid defenestration, Environmental tragedies, Volcanic explosion, Greenhouse effect, Heavy metals, Rise in sea level, Flickering of fossil fuels, Extermination of species important for ecosystem, Soil contamination, Deforestation (Harper, Charles and Monica Snowden 2017).
- The issues arouse by the involvement of human beings with the planet system are known as environmental problems. Water, soil and air etc. collectively made the planet system necessary for human existence (Steinfeld et al. 2006).
- The problems resulting from the human activities which effects the atmosphere in which they live are called as environmental issues (Owen, Lewis and Kevin 2006).

### **4.1.3 Gender**

- On top of the two sexual categories (male and female), exclusively when deliberated with orientation to the culturally and socially variant rather than considering the biological characteristics. The term gender is also used predominantly to indicate a variety of identities that are not being consistent with the conventional philosophies of male and female. (Oxford)
- The attributes of males and females related to their psychological, social and behavioral aspects in which they lead their lives is known as their gender (Pryzgoda, Jayde and Joan 2000).
- Gender are the roles and duties allocated to the males and females by the political, social, economic and cultural powers prevail in society (Esplen, Emily and Susie 2006).

## **4.2 Operationalization**

### **4.2.1 Perception**

The potential to apprehend, discern and become conscious of the community-based phenomenon or the study of people about their sense of recognizing, understanding and reasoning about any social phenomenon is called their social perception. Within a social sphere, people usually perceive the sentiments and affections of others by observing their body language, pondering upon their form of communications i.e., rhetorical communication and non-rhetorical one. Basically, as per definition it is obvious that it is not something said to be authentic. People perceive according to their minds so, in a social setting perception may varies individually which may be true or not. In this study, researcher is focusing on the concerns of people residing in Islamabad about the environmental issues irrespective of the source of knowledge. Though environmental issues are now the problem recognized globally the aim is to know how people of Pakistan especially the residents of Islamabad perceive these issues as well as to which level they are sensitized about the problem along with their attitudes towards these problems. Perception involves past experiences with the help of which people infer about the coming action or reactions along with events. In this study, researcher aimed at analyzing the level of awareness by recording the responses under general knowledge questions about their area and

environmental issues moving further analyzing some questions regarding their attitude and finally their practices towards it so that the overall perception of people would be clearer regarding environmental issues. Shortly, perception is that people hear about the climatic issues from many sources which can be media, family, peer group etc. Witness many issues, in this case like pollution, overpopulation, climatic changes and then become aware of the problems. Basically, researcher aims at finding the perception of people about how they can reduce these threats.

#### **4.2.2 Environmental issues**

Humans under the umbrella of wellness and wellbeing of the fellow humans alter the rhythm of ecosystem and become responsible for putting the whole mankind in danger. Researcher is here more focusing on the knowledge of people about the conservation of environment so; some of the highlighted themes regarding which researcher want to collect data are as mentioned below:

Solid waste management, what could be the possible world-wide source of energy in future, sources of energy that contributes the least to environmental problems, renewable resources, the major sources of air pollution in big cities, etc. So, in the research, the researcher is trying to be more focused on the solutions for environmental issues.

#### **4.2.3 Gender**

As per conceptualized definition of gender, the researcher in this study also taking gender as an entity that distinct male and female on the bases of cultural grounds. This concept is taken by researcher to analyze the similarities and differences on basis of their gender as it is one of the important demographic variables in majority of studies which cause significant differences of opinion. So, the researcher aimed at analyzing the difference in culturally distinctive associations with being male or female.

#### 4.1.4 Conceptual Framework

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Socioeconomic characteristics

Research Variables

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➤ Gender

➤ Differences/Similarities in Opinion

➤ Age

➤ Perception of different age groups

➤ Educational levels

➤ Insight of perception belong to different educational levels.

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**CHAPTER No.5**  
**METHODOLOGY**

Methods to conduct research are crucial and plays important role in conducting any research. The findings and authenticity of data rely on suitable methodology while if not chosen correctly no one can be able to step further in research. In this chapter, the methodology to conduct the research is discussed in detail. The investigator elaborates the nature of research, universe, unit of analysis, sampling strategy, sample size, tool for data collection, technique for data collection, tool for data analysis, techniques for data analysis, limitation of the study, reliability and validity as well as ethical considerations in detail to give a complete picture of the study.

### **5.1 Research Design**

Doing quantitative research involve many steps and each step need focus in order to carry out an authentic research. While in social research, researchers also have processes to draw samples and tools to collect data as well as analysis of data. This research is quantitative in nature with a questionnaire as tool of data collection that is consisted of close-ended questions. Quantitative methodology was selected in order to obtain the percent and frequencies of gender-based differences and similarities towards environmental concerns. Comparison of both the genders was possible because of quantitative study because the study base on broader opinion of a large segment (400) of population so, qualitative study wasn't feasible. Moreover, to save time and have an idea of people's opinion was the reason to conduct this study quantitatively. A set of close ended questions were designed by the researcher in a form of full fledge questionnaire to be filled by respondents. The data which then obtained, gathered, handled and analyzed by the research was of numeric nature and consisted of numbers.

### **5.2 Universe**

Universe is a broader population from which sample of a research can be drawn. Universe of this study was the population of Islamabad. The purpose of selecting Islamabad city for this research was its diverse nature. Basically, Islamabad is capital of Pakistan and a planned city where people from different backgrounds come and interact so, this could be a positive point to get varied views on the topic. According to recent census in Pakistan, Islamabad is one of the top cities of the country with highest rate of literacy i.e., 88%. Though Environmental concerns are not related to only literate people but faced equally by all still it was convenient to gather data from literate people. Moreover, the researcher is residing in Islamabad currently so, it was



convenient for her to collect data from this city. The total population of Islamabad according to the survey of 2017 is 1.015 million.

### **5.3 Target Population**

The target population for this study was the residents of Islamabad who were currently residing in the city. The target population consisted on following inclusion criteria: Both genders either male or female residents of Islamabad city, aged between 15 to above 60 and literate to at least primary level. The researcher directed to examine that what are the similarities or differences in the opinion of males and females when compared to each other regarding environmental issues and the role of education in the high or low concerns of both genders. Last but not least, the significant differences or similarities among different age groups.

### **5.4 Sampling Strategy**

The sampling technique for drawing the sample for this study was multistage cluster sampling. The researcher divided the whole population of Islamabad in sectors than make the clusters of equal ratios on the basis of gender. Sample was drawn from every sector using proportionate sampling technique in equal proportion using the formula Taro Yamane formula i.e.,  $n = \frac{N}{1 + N(e)^2}$

Here, n= Sample size, N= Total Population, e= Confidence Interval which was 95% in this research.

### **5.5 Sampling Size**

Using the Taro Yamane formula i.e.,  $n = \frac{N}{1 + N(e)^2}$

Here, n= Sample size, N= Total Population, e= Confidence Interval which will be 95% in this research.

$N = 1433000$  (Total population of Islamabad),  $e = 95\%$  (0.05)

$n = \frac{1433000}{1 + 1433000(0.05)^2}$

= 670

So, sample size drawn for this study was 670 respondents using 95% of confidence interval.

### **5.6 Tool for Data Collection**

The tool for data collection was consisted of a questionnaire with close ended questions related to the topic. The researcher conducted pre-test or pilot study by giving questionnaires to a small portion of sample in order to lessen the flaws, feasibility and for more accuracy of results. After pre-testing of tool, the questionnaires were handed over to the respondents and the respondents filled the questionnaire by themselves while they were guided by the researcher where they were unable to understand something written on questionnaire.

### **5.7 Techniques for Collection of Data**

A survey was designed by researcher that was carried out under the supervision of the researcher. It was very beneficial to collect data from more people in short time. The researcher went into the field and asked the respondents one-by-one to fill the questionnaire. While also helped them in understanding the questions. After face-to-face interaction with respondents and data collected the researcher took back the questionnaires.

### **5.8 Pre-testing**

The process of pre-testing involves checking if the questionnaire made by researcher will be useful and valid for the collection of data. For this purpose, the researcher checked the responses of the respondents on small scale and gave the 20 questionnaires to the people to check the flaws. After getting response from a small segment of people and amending the questionnaire with certain points to add or subtract, the researcher finally became able to record the responses of whole sample.

### **5.9 Tool for Data Analysis**

The tool for analysis of data was software named as Statistical Package for Social Sciences (SPSS). The researcher collected the data, entered in the software named SPSS by giving codes to the responses of respondents. Furthermore, SPSS is a tool for analyzing the collected data for social sciences; it helped the researcher to analyze the results, first in the form of frequencies which further helped in interpreting the percentages of responses. Moreover, SPSS helped the researcher to analyze the objectives of the study one-by-one by running the suitable test.

### **5.10 Techniques for Data Analysis**

The data collected by the researcher was in numeric form so, statistical analysis was appropriate to find the results. The researcher firstly done the univariate analysis that was comprised of finding the frequencies of each question asked in questionnaire. The next step was to interpret the results of obtained frequencies which mostly give considerations to the resemblance and disparities.

Technique for analysis of data was cross tabulation as researcher did comparative study so the responses were cross tabulated. While Independent sample t test was done gender wise comparison of means. Additionally, the researcher also applied Pearson's correlation to check the relation of age with the practices and knowledge about environmental issues.

### **5.11 Limitations of the study and opportunities**

The researcher found many limitations as well as further opportunities for research. It was a great experience to meet new people and interact with them along with researcher find opportunity to observe them as well. The researcher became aware of the point of similarities and dissimilarities of people regarding environmental concerns. Moreover, the researcher finds more directions to do research further like how people are facing difficulties upon ban of plastic bags and solution for that misery as well as banning the plastic bags is enough to control plastic litter.

Moving forward, there were some limitations in the study felt by the researcher. Firstly, the research was conducted only on the residents of Islamabad which will be solely the representative of Islamabad and cannot be generalized on broader level. Limitation of collection of data from aged persons as some of them started questioning about the purpose of research and they were unwilling to answer. For this difficulty, researcher ensured them that the purpose of data is none other than research and their responses will be stayed anonymous. By using rapport building technique, the researcher became able to collect data.

### **5.12 Reliability and Validity**

Both reliability and validity of a research collectively represents the quality of that research. Reliability means consistency while validity refers to accuracy of a measure. In this research, the tool was designed while keeping in mind to cover all aspects and all the possible questions in order to make the tool consistent and replication of results. As it is a social research, the tool was reliable to collect full fledge information about topic but results may vary contextually as well as longitudinal research may influence the perception of same people over time. But the tool was

reliable for cross-sectional research as it contained the repetition of some responses with the previous researches. While pre-testing was also done by the researcher to avoid flawed questionnaire and to ensure the accuracy of measure. Moreover, the replication of results substantiates the results from previous researches as well which shows the reliability of tool and collected data. Furthermore, the tool and data seem to be valid as the questions was contextualized by the local culture in order to respect the culture of respondents or their local culture.

### **5.13 Ethical Considerations**

The researcher before handing over the questionnaire to the respondents defined the purpose of research and made sure to take consent from the respondents. The researcher promised to kept the collected data confidential and for research purpose only. The researcher will not disclose the identity of any respondent belong to any caste or creed. The data collected by the researcher was totally based on the choice of respondents and they were given free hand to leave the questionnaire at any time. The researcher respected the opinion of respondents which may varied from the opinion of researcher but they were guided to the limit that if they found any difficulty filling the questionnaire than they were given the guideline. The researcher collected the data in natural setting with honesty without changing the situations and responses. Whole questionnaire was designed on the basis of context of area to avoid any kind of conflict between the respondents and the researcher.

**CHAPTER No.6**  
**RESULTS**

### 6.1 Descriptive Analysis:

This portion of the study shows the univariate analysis. Each variable is analyzed by the frequency and percentage of the responses.

**Table No.6.1.1 Gender Distribution**

Category	Frequency	Percentage
Male	381	56.9
Female	289	43.1
Total	670	100

Table No.6.1.1 In the above-mentioned table respondents are presented by their gender identity for this research. The table of collected data shows that 56% respondents were male and 43% were females.

**Table No.6.1.2 Age of the Respondents**

Category	Frequency	Percentage
15-20	131	19.6
21-25	348	51.9
26-30	105	15.7
31-35	39	5.8
36 and above	46	6.9
99	1	.1
Total	670	100

Table No.6.1.2 indicates the age stratification of the respondents. The researcher made the categories of age from minimum 15 years of age to the person ageing above 36. The descriptive analysis shows that 131 respondents age from 15 to 20 years of age. Half of the respondents i.e.,348 of the total respondent's age lies in the strata of 21 to 25 years of age. Among total respondents 105 were with the age bracket range from 26 to 30 years of age. Some respondents i.e., 39 lies in the age category of 31 to 35 years of age. While 46 respondents of this research were in the age bracket of 36 and above.

**Table No.6.1.3 Education of the Respondents**

<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Illiterate	12	1.8
Undergraduate	304	45.4
Masters	263	39.3
M/Phil	69	10.3
Ph.D.	22	3.3
Total	670	100

Table No.6.1.3 shows that majority i.e., 98% of the respondents were literate. While very few were illiterate among which most of the respondents fall in the category of undergraduate with the percentage of 45 while 3% population fall in the category of Ph.D. While 10.3% of the respondents hold the degree of M/Phil.

**Table No.6.1.4 Marital Status**

<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Single	531	79.3
Married	138	20.6
99	1	.1
Total	670	100

Table No.6.1.4 shows that majority of the respondents i.e.,79.3% were not married while 20.6% of the respondents were married. The table also indicate a category named 99 which indicated the missing response whose frequency is .1%. It means only one person either male or female didn't answer this question.

**Table No.6.1.5 Monthly Pocket money/income**

<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Up to 5000	129	19.3
5001-15000	231	34.5
15001-25000	123	18.4
25001-35000	41	6.1
35001 and above	143	21.3
99	3	.4
Total	670	100

Table No.6.1.5 indicates the response category of monthly pocket money or income of respondents. According to this research, 19.3% people has the monthly earning or pocket money up to 5000 Pakistani rupees. 34.5% of the people has the earning or pocket money up to 15000. 18.4% of the respondents of this study has the earning or pocket money of third category which is up to 25000. While a small portion of the respondent's category falls in the bracket of up to 35000 monthly income or pocket money. 21.3% of the respondents has the earning or monthly pocket money of 35001 and above. There are also three respondents who didn't tell about their monthly income.

**Table No.6.1.6 Family Structure**

<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Nuclear	515	76.9
Joint	64	9.6
Extended	91	13.6
Total	670	100

Table No.6.1.6 shows the family structure of the respondents. Data of the research shows that majority of the respondents i.e.,76.9% are living in nuclear form of family while 9.6% respondents are living in joint families and 13.6% are living their life in extended families.



**Table No.6.1.7 Respondent’s knowledge about solid wastes production in Islamabad**

<b>Most of the solid wastes in Islamabad are produced by:</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Industrial Activities	206	30.7
Residential Activities	222	33.1
Commercial Activities	171	25.5
Agricultural Activities	18	2.7
I don’t know	53	7.9
Total	670	100

Table No.6.1.7 shows the respondents knowledge about the solid waste production in Islamabad. The table shows that out of 670 respondents 33.1% of respondents have knowledge that activities performed at residential areas are the major source of producing solid waste in Islamabad. 30.7% of the respondents have knowledge that most of the solid wastes produced in Islamabad city is produced by industrial activities. Third majority of the respondents have knowledge that commercial activities are responsible for most of the solid waste while a significant population do not know the source of solid waste in their city. While according to the knowledge of 2.7% of the respondents, agricultural activities are adding in solid waste of Islamabad city.

**Table No.6.1.8 Respondent's Knowledge about World-wide source of energy**

<b>Which of the following is most likely to be an important world-wide source of energy for the future?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Solar Radiation	436	65.1
Tidal Flow	72	10.7
Geothermal Sources	49	7.3
Wind Power	65	9.7
I don't know	47	7.0
99	1	.1
Total	670	100

Table No.6.1.8 indicates that according to the knowledge of 65.1% respondents, solar radiations are most likely to be an important world-wide source of energy for the future. 10.7% of the respondents have the knowledge that tidal flow will be the important source of energy for future. While 9.7% of the respondents have the knowledge that wind power will be the vital source of energy for future. 7.3% of the respondents have the knowledge that geothermal sources are important to cater future needs of energy while 7% of respondents don't know which type of energy is important for world-wide source for future. The category of 99 shows the missing values of the response. It is concluded that 7% of the population do not have any knowledge about the world-wide source of energy for future.

**Table No.6.1.9 Respondent’s knowledge about Electric energy production in Islamabad/Pakistan**

<b>Most of the electrical energy used in Islamabad/ Pakistan is produced by:</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Nuclear Power Plants	139	20.7
Coal-burning Power Plants	107	16.0
Oil-Burning Power Plants	86	12.8
Natural Gas power plants	121	18.1
I don’t know	215	32.1
99	2	.3
Total	670	100

Table No.6.1.9 indicates the knowledge of the respondents about the source of electrical energy used in Islamabad. The research shows the insight of respondent’s knowledge according to which 32% of people do not know the source of electrical energy while 20.7% people have the knowledge that nuclear power plants are used to produce electrical energy in Islamabad while 18.1% people have the knowledge of electric production through natural gas power plants. 16% people have the knowledge that electrical energy produce in the city with the help of coal-burning power plants while 12.8% people have the knowledge that oil-burning power plants produce electrical energy in the Capital. It is concluded that a significant portion of population do not have any knowledge about the production source of electricity in their city.

**Table No.6.1.10 Respondent’s Knowledge about the energy that contributes less in Environmental Problems**

<b>Which of the following sources of energy contributes the least to environmental problems?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Solar	316	47.2
Coal	132	19.7
Petroleum	87	13.0
Nuclear	57	8.5
I don’t know	78	11.6
Total	670	100

Table No. 6.1.10 is about the knowledge of respondents about the sources of energy that contributes least to the environmental problems. The research shows that 47.2% of the respondents have the knowledge that solar energy is the only source among the given options that contribute less or is harmless to the environment. Secondly, some respondents i.e.,19.7% have the knowledge that coal can be the source of energy which is less harmful for environment. 13% respondents have the knowledge that petroleum is less harmful source of energy for environment while 8.5% people have the knowledge that nuclear energy could be less harmful for environment. A significant population of the city do not have any idea about the sources of energy that contributes least to environment.

**Table No.6.1.11 Respondent's Knowledge about Renewable Resources**

<b>Which of the following is a renewable resource?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Copper	74	11.0
Coal	119	17.8
Oil	42	6.3
Water	294	43.9
I don't know	141	21.0
Total	670	100

Table No.6.1.11 is about the knowledge of respondents regarding renewable resource. 43.9% of the respondents have the knowledge that water is a renewable resource. While there is a significant number of respondents i.e., 21% who do not have any knowledge about the renewable resource. 17.8% respondents have the knowledge that coal is a renewable resource while 11% have the knowledge that coal can be the renewable natural resource. 6.3% respondents have the knowledge that oil is a renewable resource which can be utilize again after first use.

**Table No.6.1.12 Respondent's Knowledge about causes of Air Pollution**

<b>The major sources of air pollution in big cities are:</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Homes and Industries	43	6.4
Agriculture and Industries	64	9.6
Motor vehicles and Industries	465	69.4
Motor vehicles and Home	63	9.4
I don't know	35	5.2
Total	670	100

Table No.6.1.12 is about the knowledge of respondents regarding major sources of air pollution in big cities. Majority of respondents from this research i.e., 69.4% have the knowledge that motor vehicles and industries are responsible for air pollution in big cities like Islamabad. 9.6% respondents have the knowledge that agricultural and industrial wastes are contributing in air pollution while 9.4% respondents have the knowledge that motor vehicles and homes are responsible for air pollution. A significant portion of population sample do not have anyknowledge of the factors that are contributing in air pollution.

**Table No.6.1.13 True Statement about Air Pollution according to the Knowledge of Respondents**

<b>Which of the following statements is true about air pollution?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Air pollution is caused by man-made processes only	216	32.2
Only some pollutants are harmful to health	79	11.8
Air pollution is confined to certain political boundaries	88	13.1
pollution may give rise to irreversible changes in the environment	234	34.9
I don't know	53	7.9
Total	670	100

Table No.6.1.13 shows the knowledge of respondents by indicating some statements which is true about air pollution. 34.9% respondents have knowledge that pollution may give rise to irreversible changes in environment. 32.2 % respondents have knowledge that only man-made processes are responsible for air-pollution while 13.1% respondents have knowledge that air pollution is confined to certain political boundaries. A portion of respondents i.e., 11.8% have knowledge that only some pollutants are harmful to health while a significant of respondents i.e.,7.9% do not have any knowledge about the true statement regarding air pollution.

**Table No.6.1.14 Respondent's Knowledge about the causes of Noise**

<b>Noise levels have increased through the following except:</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Rapid urbanization	110	16.4
Rapid industrial development	141	21.0
Rapidly ageing population	128	19.1
Rapid increase in vehicle population	218	32.5
I don't know	73	10.9
Total	670	100

Table No. 6.1.14 indicates the best possible option in respondent's knowledge which has least role in noise pollution. This research shows that among the total respondents 32.5% respondents have the knowledge that rapid increase in vehicle population plays less role in noise levels while 21% of the respondents have the knowledge that rapid industrial development plays least role in noise. Some respondents i.e., 19.1% have the knowledge that rapidly ageing population plays least role in noise among the given category while 10.9% of them do not have any knowledge about the least cause of noise among the given options while 16.4% of the respondents have the knowledge that rapid urbanization does not play significant role in noise pollution. The result shows the higher proportion of respondents who have the knowledge that rapid increase in vehicle population do not play much role in noise and this proportion is higher than those who have knowledge that ageing population is not the cause of noise pollution.



**Table No.6.1.15 Knowledge about Deforestation**

<b>Deforestation is responsible for:</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
The distortion of the rainfall	64	9.6
The destruction of habitat and foods species for the wildlife	135	20.1
The destruction of soil in the mountains due to erosion	74	11.0
All of the above	331	49.4
I don't know	64	9.6
99	2	.3
Total	670	100

Table No.6.1.15 is about the knowledge of respondents regarding the effects of deforestation. 49.4% of the respondents of this research have knowledge that all of the mentioned options are correct regarding deforestation i.e., deforestation is responsible for the distortion of the rainfall, it destructs the habitat and foods species for wildlife and it is also responsible for the destruction of soil in the mountains due to erosion. 20.1% respondents have knowledge that deforestation is responsible for the destruction of habitat and foods species for the wildlife. 11% respondents have knowledge that deforestation causes destruction of soil in the mountains due to erosion. While equal proportions of respondents i.e., 9.6% respondents have knowledge that deforestation is responsible for the distortion of the rainfall and 9.6% respondents do not have any idea of effect of deforestation. A significant population do not have any knowledge about the effects of deforestation.

**Table No.6.1.16 Perception about the Oceans**

<b>The Oceans (an unused area where man should dispose of his waste):</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	275	41.0
Disagree	174	26.0
Neutral	121	18.1
Agree	74	11.0
Strongly Agree	26	3.9
Total	670	100

Table No. 6.1.16 indicates the perception of respondents regarding the statement that oceans represent an unused area where man should dispose of his waste. The results from this research shows that 41% respondents strongly disagree with the statement while 26% disagree with the statement. A significant number of respondents 18.1% remain neutral about the statement. 11% respondents agree on the statement and 3.9% strongly agree on the statement that yes, the oceans represent an unused area where man should dispose of his waste. The result shows that the number of respondents who disagreed with the statement is higher than the agreed ones.

**Table No.6.1.17 The Perception of respondents about conservation of Natural Resources**

<b>The conservation of natural resources is totally the government's responsibility.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	114	17.0
Disagree	209	31.2
Neutral	159	23.7
Agree	142	21.2
Strongly Agree	46	6.9
Total	670	100

Table No.6.1.17 indicates the perception of respondents regarding the statement i.e., conservation of natural resources is totally the government's responsibility. Majority of the people from this research disagree with the statement i.e., 31.2% respondents disagree with the statement while 17% strongly disagree with it. 23.7% respondents remain neutral on the statement. 21.2% respondents agree on the statement while 6.9% strongly agree on the statement. The result shows that almost half of the population perceive the conservation of natural resources as not only the responsibility of government rather they believe it to be their responsibility at communal level and individual level.

**Table No.6.1.18 Perception of respondents about the damage caused by Human Activities**

<b>It is too late for human beings to take actions to heal the damages caused by their activities.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	107	16.0
Disagree	235	35.1
Neutral	155	23.1
Agree	131	19.6
Strongly Agree	41	6.1
99	1	.1
Total	670	100

Table No.6.1.18 shows the insight of respondent's opinion on the statement that it is too late for human beings to take actions to heal the damages caused by their activities. Half of the respondents fall in the category of disagree and strongly disagree with the combined percentage of 51%. Combined percentage of respondents i.e., 25% fall in the category of agree and strongly agree. While a significant number of respondents i.e., 23.1% answer in the category of neutral. The result shows that half of the respondents are not pessimists about the situation of environment rather they believe that it is possible to control the environmental damage caused by human activities.

**Table No.6.1.19 Respondent's opinion about resolving Environmental Problems**

<b>I believe that people can find ways to resolve the environmental problems.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	40	6.0
Disagree	71	10.6
Neutral	112	16.7
Agree	263	39.3
Strongly Agree	184	27.5
Total	670	100

Table No.6.1.19 indicates the perception of respondents regarding the believe that people can find ways to resolve the environmental problems. More than half of the respondents agree to the statement that people can find ways to resolve the environmental problems. A total of 16% collectively disagree with the statement while 16.7% respondents remain neutral regarding statement. There is a need to explore the reason behind the neutrality of 16.7% of the respondents regarding the solutions to the environmental problems.

**Table No.6.1.20 The perception of respondents about technology as a Solution or a Cause of Environmental Issues**

<b>I am sure that new technology can help us prevent damages from environmental risks.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	49	7.3
Disagree	82	12.2
Neutral	157	23.4
Agree	235	35.1
Strongly Agree	147	21.9
Total	670	100

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Table No.6.1.20 depicts the insight of respondent's opinion regarding their confidence on new technology in preventing the damages from environmental alteration by hands of human. Almost half of the respondents are confident about the introduction of new technology as a preventive measure to reduce environmental risks. While 19% of respondents negate the statement that they're not sure if new technology can help in preventing damages from environmental risks. A total of 23.4% respondents remain neutral on the statement that they're not sure if new technology can help or not in preventing damages form environmental risks.

**Table No.6.1.21 Opinion of respondents about Environment as a Self-balancing Entity**

<b>I believe environmental problems are exaggerated; nature will provide balance, in a way.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	111	16.6
Disagree	181	27.0
Neutral	184	27.5
Agree	161	24.0
Strongly Agree	32	4.8
99	1	.1
Total	670	100

Table No.6.1.21 presents the perception of respondents regarding their belief that environmental problems are exaggerated and nature will provide balance automatically if changes done in it through any means. Almost half of the respondents disagree with the statement which means that they believe that environmental problems are not exaggerated and nature will not provide a balance by itself rather human beings have to adapt themselves without altering their environment. While 28% respondents agree on the statement that environmental problems are exaggerated and nature will provide a balance by itself. There is a need to explore the factors behind the neutrality of 27.5% of the respondents on the statement.

**Table No.6.1.22 Respondent's perception about the importance of ease or the Environment**

<b>The benefit of the technological products used is more important than the harm they cause to the environment.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	66	9.9
Disagree	175	26.1
Neutral	209	31.2
Agree	187	27.9
Strongly Agree	33	4.9
Total	670	100

Table No.6.1.22 shows the response of respondents on the benefit of the technological products used is more important than the harm they cause to the environment. No doubt technology made our life much easier but in return it is damaging our mental, physical and social health so, it is not worthy to focus on just ease in exchange of much more drastic results. The result of this research shows that almost 36% of the respondents disagree on the statement that benefit of technological products used is not more important than the harm they cause to the environment. 32% respondents agree on the statement while a significant number of respondents i.e.,31.2% remain neutral on the statement. It can be concluded that there are people of almost equal numbers who support the use of modern technology irrespective of the harm it causes and who disagree with the usage of modern technology that harm the naturally occurring environment.



**Table No.6.1.23 Perception of respondents about modifying the Environment**

<b>High-quality satisfactory worth modifying environment:</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	42	6.3
Disagree	134	20.0
Neutral	229	34.2
Agree	208	31.0
Strongly Agree	53	7.9
99	4	.6
Total	670	100

Table No. 6.1.23 shows the perception of respondents on the statement that high-quality satisfactory worth modifying environment. While the result of this research shows that almost 38% respondents agree on the statement. 26% respondents disagree with the statement while 34.2% respondents stay neutral. Result shows the greater number of people agreed to high quality satisfactory in return of modifying environment than those who are not agreed to modify the environment.

**Table No.6.1.24 Respondent’s opinion on Giving up of personal comfort to protect Environment**

<b>I can give up my comfort and consume less, if it will help to protect the environment.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	51	7.6
Disagree	93	13.9
Neutral	136	20.3
Agree	287	42.8
Strongly Agree	101	15.1
99	2	.3
Total	670	100

Table No.6.1.24 depicts the insight of respondent’s opinion on the statement that I can give up my comfort and consume less, if it will help to protect the environment. More than half percent of the respondents agree to the statement that they can give up their comfort and consume less if it will help to protect the environment. Whereas there are 20% respondents who are not willing to give up their comfort for betterment of environment while 20.3% of respondent’s response is neutral. Significantly, the greater number of respondents agreed to give up their comfort and consume less to help protecting environment.

**Table No.6.1.25 Perception of respondents on the usage of Cars**

<b>Considering the problems of pollution and crowding, we need to decrease the use of cars.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	51	7.6
Disagree	110	16.4
Neutral	126	18.8
Agree	256	38.2
Strongly Agree	126	18.8
99	1	.1
Total	670	100

Table No.6.1.25 shows the perception of respondents regarding the statement that keeping in view the pollution and situation of crowding, we need to decrease the use of cars. More than half of the respondents agree to the statement that to decrease the pollution and crowding, we should decrease the use of cars. 23% respondents disagree while 18.8% remain neutral on the statement. It is concluded from the results that respondents perceive other factors than usage of cars behind the problem of pollution and crowding.

**Table No.6.1.26 Opinion of the respondents on the interference of Human Beings with Nature**

<b>When humans interfere with nature it often produces disastrous consequences.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	39	5.8
Disagree	77	11.5
Neutral	153	22.8
Agree	282	42.1
Strongly Agree	119	17.8
Total	670	100

Table No.6.1.26 shows the insight of respondent's opinion on the statement that when humans interfere with nature it often produces disastrous consequences. Almost 60% of the respondents believe that when humans interfere with nature it often produces disastrous consequences. 16-17% respondents think that when human interfere with nature it does not produce disastrous consequences. While 22.8% of respondents remain neutral on the statement. A significant population of the respondents remain neutral about the statement which means that they may consider other factors rather than interference of human beings with nature.

**Table No.6.1.27 Perception of respondents about Plants and Animals**

<b>Plants and animals exist primarily to be used by humans.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	47	7.0
Disagree	163	24.3
Neutral	183	27.3
Agree	215	32.1
Strongly Agree	62	9.3
Total	670	100

Table No.6.1.27 shows the perception of the respondents regarding the statement that plants and animals exist primarily to be used by humans. 41% of the respondents think that plants and animals exist primarily to be used by humans. 31% of the respondents disagree with the statement while 27.3% respondents remain neutral. The greater number of respondents perceive animals and plants to be exist for human which means that probably they are unaware of the balance of eco-system maintained by plants and animals rather just being consumed by humans.

**Table No.6.1.28 Perception of respondents on Human Harmony with Nature**

<b>Humans must live in harmony with nature in order to survive.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	34	5.1
Disagree	48	7.2
Neutral	123	18.4
Agree	286	42.7
Strongly Agree	176	26.3
99	3	.4
Total	670	100

Table No.6.1.28 shows the insight of the respondent's opinion on the statement that humans must live in harmony with nature in order to survive. More than half i.e., 66% respondents believe that humans must live in harmony with nature in order to survive. 12% of respondents disagree while 18.4% remain neutral regarding the statement. The result shows that people perceive the living of humans in harmony with nature as important way of survival.

**Table No.6.1.29 Respondent's perception on the Right of Human to modify Nature**

<b>Humans have the right to modify the natural environment to suit their needs.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	66	9.9
Disagree	146	21.8
Neutral	177	26.4
Agree	203	30.3
Strongly Agree	77	11.5
99	1	.1
Total	670	100

Table No.6.1.29 shows the perception of the respondents regarding the statement that humans have the right to modify the natural environment to suit their needs. Most of the respondents agree to the statement that humans have the right to modify the natural environment to suit their needs. 31% respondents disagree while 26.4% of the respondents remain neutral regarding the statement. It is concluded that many respondents perceive it as their right to modify the naturally occurring environment no matter if it is harming the natural habitat and directly or indirectly harmful for living organisms including humans.

**Table No.6.1.30 Respondent’s opinion on the Humans being responsible or not for the depletion of the Ozone layer**

<b>We are all responsible in one way or another for the depletion of the ozone layer.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	44	6.6
Disagree	68	10.1
Neutral	102	15.2
Agree	259	38.7
Strongly Agree	197	29.4
Total	670	100

Table No.6.1.30 shows the insight of the respondent’s opinion on the statement that we are all responsible in one way or another for the depletion of the ozone layer. Majority of the respondents i.e.,67% agree with the statement that we are all responsible in one way or another for the depletion of the ozone layer. 16% of the respondents disagree with the statement while 15.2% respondents selected the category of neutral. It is concluded that respondents have the knowledge of factors effecting the ozone layer.



**Table No.6.1.31 The Respondent's perception on the possibility of better environment for next Generation**

<b>I think the next generation will have a better environment than we have right now.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	124	18.5
Disagree	168	25.1
Neutral	155	23.1
Agree	162	24.2
Strongly Agree	61	9.1
Total	670	100

Table No.6.1.31 depicts the response of the respondents on the statement that I think the next generation will have a better environment than we have right now. Almost half of the respondents i.e.,43% disagree with the statement that they do not think the next generation will have better environment than they have right now. 33% respondents optimistically believe that they think the next generation will have a better environment than they have right now. While 23.1% of the respondents remain neutral on the statement. It is concluded that significant proportion of respondent's perception regarding the better future do not believe in the better future rather they perceive from the current situation of environment that next generation may face worse environment then present.

**Table No.6.1.32 Perception of respondents on Atmosphere (Constant or Variable)**

<b>Do you feel any change in environment?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
No	126	18.8
Yes	543	81.0
99	1	.1
Total	670	100

Table No.6.1.32 shows the opinion of the respondents regarding their perception of change in environment. 81% of the respondents believe that they felt change in environment while 18.8% of the respondents felt no change in environment. It is concluded that majority of the respondents felt change in their environment either better or worse.

**Table No.6.1.32(a) Respondent's perception on Climate change (Better or Worse)**

<b>If "yes" "what kind of change do you observe in environment?"</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Worse	487	72.7
Better	181	27.0
99	2	.3
Total	670	100

Table No.6.1.32(a) is the sub-part of the question asked in the previous table. In this table respondents were asked to tell what kind of change they observe in environment. 72.7% of the

respondents believe that the change they're feeling in environment is worse while 27% of the respondents believe that the change, they felt in environment is better. It is concluded that 27% of the respondents saw positive changes around them while majority of them noticed negative change on environment.

**Table No.6.1.33 Perception of the respondents on the Contextual Environmental Issues**

<b>What is the most important environmental issue you are facing?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Water Pollution	145	21.6
Poor Air Quality	144	21.5
Global Warming	334	49.9
None	12	1.8
Other	32	4.8
99	3	.4
<b>Total</b>	<b>670</b>	<b>100</b>

Table No.6.1.33 shows the perception of the respondents on area specific environmental issues faced by them. 49.9% people choose the category of global warming as they believe that they are affected by it. 21.6% of the respondents are facing water pollution while 21.5% are affected by the poor air quality. 4.8% respondents selected the category other which means that they're suffering from other types of pollution not given in the response category while 4.8% of the respondents choose the category of none which means that they're not facing any kind of environmental issue. 4.8% of the respondents who choose the category of other need to be explore more deeply that what other kind of environmental problems people are facing.

**Table No.6.1.34 Practices of respondents to reuse glass bottles**

<b>How often do you re use items such as glass bottles?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	149	22.2
Seldom	186	27.8
Often	238	35.5
Always	97	14.5
Total	670	100

Table No.6.1.34 shows the response of respondents regarding their behavioral practices. The question was given to them was how often do you reuse items such as glass bottles? In response of which, 35.5% respondents choose the category of often, 27.8% choose the option of seldom, 22.2% respondents never used the glass bottle again while 14.5% of the respondents always reuse glass bottle.

**Table No.6.1.35 Practices of respondents to use products with Green Labels**

<b>How often do you choose products with green labels?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	104	15.5
Seldom	234	34.9
Often	262	39.1
Always	69	10.3
99	1	.1
Total	670	100

Table No.6.1.35 shows the result of behavioral practices done by the respondents in order to protect environment. The statement was how often do you choose products with green labels. 39.1% of the respondents seldom choose products with green labels, 34.9% seldom, 15.5% never and 10.3% always choose the products with green labels. There is a significant number of respondents who never buy products with green labels. The reason may be the lack of knowledge regarding such kind of available products.

**Table No.6.1.36 Practices of respondents to reuse the Papers**

<b>How often do you keep papers which are printed on one side in order to write on the other side?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	94	14.0
Seldom	176	26.3
Often	256	38.2
Always	144	21.5
Total	670	100

Table No.6.1.36 shows the percentage of the respondents about how often do they keep papers which are printed on one side in order to write on the other side. 38.2% often, 26.3% seldom, 21.5% always while 14% respondents never use the same paper to write on other side of it.

**Table No.6.1.37 Practices of respondents to turn off the extra Lights**

<b>How often do you turn off the lights in rooms which are not being used?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	60	9.0
Seldom	133	19.9
Often	216	32.2
Always	260	38.8
99	1	.1
Total	670	100

Table No.6.1.37 shows the practical behavior of respondents regarding turning off the extra lights in rooms which are not being used. 38.8% always, 32.2% often, 19.9% seldom while 9% of the respondents never turn off the lights in rooms which are not being used. There is a need to explore the factors behind the proportion of the respondents who never turn off the lights which are not being used.

**Table No.6.1.38 Usage of Private Cars by respondents**

<b>How often are you being driven around in a private car?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	89	13.3
Seldom	169	25.2
Often	287	42.8
Always	125	18.7
Total	670	100

Table No.6.1.38 shows the response of the respondents on the question that how often they are being driven around in a private car. 42.8% often, 25.2% seldom, 18.7% always while 13.3% of the respondents never being driven around in a private car. It is concluded that 18.7% of the respondents have facility of private car.

**Table No.6.1.39 Practices of respondents towards Wastage/Saving of Water**

<b>How often do you keep tap open while showering?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	150	22.4
Seldom	209	31.2
Often	206	30.7
Always	105	15.7
Total	670	100

Table No.6.1.39 depicts the practicing behavior of the respondents in order to save water. The statement is how often do you keep tap open while showering? 31.2% seldom, 30.7% often,



22.4% never while 15.7% always keep the tap open while showering. There is a significant proportion of respondents who always keep tap open while showering which means they're not aware about the alarming situation of ground water.

**Table No.6.1.40 Usage of Air-conditioner**

<b>How often do you use the air-conditioner while you sleep?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	124	18.5
Seldom	184	27.5
Often	240	35.8
Always	121	18.1
99	1	.1
Total	670	100

Table No.6.1.40 shows the response of respondents on the statement of how often do you use the air-conditioner while you sleep? 35.8% often, 27.5% seldom, 18.5% never while 18.1% of the respondents always use the air-conditioner while sleeping. Most of the respondents used air conditioner while sleeping which is the main cause of ozone depletion.

**Table No.6.1.41 Practices of respondents to Attend the Exhibition concerning Environment**

<b>How often do you go to an exhibition concerning the environment when held?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	195	29.1
Seldom	201	30.0
Often	202	30.1
Always	72	10.7
Total	670	100

Table No. 6.1.41 shows the response of the respondents on attending the exhibition concerning the environment. 30.1% often, 30% seldom, 29.1% never while 10.7% of the respondents always attend the exhibition concerning the environment.

**Table No.6.1.42 Practices of the respondents to buy recyclable products**

<b>When buying a product, I pay attention to whether the package can be recycled.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	218	32.5
Seldom	197	29.4
Often	169	25.2
Always	86	12.8
Total	670	100

Table No.6.1.42 is showing the result of the practicing behavior of respondents on paying attention while buying a product whether the package can be recycled. 32.5% never pay attention

to the packaging whether it can be recycled while buying a product. 29.4% seldom, 25.2% often while 12.8% of the respondents always pay attention to the recyclable packaging.

**Table No.6.1.43 Watching/Listening of programs concerning Environmental issues**

<b>I watch and listen to programs about the environment on TV and the radio.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	137	20.4
Seldom	210	31.3
Often	215	32.1
Always	108	16.1
Total	670	100

Table No.6.1.43 shows the behavioral patterns of respondents related to watching and listening to the programs about the environment on television and the radio. 32.1% of the respondents often watch and listen to the programs concerning about environment. 31.3% seldom, 20.4% never while 16.1% of the respondents always watch and listen to programs about the environment on television and radio.

**Table No.6.1.44 Practices of respondents for Livable Environment**

<b>I can work without pay for a livable environment.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	140	20.9
Seldom	197	29.4
Often	212	31.6
Always	120	17.9
99	1	.1
Total	670	100

Table No.6.1.44 shows the results of the respondent's opinion regarding the statement that I can work without pay for a livable environment. 31.6% respondents claim that they can work often without pay for a livable environment. 29.4% seldom, 20.9% never while 17.9% of the respondents can always work without pay for a livable environment.

**Table No.6.1.45 Littering Behavior of the respondents**

<b>How often you throw plastic/waste out of bins?</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	168	25.1
Seldom	192	28.7
Often	193	28.8
Always	114	17.0
99	3	.4
Total	670	100

Table No.6.1.45 shows the practices of the respondents about throwing plastic/ any kind of waste out of bins. 28.8% of the respondents often throw the plastic/waste out of bins, 28.7% seldom, 25.1% never while 17% of the respondents always throw plastic/waste out of bins.

**Table No.6.1.46 Practice of respondents to alarm others on harming the nature**

<b>I intimidate somebody who is harming nature.</b>		
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Never	102	15.2
Seldom	176	26.3
Often	254	37.9
Always	137	20.4
99	1	.1
Total	670	100

Table No.6.1.46 is depicting the response about the behavior of respondents regarding intimidating other who is harming nature. 37.9% of the respondents intimidate to other often if they watch anybody harming nature. 26.3% seldom, 20.4% always while 15.2% of the respondents never intimidate others on harming the nature.

## 6.2 Inferential Analysis:

This section of the research shows the bivariate analysis where the hypothesis of the study was analyzed with the help of statistical package for social sciences (SPSS).

**Table No.6.2.1 Independent sample t test for Gender and Perception regarding Environmental Issues**

### H<sub>0</sub>:

There is no significant difference in the perception of males and females regarding environmental issues.

### H<sub>1</sub>:

There is a significant difference in the perception of males and females regarding environmental issues.

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence interval of the difference	
								Lower	Upper
Perception (Equal Variances assumed)	.090	.765	.148	668	.882	.01820	.12266	.22265	.25905
(Equal variances not assumed)			.142	493.999	.887	.01820	.12842	.23413	.27052

To check the difference in the perception of males and females regarding environmental issues, independent sample t test was applied to compare the means of two groups. The results show that there is no significant difference in the perception of males and females regarding environmental issues as the sig (p) value is greater than 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

**Table No.6.2.2 Correlation test for Age and Attitude towards Environmental Issues**

**H<sub>0</sub>:**

Increase in age results in decreased suitable attitude towards environmental issues.

**H<sub>1</sub>:**

Increase in age results in increased suitable attitude towards environmental issues.

		Age	Attitude
Age	Pearson Correlation	1	-.056
	Sig. (2-tailed)		.147
	N	670	670
Attitude	Pearson Correlation	-.056	1
	Sig. (2-tailed)	.147	
	N	670	670

To check the relationship between two variables i.e., age and attitude towards environmental problems correlation was applied. It shows the nature of relationship exist between two variables. The result indicates the significant negative relationship between the age and attitude regarding environmental issues. The possible reason behind the decreased suitable attitude can be as age increases the healthy attitude of people towards environmental problems decreases. Elder people become less careful about the practices to save environment like turning off the lights, reuse of glass bottles, buying products with green labels and so on as compared to young ones. Hence, from the results alternative hypothesis is rejected and null hypothesis accepted.



**Table No.6.2.3 Correlation test for Age and Knowledge about Environmental Issues**

**H<sub>0</sub>:**

Increase in age results in decreased knowledge about environmental issues.

**H<sub>1</sub>:**

Increase in age results in increased knowledge about environmental issues.

		Age	Knowledge
Age	Pearson Correlation	1	-.058
	Sig. (2-tailed)		.133
	N	670	670
Knowledge	Pearson Correlation	-.058	1
	Sig. (2-tailed)	.133	
	N	670	670

To check the relationship between two variables i.e., age and knowledge about environmental problems correlation was applied. It shows the nature of relationship exist between two variables. The result indicates the significant negative relationship between the age and knowledge regarding environmental issues. The interpretation of the result is as age increases the knowledge of people towards environmental problems decreases. Possibly, the justification would be as the literacy rate among elder people is less than the youngsters. The educational system is modified now for the children, giving them a more sense and responsibility of environmental problems as compared to the elder people who may are not aware about the environmental hazards to that levels. Hence, from the results null hypothesis is accepted while alternative hypothesis is rejected.

**Table No.6.2.4 Cross tabulation for the perception about Environmental problems and Education**

**H<sub>0</sub>:**

Education do not play vital role in building the perception about environmental issues.

**H<sub>1</sub>:**

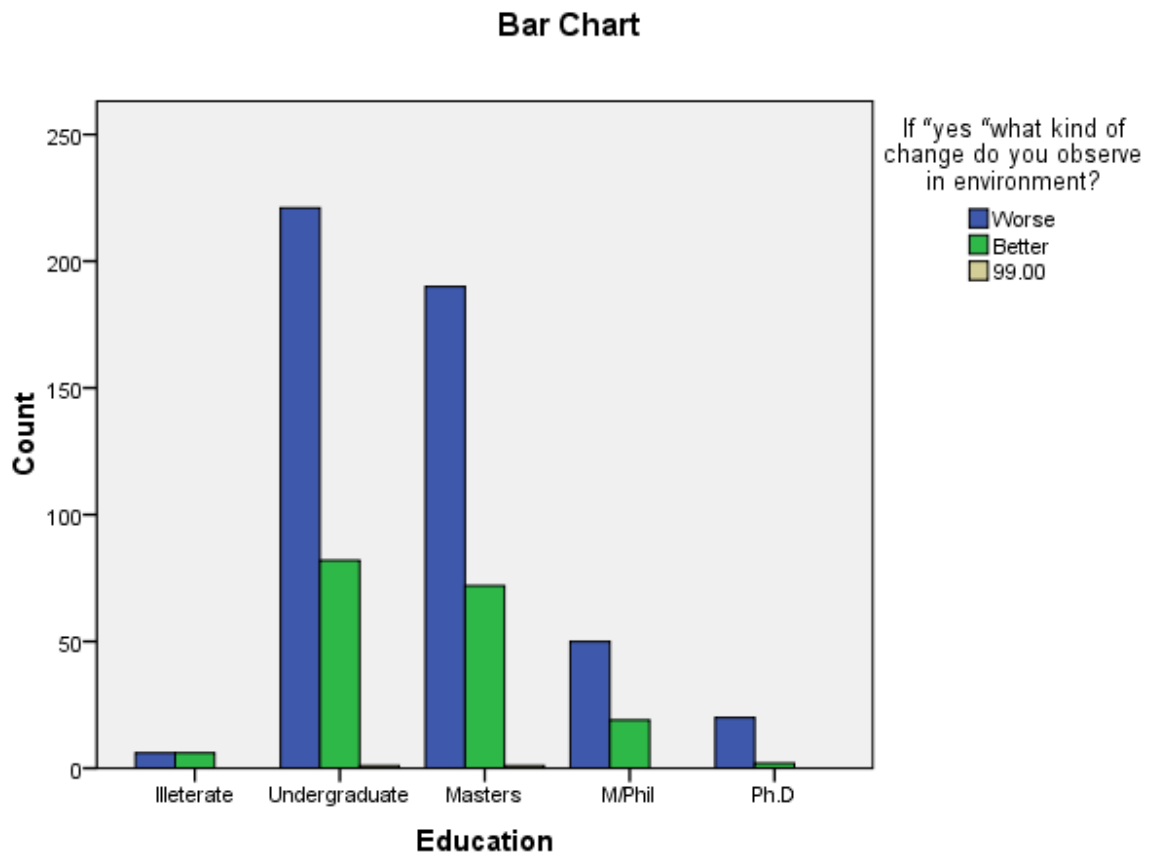
Education plays vital role in building the perception about environmental issues.

	What kind of change do you observe in environment? (Perception)			Total	
	Worse	Better	99		
Education					
	Illiterate	6	6	0	12
	Undergraduate	221	82	1	304
	Masters	190	72	1	263
	M.Phil.	50	19	0	69
	Ph.D.	20	2	0	22
Total		487	181	2	670

Table No. 6.50 shows the cross comparison of perception (i.e., what kind of change do you observe in environment?) with education of the respondents. The results show that half of the illiterate people think that they observe positive change in environment and half think that the change in environment is worse. While 72.7% undergraduates think that the change in environment is worse and 27% have perception of positive change in environment. The 72.2% respondents with master level education perceive worse change in environment while 27.4% master degree holders perceive the positive change in environment. 72.5% of the respondents with M.Phil. level of education think that the change in environment is worse while 27.5% perceive the positive change in overall environment. A greater number of respondents with Ph.D. level of education perceive worse change in environment and only 9.1% perceive the positive environmental change. Hence, total of 487 respondents out of 670 perceive environmental change as worse while 27% of the respondents perceive the better environmental change. The

result shows that 50% of illiterate people observe the change in environment as worse and also the amount of illiterate people who observe this change as better are also the same while this ratio of difference in more educated people is less but still many educated respondents observe this change as better. So, it seems education do not play vital role in changing the perception of people regarding environmental problems. Here, null hypothesis is accepted while alternative one is rejected.

**6.2.4 Bar chart representing the results for cross tabulation of education with the perception of respondents towards environmental issues**



**Fig 6.2.4**

**CHAPTER No.7**  
**SUMMARY, DISCUSSION AND RECOMMENDATIONS**

## **7.1 Summary**

The study aims at comparing the perception regarding Environmental Issues across genders. The principal objectives of the research were to investigate the perception of males and females regarding environmental issues. Moreover, to find out the similarities and differences in perceptions across different age groups towards environmental issues. Furthermore, to investigate the role of education in perception building towards environmental issues across different genders. The research questions were about investigating the perception of males and females towards environmental issues along with scrutinizing the difference of age group creating divergence in males and female's perception about environmental issues. Furthermore, probing the association between male and female education in their perception for environmental issues. A study revealed that females are more conscious and thoughtful about environment as compared to males as females are caring by nature (Dietz, Stern, Guanaco: 1998). The same idea was supported later on by another researcher Harris Survey (1991) argued that the females are not only worried about the quality of environment but they are also concerned with the policies enacted by government. Nevertheless, a study by McIvor (1972, quoted in Van Lyre and Dunlap 1980) hypothesized the greater involvement of males in environmental concerns than females. This study also focuses on the reason of their greater interests which are supposed to being highly educated and active politically as well as communally than females. However, some studies revealed the reverse results and support females concerns more than males while suggest reasons that the focus of males are centered with economic growth and development and they see environment as a constraint in the progress of economy (Van, Lyre and Dunlap: 1980). Many researchers debated on transformations in gender roles. They believed that mothers are more caring and worried about the native ecological problems than fathers do. Researchers further gave explanations of this hypothesis as this variance of concern relies on different roles based on gender in the community. Mothers are supposed to be more associated with wellbeing and fitness of family while fitness and wellbeing is connected with the native environmental excellence like pure water, pollution free air and solid wastes etc. On the other hand, fathers are associated with the substantial and economic welfare of their family (Stem: 1993).

The survey technique of data collection was adopted by the researcher to collect the data which was collected quantitatively. The researcher took the residents of Islamabad that are currently

residing in the city, as respondents of the study. The sample was selected by the researcher through multistage cluster sampling than the respondents were selected by proportionate random sampling. The sample size was 670 respondents and the tool for data collection was in the form of questionnaire.

The final results showed that there is no statistically significant difference in the perceiving of environmental problems among males and females. While there is a significant negative relationship between age and attitude towards environmental issues as well as age and knowledge also have significant negative relationship. The present study is done by the researcher cross-sectionally. The recommendation is to investigate it longitudinally so, that it would be useful in analyzing the knowledge and awareness regarding environmental issues over a period of time.

## **7.2 Discussion and Conclusion**

According to the census of 2017, the total population of Islamabad Capital territory is 2,001,579. The population of males in capital is 1,055,712 and females are 950,727 while transgender are total 133 (Pasha, Dr, and Hafiz 2017). The research also has almost the same proportions of males and females. This research was based on people opinion about environmental issues. Some of the portion of research comprised of knowledge base questions in order to check the awareness levels of people of both genders. While some questions were based on attitude and behavioral patterns followed for the healthy living in people's opinion.

A research shows that most of the solid waste in Islamabad is caused by the industrial activities (Mahar et al. 2007) while this research shows that in people's opinion most of the solid waste in Islamabad is produced by residential activities.

Moreover, according to a research overall electricity produced in Pakistan by oil-burning power plants (Rehman et al. 2020) while this research shows that a large segment of population does not know the source of electricity production in their city.

Similarly, Research shows that solar energy is far better than other sources of energy (Bokris et al. 2007) and the results in this research replicates from this opinion. Another research shows that water is the renewable resource world-widely (Ellaban et al. 2014) the results of this research also resembles as in people's opinion water is a renewable resource. Alike a research

shows that major source of air pollution in Islamabad and Rawalpindi are motor vehicles and Industries (Hassan et al. 2013) and respondents of this research are aware of this fact.

The point where the responses differ in this research and other researches is that a research shows that increasing traffic is responsible for noise pollution (Subramani 2012) while results from this research negate this and respondents believe that vehicles play least role in noise pollution. The purpose of citing the searches from previous literature is to propose that there is a need of proper awareness and action projects to overcome the environmental issues. There are some parts of the people's opinion and knowledge where there is a need of awareness.

The principal purpose of this study was to investigate the difference in perceiving the environmental issues between both the genders. While this shows no significant difference in perception of males and females regarding environmental hazards. The study shows that knowledge and healthy behavioral practices towards environmental decreases as the age increases, explanation of which can be given as people in elder ages has less knowledge about the risks while elder people taught their kids about being mannered in society and usage of dust bins while they forgot to practice themselves.

### **7.3 Recommendations**

- The present study is done by the researcher cross-sectionally. The recommendation is to investigate it longitudinally so, that it would be useful in analyzing the knowledge and awareness regarding environmental issues over a period of time.
- The suggestion is that this study should be done at broader level so that a comparison can be drawn at larger level with more possibility of generalizability.
- It is recommended that other cities in Pakistan should be involved in to check the results of entire country.
- One of the main recommendations is the need to explore the categories where respondents remain neutral either in their perception or their attitudes. There is a need to explore those factors in which they're either not willing to response or maybe they're unaware of the actual facts.

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**Appendix A**

**Environmental knowledge attitude and practices among the residents of  
Islamabad**

We are researchers from the Department of Sociology, Quaid-i-Azam University Islamabad. You are requested to participate in this survey to help us seek your opinion about Environmental risks. It should take approximately 10 minutes to complete.

Your participation in this survey is completely voluntary, and you are free to decline to participate, without consequence, at any time prior to or at any point during the activity. The information that you provide will be kept confidential and used only for academic purpose, and will not be used in any way that can reveal your identity. I am thankful to you for your precious time and willingness to fill this questionnaire.

**Q1. Demographic Information**

1. Gender: a) Male b) Female
2. Age\_\_\_\_\_ 3. Occupation\_\_\_\_\_
4. Education: a) Illiterate b) Undergraduate c) Masters, d) M.Phil. e)Ph.D.
5. Marital status a) Single b) Married
6. Monthly Pocket Money/Income\_\_\_\_\_
5. Family Structure: 1) Living with both parents 2) Living with single parent 3) Alone/Single
6. Area of Permanent Residence\_\_\_\_\_

**Section A: Knowledge about Environmental Risks**

Q2. Circle the option which provides the best answer

**1) Most of the solid wastes in Islamabad are produced by**

- 1) Industrial activities
- 2) Residential activities
- 3) Commercial activities
- 4) Agricultural activities
- 5) I don't know.

**2. Which of the following is most likely to be an important world-wide source of energy for the future?**

- 1) Solar radiation 2) Tidal flow 3) Geothermal sources
- 4) Wind power 5) I don't know.

**3. Most of the electrical energy used in Islamabad/ Pakistan is produced by**

- 1) Nuclear power plants 2) Coal-burning power plants 3) Oil-burning power plants
- 4) Natural gas power plants 5) I don't know.

**4. Which of the following sources of energy contributes the least to environmental problems?**

- 1) Solar 2) Coal 3) Petroleum
- 4) Nuclear 5) I don't know.

**5. Which of the following is a renewable resource?**

- 1) Copper
- 2) Coal
- 3) Oil
- 4) Water
- 5) I don't know.

**6. The major sources of air pollution in big cities are**

- 1) Homes and industries
- 2) Agriculture and industries
- 3) Motor vehicles and Industries
- 4) Motor vehicles and homes
- 5) I don't know.

**7. Which of the following statements is true about air pollution?**

- 1 Air pollution is caused by man-made processes only.
- 2 Only some pollutants are harmful to health.
- 3 Air pollution is confined to certain political boundaries.
- 4 Pollution may give rise to irreversible changes in the environment.
- 5 I don't know.

**8. Noise levels have increased through the following except**

- 1 Rapid urbanization
- 2) Rapid industrial development
- 3) rapidly ageing population
- 4) Rapid increase in vehicle population
- 5) I don't know.

**9. Deforestation is responsible for**

- 1) The distortion of the rainfall
- 2) the destruction of habitat and foods species for the wildlife
- 3) The destruction of soil in the mountains due to erosion.
- 4) All of the above.
- 5) I don't know.

**Section B: Perception about Environmental Issues**

Q3. How much do you agree with these statements?

<b>Humans, environment and society</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
1. The oceans represent an unused area where man should dispose of his waste.					
2. The conservation of natural resources is totally the government's responsibility.					
3. It is too late for human beings to take actions to heal the damages caused by their activities.					
4. I believe that people can find ways to resolve the environmental problems.					



5. I am sure that new technology can help us prevent damages from environmental risks.					
<b>Humans, environment and society</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
6. I believe environmental problems are exaggerated; nature will provide balance, in a way.					
7. The benefit of the technological products used is more important than the harm they cause to the environment					
8. high-quality satisfactory worth modifying environment					
9. I can give up my comfort and consume less, if it will help to protect the environment					
10. Considering the problems of pollution and crowding, we need to decrease the use of cars.					
11. When humans interfere with nature it often produces disastrous consequences.					
12. Plants and animals exist primarily to be used by humans.					
13. Humans must live in harmony with nature in order to survive.					
14. Humans have the right to modify the natural environment to suit their needs.					
15. We are all responsible in one way or another for the depletion of the ozone layer.					
16. I think the next generation will have a better environment than we have right now.					

