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ENVIRONMENTAL ATTITUDES AND AWARENESS OF TURKISH, LIBYAN AND NORTHERN CYPRUS UNIVERSITY STUDENTS ON WATER

MASTER THESIS

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ABSTRACT

ENVIRONMENTAL ATTITUDES AND AWARENESS OF TURKISH, LIBYAN AND NORTHERN CYPRUS UNIVERSITY STUDENTS ON WATER

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This study aims at investigating environmental attitudes and awareness of turkish, libyan and northern cyprus university students on water The environment and water issues for the university students in North Cyprus, Libya and Turkey.

In order to determine attitudes and behavior of the university students in environmental education and water usage, questionnaires were applied to emphasize the importance of education in the formation of environmental awareness.

The purpose of the study is to determine with the help of surveys the attitudes and awareness about water and investigate whether university students in North Cyprus, Libya and Turkey have enough consciousness on the subject.

The research involves 300 university students in Northern Cyprus, Libya and Turkey. This study applied the relational model with quantitative research methods; it was carried out by giving students enough time to answer the questionnaire used as a data collection tool. The data obtained from the survey results were analyzed by SPSS 20 program. The Participants who were unrelated to the case determined that varies according to gender t - test, in determining whether parents' education level varies ANOVA, Cronbach's Alpha, Split-Half, Post Hoc test has been applied. Frequency and percentage were utilized to examine the behavior of the students regarding the adequacy of the environmental education.

The findings obtained in this study show that students lack of environmental education concerning water and their general knowledge is not adequate.

Key words: Environmental education, environmental awareness, environmental information, water.

ÖZET

KUZEY KIBRIS'TA, LİBYA'DA VE TÜRKIYE'DEKİ ÜNİVERSİTE ÖĞRENCILERİNİN SU KONUSUNDA ÇEVRE TUTUM VE BILINÇ DÜZEYLERİNİN SAPTANMASI

Mawrad. S. BOAGLEL

Yüksek Lisans, Çevre Eğitimi ve Yönetimi A.B.D.

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Bu araştırma Kuzey Kıbrıs'ta, Libya'da ve Türkiye'deki üniversite öğrencilerinin çevre ve su konusunda tutum ve bilinc düzeylerinin yeterli olup olmadığını araştırmaktır. Üniversite öğrencilerinin çevre eğitimi ve su konusundaki tutum ve davranış düzeylerini belirlemek amacı ile anket uygulanmış ve çevre bilincinin oluşmasında eğitimin önemi vurgulanmıştır.

Araştırmanın evrenini Kuzey Kıbrıs'ta, Libya'da ve Türkiye'de öğrenim gören 300 üniversite öğrencisi oluşturmaktadır. Nicel araştırma yöntemi ile ilişkisel tarama modelinin uygulandığı bu çalışma, bilgi toplama aracı olarak kullanılan anketlerin yeterli zaman verilerek öğrencilerin cevaplaması ile gerçekleştirilmiştir.

Verilerin toplanmasında çevre anket formu kullanılmıştır. Anket sonuçlarından elde edilen veriler SPSS 20 programında çözümlenmiştir. Çevre sorunlarının bilinç ve farkındalık durumunun katılımcıların cinsiyetlerine göre farklılık gösterip göstermediğinin tespitinde ilişkisiz t-testi, eğitim, anne-babanın eğitim durumuna göre farklılık gösterip göstermediğinin belirlenmesinde ANOVA, Cronbach's Alpha, Split-Half, Post Hoc testi uyğulanmıştır.

Öğrencilerin çevre eğitiminin yeterliliğine ilişkin davranışlarının incelemek üzere frekans ve yüzdelerden yararlanılmıştır.

Araştırmada elde edilen bulgular, öğrencilerin çevre eğitimi ve su konusunda genel olarak bilgi düzeylerinin yeterli düzeyde olmadığını belirtmiştir.

Anahtar Kelimeler: Çevre eğitimi, çevre bilinci, çevre bilgisi, su.

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ABBREVIATIONS

- **X:** Arithmetic Average
- N: Number Of People
- (%): Percentage
- P: Significance
- XIX th: 19th Century
- **WDD:** Water Development Department
- TRNC: Turkish Republic Of Northern Cyprus
- **MDGs:** Millennium Development Goals
- **GMR:** The Great Manmade River
- **GDP:** Gross Domestic Product
- FAO: Food And Agriculture Organization Of The United Nations
- MCM/Yr: Million Cubic Meters In Year
- MCM: Million Cubic Meters
- SAS: The Sahara Aquifer System
- **B2B:** Social Media Collection

TERMINOLOGY

ENVIRONMENT: Environment includes two types of living and non-living environment. Living environment, sharing the same physical space with live and all other living creatures are directly or indirectly affected by it. The a biotic environment is a physical place like rock or water where living creatures live in or on it. (Yücel, 2006; Armağan, 2006).

ENVIRONMENTAL PROBLEMS: It is a broader concept when compared to the concept of environmental pollution. Thus environmental problems are discussed further as deterioration contamination. Living (people's) behavior and ways of life are all constituent negative factors (Erten, 2006).

ENVIRONMENTAL AWARENESS: "The relationship between a person's environment and being aware of the importance of their presence" (TÜBA, 2002; Vaizoğlu ve diğ, 2005).

WATER: Is a basic molecule made up of two hydrogen atoms and one oxygen atom.

ENVIRONMENTAL POLLUTION: All activities of the environmental changes that affect people in a negative way or incorrect use of our resources in the wrong place, In other words, modern people's ecosystem is defined as a force which cannot be considered ecologically (Erten, 2000).

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CHAPTER I INTRODUCTION

Environment is a set of living and inanimate interaction. The world also increased environmental pollution, especially starting from the kindergarten school and the necessity of the environmental education at university. The environment has largely replaced the environmental education on the new generations to grow up in terms of environmental issues and the importance of the quest for greater than (Sungurtekin, 2001).

All people in the audience and environmental education are also sensitive to the environment, the development of positive attitudes and behaviors regarding environmental protection. If included in school curricula, environmental education can be provided to achieve the objectives of environmental issues. Environmental education is fundamental for the protection of nature and natural resources. But air, water, soil, plants and biosphere in order to understand how to protect the fauna and to be able to get into biomes and ecosystems must be well known all around. For this, the pre-school education should provid materials to make a variety of activities and environments where children use their senses and are required to demonstrate feedback. Children realize their theoretical knowledge of the environment and they forms environmental profective habits. Life-long habits and values that we obtain by environmental education should start from early childhood that develops in the first years of our lives (Şimşekli, 2001).

Water, the main source of life, is the most essential need for all living beings. At first glance the earth of sufficient amount of water for all living beings. Although the total amount of water in the world is 1.4 billion km3, 97.5% of the water is the oceans and seas as salty water, 2.5% as fresh water in rivers and lakes. Less than 90% of fresh water resources are polarity and therefor men is trapped underground easily due to very limited amount of fresh water suitable to benefit from. On the other hand, the rapid growth of the population and as a result of industrialization global water resources are also consumed and the situation is tainted and pressure on these resources is increasing with each day.

Especially in recent years, lack of rain, and inefficient use of water resources in the world raised the need to top level. Today water scarcity in many regions of the world has become one of the most important issues of this century and global water crisis has

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began to be pronounced. In 2000, the Stockholm Water Symposium, about 350 million people in 26 countries drawn by thirst, and do not have sufficient water resources number of people were reported to be 1.2 billion people. These figures are taken into account as much as one third of the world population means when faced with water problem (Atabey, 2005).

Today, water has ceased to be the subject of only engineering work; economy has become the subject of ecology and social sciences. "Sustainable water management", "integrated water resources management", "water management" put forward a number of new concepts and began to discuss the implementation of these concepts. These discussions are particularly developed and developing countries continues, to face water pollution on, deficiencies in water supply, natural disasters such as droughts and floods. Since the 1990s, the World Water Council has ensured global cooperation and solidarity by setting up new international institutions such as the Global Water Partnership (Bilen, 2008).

Under these conditions, effective management of water resources has begun to hold one of the priority issues of the country. At the same time, sustainable use of limited freshwater resources, for the countries where it is crucial necessity of saving water saving is of vital importance for world order and prosperity.

1.2.Problem

Do the university students from Northern Cyprus, Libya and Turkey have sufficient awareness of using water?

1.2.1.Sub-Problems

- Do the university student from Nothern Cyprus, Libya and Turkey have sufficient awareness of using water?
- Are there any differences on water awareness between male and female university students?
- Are there any differences between environmental education & water awareness of university students and financial situations of their families?

- Are there any differences between environmental education & water awareness of university students and educational backgrounds of their families?
- Do the students being a member of any association affect this situation?

1.3.Aim Of The Research

The aim of this research is to determine the level of the university students', from Northern Cyprus, Libya and Turkey, attitude towards and awareness of water by survey, and to research if those students have sufficient awareness of this point or not.

Educators bear great responsibility for informing the society about environment and environmental concerns, and training individuals who will be active to find solutions for those concerns. So, at this point, the importance of training educators who have qualifications and capabilities enough to give the education mentioned above arise again (Altın, 2001).

This research is all-important in terms of the fact that it contributes to increase environment-related knowledge of the university students and their awareness of the environment, and to be an example of this kind of researches. Also, it has importance because of being a kind of resource for the future researchers.

In this research, we tried to highlight the importance of the environment, and to understand and to make understood how serious the environmental concerns are. Moreover, this research is important in terms of contributing to improve individual and social awareness of environment.

1.4. The Importance Of The Study

After scanning the literature carried out in this research, it was understood that such kind of research has not ever been conducted, and it has been thought that this research would be a model for other researches. It was believed that it would be helpful, to increase the students' awareness of the subject.

1.5.Assumptions

- 1. The knowledge given by the students, participated in this research from Northern Cyprus, Libya and Turkey about the level of their attitude towards and awareness of water has been conjectured on.
- 2. It was supposed that non-controllable parameters effect all the students equally.
- 3. It was assumed that improved questions of the survey would provide the required data for this research.

1.6.Limitations

This research was conducted in the limits mentioned below:

- This research is limited to the university students who were studying in Northern Cyprus, Libya and Turkey in 2014 2015 academic year.
- It was limited to 300 students who were studying at the university in Northern Cyprus, Libya and Turkey.
- The resources used in this research are restricted .

1.7.Definitions

Environment is a biological, physical, socio-cultural and legal setting where human in regard of individual, community in the regard of pluralistic and all the people in regard of global, live together with other creatures (Gökçekuş, 2009).

Environmental concerns are all the factors which create negativeness in the ways of behaviour and living of the creatures (Erten, 2004).

Environmental concerns are the problems related with obstacles which make difficult or impossible to meet life-related necessities. Those obstacles are called "environmental pollution" (Ministry of Environment, 2000).

Education about the environment should involve all parts of the community for awareness, and behavioral change about the environment. The main aim of the education about environment is to help individuals, who receive education, become citizens who have knowledge, ability and values which could provide and encourage to display responsible behavior towards the environment (Devlet Planlama Teşkilatı, 2001).

As water resources management will be more complicated in the future because of changes in population growth, climate, socio-economic and environmental conditions, we can define the sustainability as "it is to realise the water systems in a way of contributing fully to social objectives by protecting ecological, environmental and hydrologic integrity in the present and the future" (Bilen, 2009).

The term environmental awareness has many areas of usages but it mostly takes place in politics at present. Environmental awareness implies, as most of the scientists emphasize, environmental knowledge, attitude towards the environment and behavior good for the environment. The person with environmental awareness is the one who has not egoist but environment friendly behaviors; who is not neutral and indifferent to destruction of the environment; and who thinks just about his own benefits and becomes ambitious about them (Erten, 2004).

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CHAPTER II RELEVANT LITERATURE

2.1. The Concept Of Environment

Environment is divided into two types: biotic environment and abiotic environment. The biotic environment is all living creatures which share the same physical environment with living beings, and which affect the living beings directly or indirectly. And the abiotic environment is all the concrete environments, such as rocks, water etc., in or on which the living beings live.

The reason why the concept of environment has gained importance and become the main topic of mankind is because of, not totally but mostly, the pollution. After the Industrial Revolution, the nature has been damaged and changed more rapidly by using it over its self-regeneration capability by humans. The environmental pollution has become visible together with the wave of economic growth which started in 1950s. Because of the effluents resulted by technological development increasing by the desire of economic growth and, in consequence of it,industrialization gaining speed, the environmental pollution has increased as well. Just for improving and maintaining their industries, especially developed countries polluted their environment in and from which they produce their products and supply their raw materials. Furthermore, just to supply raw materials, those countries polluted not only their own countries but also most of the countries for which they use the resources; so, the extent of the pollution becomes greater. Besides all this, with the desire for scientific and technological development and economic growth, the environmental pollution influencing all over the world has become a kind of threat to lives of the living beings (Yücel, 2006).

After World War II, human effects on the nature has increased intensely because of the technological change in manufacturing. It was 1940s when the synthetic products, which are one of the important reasons of environmental destruction and which were used also in 2009, were first manufactured. Especially, it was after World War II when the problem of destroying wastes of the plastic substances was first arisen. Presentation of nucleer energy as an alternative during the usage of atom bomb also happened after the war. Moreover, the synthetic products of which usage was increased after the war started to be used also in daily life. Meanwhile, consumption has also been increasing together with the increase in population.Many factors like the usage of fertilizer in agriculture, increasing usage of chemicals to destroy pests and plants and increasing usage of motor vehicles in transportation technology has expedited the destruction of the environment .Therefore, coming up against the environmental concerns / problems for humans was majorly started with manufacturing technologies and its products which were developed by humans themselves again after World War II (Foster, 2002).

Due to the fact that the nature is able to regenerate itself, the relationship between humans and their environment kept going in a certain and harmonious way from the first ages to the Industrial Revolution. After the Industrial Revolution, the harmony between humans and the nature started to go bad. Challenge of humanity with the nature has been going on since its existence. This cahallenge which was, at first, just about needs of housing, eating and wearing continued in a balanced way until the middle age. Yet, after the middle age, humans started to win much more in this challenge. Humans' effort to take all the control of all the nature became a kind of ambition to use the nature limitlessly and this ambition exceeded the regeneration rate of the nature after the Industrial Revolution. With the development of the technology and, thus, the industry, humans ignored the harm they caused to the environment from 1800s to the end of the 20th century (Görmez, 2003).

The nature responds to what it gets. As the desire of humans for taking control of all the nature and using it much more increased, the nature started to show reaction prominently to this situation -especially, after the second half of 20th century. Because its reaction was just regional and small-scale at first, it didn't draw much attention. But, because of the fact that problems such as the global warming which increases day by day; changes in the climate; the ozone layer being depleted; and, as a results of all these, drought, famine and hunger , the interest in environmental concerns also increased.

2.2. The Factors Causing Environmental Concerns

The main reason to the environmental problems and the pollution is the human and the places where humans live in all together. In a general meaning, pollution is defined as the dump resulted by the wastes that the nature cannot clean, and the effect of the pollution changes in compliance with the materials or groups of those wastes.

It is known that the environmental concerns did not show up suddenly but in due course, and it has become the way it is today (Keleş ve Ertan, 2002).

The main factor which caused and developed the environmental problems is the rapid technological development occuring in the last 40-50 years and, correspondingly developing economical change. Both of these processes, adherent to each other have led people to use natural resources excessively by increasing human necessities in an enormous rate. Furthermore, population, quantity and variety of industrial products, technical tools and social equipments also increased; and therefore, consumption human desire to consume also increased incredibly. As the result of this, developments started to shake, and destruct the life of all living beings; and made the world unliveable (Çepel, 2003).

It is known that there are various reasons causing environmental problems and all those reasons have been revealed in different ways by different experts. But, in general terms, when taking the subject in hand, we see that the main reasons are: unawareness of people about how the destruction of the nature they cause will affect them; the wrong idea that the nature can regenerate itself whatever happens; and population increase, at the present time, in large numbers.

The assumption that all the environmental problems are just because of science and technology means not to see the other reasons of the problems and so, not to be able to find solutions.

There are two kinds of approaches to environmental problems. The first one is that degeneration of ecology's and social system's balance might foreshadow of a new balance. The problems should be incrementally analyzed in system, and the system integrity should not be distrupted. The second one is to claim that the environmental problems cannot be solved unless there is revolution in mentality and the attitude, and reform suggestions will just delay the solution. The common thread to both of these approaches is to accept that the root of the environmental problems are the problems in mentality. This mentality is the idea of "Enlightenment" which makes the human mind the only power to effect contributing the development of modern science and the technology, and which enables unlimited right to humans to chang the nature. This predominating mentality is that "the human is the source of all the values"; "the human has been created to produc and consum"; "this producing and consuming could be increased endlessly". Because the aim is to increase happiness and welfare of the human, more development is required for the welfare, and more production and consumption for

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the development. It is supposed that the resources are limitless, and it is believed that it is possible to replace the depleted resources by using science and the technology. Adoptating the nature in accordance with human's desire and winning the challenge against the nature are the symbols of civilization and development. It is accepted that the most important indicators of the development are science and the technology. All these features of mentality mentioned above indicate that modern paradigm is human-centered and human, who has had the dominance since the Enlightenment era, is able to change unlimitedly the nature as they wish. It is inevitable that the mentality with these features which put human in the center of everything causes the disturbance of the natural balance (Demir, 2007).

The economic growth starting with the Industrial Revolution and, therefore, the consumption process increasing continually have caused the environmental concerns reach to incredable extent by the contribution of technological developments.

The factors, causing environmental problems, such as rapid population growth, unplanned urbanization, industrialization and tourism can not protect the natural resources sturdily too.

2.2.1. Population Growth And Migrations

Population Growth is one of the important factors which affects demand more resources and which causes degeneration of the nature. There is no advantage of population growth within the context of the environment and the natural resources. The earth still has to shelter and feed 6 billion people; which by 2015, it will be over 7 billion. After the increase in consumption necessities because of this rapid population growth, and the change in habits and expectations, it is an inevitable end that the environment and the ecologic balance will be affected (Metin, 2001).

Rapid population growth causes increase in the numbers of young and old people who are not producers but consumers, and thus, it also causes those unproductive people to place burden on the productive ones economically (Görmez, 2003).

Another result of the rapid population growth is that it causes increase in demographical investment share in total investment. The rapid population growth both causes the increase in unproductive young and old population who doesn't contribute to the economy at all and causes requirement to invest much more on areas like schools,

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hospitals, parks etc. to meet the needs of this group of people. As a result of this, the countries actually with limited resources and rapid population growth, cannot direct their investments to major areas which are necessary to develop economically. Migration to the cities goes on with an increasing rate every year. This situation leads to increase in unlicensed constructions and shanty houses without infrastructure, and emergence of problematic areas which has no demand facilities and green fields, and so, of which social problems being hard to be solved increase rapidly (Daştan, 2007).

2.2.2. Urbanization

One of the factors causing environmental problems is the rapid urbanization which has been an accentuated issue not just today but also since the environmental problems have started to become really serious. In other words, industrialization and industrialization-motivated rapid urbanization are always considered as two problems evaluated together.

Problems likeair pollution, water, soil resources as well as the destruction of historic fabric, desertification because of forest destruction, soil erosion etc have been affecting negatively the healthy, natural habitat of people (Önen, 2002).

2.2.3. IndustriaLization

Industrialization and the efforts to meet the demand increasing gradually in parallel with the increasing population require the usage of an enormous amount of natural resources in a wider scope, and thus, there arise lots of environmental problems besides to rapid consumption of resonrces.

The industrialization developing rapidly depending on the technological developments offers important opportunities to the humans; but it also results in some undesirable problems such as environmental pollution, irreversible pollution and consumption of natural resources in some situations. Bu this doesn't mean that the industrialization is a kind of undesirable development for humanity. The factors such as destruction of the resources without long-term and dimensional evaluation, development of economic systems which creates consumption-centered communities, nuclear weapon production, indifference on possible risks of by-products, which have features of destroying living species, adopted technology, rapid decrease in cultivated areas, excessive urbanization and population concerns have canserd growth in environmental

problems. This caused human societies to have negative attitude towards industrialization. For instance; in 1996, the accident which happened at chernobyl nuclear power plant in the Soviet Union caused human societies protest the nuclear plants on the ground to pollute the nature with radioactive risks to affect human health negatively (Türküm, 2006).

2.2.4. Tourism

Tourism activities which increase rapidly and are expected to increase more in the future have negative effects on cultural, natural and physical environment. Due to the fact that there is increasing demand for tourism internationally, opening various touristic places to tourism without any infrastructure and equipment causes concretion and natural resources and physical environment are damaged. Rapid population growth, growing industrialization, depletion of unrenewable natural resources, environmental pollution and degeneration threaten majorly the common future of our world day by day (Akpınar, 2001).

2.2.5. Lack of Education And Indifference

One of the most important factors of environment pollution is the lack of education and indifference of the individuals.

Human is generally the factor taking an active role in the eco-system where all the creatures (living and non-living beings) exist together. So, humans are responsible for also protecting the environment, recovering it and not to polluting it (Karch, 2002).

2.3. Major Environmental Problems

Environmental issues are the environmental degenerations caused by abuse and misuse of the nature and natural resources, by air pollution, the water and the soil, which are the physical elements of the nature (Özata, 2005).

The term "Environmental Issues" is a broader concept than the term "environmental pollution". Therefore, the environmental issues include other degenerations except for the pollution. It is the whole enchilada of the creatures' (humans') way of behavior and living (Erten, 2006).

The environment, a set of relations, becomes a problem because of the fact that the effects caused by the humans outrage the natural balance. When natural balances cannot overcome new challenges, there happens imbalances called "pollution". Thus, as the non-renewable resources are being consumed by humans' endless expectations, there happens destructions or degenerations in renewable resources, or the problems in humanenvironment relations increase by disturbing situations like noise, esthetical degeneration etc. (State Planning Organization, 2006).

As known, recently there has been natural disasters such as floods, severe drought, strong wind and deadly summer temperatures, which results in a great loss of life and prosperity. These are not surersing events for the humanity. These are the confrontation of humanity with the grim reality which has been mentioned continuously by the scientists but has been ignored because of the desire to get more welfare and profit. If the indifference about the protection of the environment keeps going in this way, the humanity will quite likely confront with greater disasters. Besides the industrialization, human plunderage of nature, using it ruthlessly just for their own profits underline all these issues. And as a result of this, numerous environmental issues threaten both us and the next generations and all the other living beings, as the phrase goes, glower at us (Erten, 2000).

Since the first existence, humans have embarked on a quest to take the control of the nature, and have used the nature unlimitedly by the help of science and technical possibilities. As a result of this, they have broken the harmony in their relation with the nature. Humans, who ignored the destruction of nature they caused, have understood that they need to live confortably together with the nature in order to be able to assure their future after XIXth century when they started to confront with many problems in their relationship with the environment. The degeneration of the environment has come out of nowhere; rather, it has emerged in due course by accumulating. Because the nature is able to generate the adverse conditions for a period of time thanks to its renewal ability; yet, as the pollution level exceeded the nature's renewal ability, the environmental degeneration started. Once the air, water and soil is pollnted it excessively influenus various animal and plant species with the food chain, and it has started to threaten their lives. Rapid population growth, increase in the migration from rural areas to cities and the industrialization have caused proliferation and increase in pollution. On the other hand, because of the fact that the natural resources are limited and most of them are majorly degenerated by the pollution, increasing population. Food became insutticient and healthy.

Mean while, pepole became more conscious and concerned about the future and began to think about environmental issues more seriously.

Some of the environmental issues are explained below:

Water Pollution: The elements mixed into the water cause physical (color, temperature rise etc.), chemical and biological chang as in water. This is called "water pollution". Water pollution happens when undesirable harmful elements (detergents, pesticides, industrial wastes etc.) mix into with water at a measurable rate and at an amount which could harm the living beings.

Soil Pollution: The physical and chemical features of the soil could change in an undesirable way directly or indirectly. This is called "soil pollution". Soil pollution emerges as dampness, being rocky, fertilization and industrial degenerations caused by erosion, desertification and drainage deformities. It emerges also when the pollution elements in air and water pollute the soil.

Some industrial activities could cause soil pollution directly or indirectly (by polluting the air and the water). Polluted air or water causes reduce in quality and fertility of the soil by degenerating its physico-chemical and biological features. Moreover, some toxic substances created by various industrial activities accumulate in agricultural products and, later, transfer to other creatures by way of food chain.Various pollution factors in the atmosphere also cause soil pollution by precipitation (rain, snow etc.), being absorbed or precipating directly. SO² converts into sulfurous acid by dissolving in precipitation water or soil solution, and causes soil to be acidic. The wash out of plant nutrition elements become easier by the acidification of the soil. Furthermore, acid rains cause great destruction in cultivated areas and forest lands (Keleş ve Ertan, 2002).

Air ollution: The contaminators spreading to the atmosphere by a certain source degenerate the natural composition of air and convert it into a texture, which would harm living beings and the nature. This is called "air pollution". The contaminators are all substances which are released by the humans to the air directly or indirectly and which have negative effect on human health or, in a more general meaning, the environment. The contaminators in the air become harmful when they exceed the certain amount (The Control Instructions of Air Pollution Caused by The Industrial Facilities, 2006).

Air pollution can be defined as a fact of venting of the contaminators happening by various activities of humans and causing pollution in resources and as a result to giving harm to human health, and the fact of being in the atmosphere of one or many of those contaminators in an amount and time which could harm human health.Besides, it is defined by WHO as "the increase of the contaminators in the forms of dust, smoke, gas, smell or water vapor in the atmosphere in the amounts could harm humans, other living beings and the objects (Air Quality Guidelines Global Update, 2005).

Noise Pollution: All the undesirable sounds disturbing living beings are defined as "noise pollution". Noise pollution is a kind of important pollution which affects humans' hearing and perceiving the environment negatively, and impairs individual and social life quality; and it can be analyzed under two titles: indoor and outdoor noise pollution. Noise pollution causes people physical (hearing disorders), physiological (changes in body functions such as repiratory and cardiac acceleration, increase in blood pressure etc.), psychological (behavior disorders such as short temper, embarrassment etc.) problems, performance problems (concentration imparment, reduce in productivity etc.) and even, serious brain damages (Yücel, 2006).

Wastes: The wastes caused by population growth, technological developments, industrialization, urbanization and diversifying consumption are, at the present time, one of the environmental issues because of their negative effects on the environment and human health. As a result of the increase in consumption being described as "welfare increase", required feedstock and energy resources were exploited and the damages given to the environment were regarded as the cost of the development. Moreover, as the level of living increases day by day, the amount of the wastes also increases and their context changes. It has become a really important problem to destroy all these wastes with minimum damage to the environment - especially, in metropolises. The wastes are the fact of consumption and production processes (State Planning Organization, 2001-2005).

2.4. Water Resources And Water Problems In Libyan, Turkey And TRNC2.4.1. Water Resources And Water Problems In TRNC

Cyprus, an island in the Eastern Mediterranean, relies on its highly variable precipitation for its natural renewable water resources. Average annual rainfall over the Republic of Cyprus is approximately 460 mm, as is typical for dry Mediterranean

environments, the majority of this rainfall, about 86%, returns to the atmosphere as evapotranspiration (green water), while blue water forms a small remainder, with 7.1% for surface runoff and 6.7% for groundwater recharge, according to the 1971-2000 water balance. This amounts to 370 Mm3 renewable blue water per year, on average. Thus, with a population of 799,7002, Cyprus' average annual renewable water resources are about 460 m3 per capital, placing Cyprus among the top-twenty water scarcest countries of the world. Not with standing Cyprus' motivational water policy slogan "not a drop of water to the sea", not all of the blue water can be economically abstracted, while, on the other hand, water's role in providing ecosystem services should also not to be overlooked. Another important concern is the high variability within and between years. During the two driest years of the past four decades, the country received just 213 mm (1972/73) and 272 mm (2007/08). Similar to a number of countries in the Sahel4, Cyprus has already experienced a decrease in precipitation in the recent past. As part of a study on the reassessment of the water resources of Cyprus, a regional analysis of the changes in precipitation found a statistically significant step change in the 1916-2000 annual precipitation time series between the hydrologic years 1968/69 and 1971/72, with a 15-25% reduction in precipitation for the last 30 years of the 20th century. The average annual precipitation over the government controlled area of Cyprus was 466 mm for the 1970/71-2009/10 period, as compared to 541 mm for 1901/02-1969/70 (Cyprus Meteorological Service, 2010-2011).

Climate change projections, based on a set of six regional climate models under the A1B scenario, indicate that Cyprus could possibly experience another 2-8% reduction in annual precipitation between 1976-2000 and 2026-2050.(Hadjinicolaou et al, 2010). While the outputs of 16 global models for the B1, A1B, A2 scenarios10 projected reductions in annual precipitation ranging between 0 and 28% for 2040- 2069, relative to 1961-1990 (Climate Wizard, 2009). The medians of this global model ensemble showed reductions between 10 and 19% for the three scenarios. Water demand, on the other hand, keeps on increasing. The total annual water demand for the Republic of Cyprus has been estimated as 252 Mm3 for the year 2011 (Karavokyris et al, 2010).

This demand is divided over the different sectors and is used as follows: 60% for irrigation, 3% for livestock, 26% for domestic use, 4% for tourism, 3% for industries and 4% for landscape irrigation. Environmental flows were not included in these demand computations, but minimum flow thresholds and maximum extraction rates were defined

for the January-April winter months for a number of streams. In addition, a minimum amount to maintain the ecosystem of the dam water body was included in the proposals for the management of the abstractions from dams (Water Development Department, 2000).

The computed 152 mm3 water demand for agricultural irrigation may have been underestimated. An independent study computed irrigation water demand to range between 195 and 250 Mm3 per year, based on detailed land use, soil and climate data (Zoumides et al, 2010). Part of this demand is met outside the government irrigation schemes through diversions from springs and streams or pumping for groundwater, while part of the demand, especially during drought years, is not met. Climate change has been recognized as an important security challenge, contributing to increased migration, border tensions, spread of diseases and conflicts over food and water (Scheffran et al, 2011). Freedom from hazard impacts such as floods and droughts has been identified as a fourth human security pillar, following freedom from fear, freedom from want and freedom to live in dignity (Brauch, 2008-2009).

The water problem existing in every period of the history in our country has acquired a new dimension because of drought occuring in recent years and the life conditions changing. Increasing water usage of our society, which has a chance to benefit from most of the opportunities of the modern era, has increased water demand with the development of industry and the tourism.

Within the boundaries of TRNC (Turkish Republic of Northern Cyprus), there is no stream flowing constantly as a ground resource. There are just gulleys which flow generally in winter months in short-term with regard to annual amount and intensity of rainfall.There are 38 gulleys, 10 of which feed from the sources in Greek Populated Northern Cyprus. Almost all the portable water and greater part of the irrigation water are supplied from underground water resources -in other words, they are supplied from aquifers. There are 13 aquifers in TRNC. Most important ones are Güzelyurt, Girne Mt. and Yeşilköy aquifers. Because of the fact that we draw water from aquifers more than their feeding, there is a reduce in water table and also, there is degeneration in water quality day by day. Moreover, depending upon these reasons, the greatest problem in aquifers is salinization (Öztürk, 2002).

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It cannot be denied that ponds created for irrigation and feeding the underground water in TRNC would reduce the usage of underground water and contribute to protect existing reserves. But, there is one more fact which cannot be denied that all of these ponds and irrigation systems are dependent on meteorological conditions. The indications of drought in climate conditions, systematic reduce in rainfall have directed people to find other solutions (Öztürk, 2002).

2.4.2. Water Resources And Water Problems In Turkey.

Geographically, there is a large variation in annual precipitation, evaporation and surface run-off parameters in Turkey. Precipitation is not evenly distributed in time and space throughout the country. There are 25 hydrological basins in Turkey. The rive often have irrgular regimes.

(http://www2.dsi.gov.tr/english/pdf_files/TurkeyWaterReport.pdf).

The elements of annual water budget of Turkey are illustrated in Figure 2.5. The given water budget is calculated from the data of the years 1935 and 2008. Considering the average surface water run-off which is 186 billion m3 /year with the surface run off of 7 billion m3 /year coming from neighboring countries, the total surface run-off within the country reaches to 193 billion m3 /year. On the other hand, the average amount of ground-water leakage is 41 billion m3 /year. However, not all the renewable water resources can be utilized because of economic and technical reasons. Exploitable portions of surface run-off including inflow from bordering countries, and groundwater are 98 and 14 billion m3 /year, respectively. Thus, the total of economically exploitable water resources potential amounts to 112 billion m3 /year. The 25 hydrological basins in Turkey have a total surface water run-off of 193 billion m3 /year. 31% of the potential is constituted by the Euphrates and the Tigris Rivers both of which have their sources in the eastern part of the country (www2.dsi.gov.tr/english/pdf_files/TurkeyWaterReport.pdf).

Taking into consideration the population of 2007 which is 70,6 million, the amount of water per capita per year is 1,586 m³. Countries regarded as being rich in water resources have 8-10 thousand m³ water per capita per year. The available water per capita per year in Turkey is about 1/5 of the water-rich countries. It should be noted that Turkey, contrary to the prevailing belief, is not a water-rich country. Furthermore Turkey is not the richest country of the region in terms of water resources. The available water per capita in Turkey is less than the world average. Furthermore, it is estimated by the experts

that, in 2023, the amount of available water will likely to be less than 1000 m3 /capita/year.

Comprehensive water planning activities have been carried out in Turkey since the 1950s. These have led to the construction of structures on rivers to regulate the flow and to meet the energy and food requirements of a growing population while achieving socio-economic development goals. The main approach for the integrated water resources management is to manage them in a sustainable way in the basin scale. In this context, Turkey has taken great steps in sustainable water management. Turkey's water management policies are directed towards satisfying the increasing demand for domestic water supply, achieving food security, generation of energy, and conserving the environment in accordance with international standards (http://www2.dsi.gov.tr/english/pdf_files/TurkeyWaterReport.pdf).

Water safety has recently become a major concern for many countries. The Millennium Development Goals (MDGs) adopted the goal of reducing by half the proportion of people without access to safe drinking water by the 2015. In line with the MDGs water and sanitation issues, efforts are being made to manage and ensure the efficient use of water, especially for sustainable development. Water resources are allocated to the various sectors by the DSI in line with an integrated water resources management approach (www2.dsi.gov.tr/english/pdf_files/TurkeyWaterReport.pdf).

Turkey gives great importance to integrated regional development projects. The Southeastern Anatolia Project, Eastern Anatolia Project and Konya Plain Project can be mentioned among them. In various sectors, as 34 billion m3 in irrigation, 7 billion m3 in domestic water supply and 5 billion m3 in industry totally 46 billion m3 of water was consumed in 2008. This sum corresponds to only 41% of the available exploitable potential of 112 billion m3 . According to future projections, the share of irrigation use will decrease from 74% in 2008 to 64% by 2023. On the other hand, the domestic and industrial use would increase to 16% and 20% in this period, respectively.

Water requirement increases steadily and the agricultural sector is the major consumer of water in Turkey with about 34 billion m3/year while the water volume to be utilized by this sector would be expected at the level of 72 billion m3 /year by 2023. Regarding groundwater, exploitable groundwater resources of Turkey are 13,66 billion m3/year excluding the discharge of springs feeding surface water resources. At present,

90% of the groundwater reserve has been allocated, 55% of which is for irrigation for domestic and industrial purposes (Turkey Water Report 2009/) http://www2.dsi.gov.tr/english/pdf_files/TurkeyWaterReport.pdf).

2.4.3. Water Resources And Water Problems In Libya

Libya borders the Mediterranean Sea between Tunisia and Egypt. It is among the five most water scarce countries in the world and paradoxically it has the largest fossil water reserves in the world. The population comprises some 6 million people, most of whom reside in the north of the country where most of the economic activities take place. But population is expected to rise to 8 million by 2025 and close to 10 million by 2050.

Some 90 percent of the country is sparsely populated and human activities are concentrated in oases where water is available from shallow wells. Rainfall here is almost non-existent. However it is in this region that vast underground fossil water resources were discovered and these now provide most of the water on which Libya depends. More than 700 deep wells now draw water and a conveyor-GMR (the Great Manmade River Project)-transfers water from these deep aquifers to the more productive coastal areas for domestic, industrial, and agricultural purposes (El-Tantawi, 2005).

The Libyan economy depends primarily upon revenues from the oil sector. Agriculture contributes about 9 percent of GDP (Gross domestic product) and employs 5 percent of the active part of the population. Some 2 million ha of rangeland are rain-fed, mainly along the coast where annual rainfall is 50 and 300mm. But more intensive irrigated farming has developed rapidly since the 1960s using shallow groundwater along the coast and fossil water transferred to the coast from the south. The FAO AQUASTAT (Food And Agriculture Organiztion Of The United Nations) database reports about 470,000ha are under intensive irrigation using both fossil and shallow groundwater. But some of this may now have been abandoned because of water shortages and poor quality water in the coastal aquifers (El-Bane et al, 2009).

2.4.3.1.Water Resources And Use

The annual renewable water resources from food and agriculture organizations of the United Nations database are shown in Table 1 together with annual withdrawals for agriculture, domestic use, and for industry FAO (Food and agriculture organization of the united nations, 2006). Most renewable water resources, which are predominantly groundwater, exist along the coast where rainfall is more abundant. But all the renewable resources are modest in comparison to withdrawals which total to 4,320 MCM/yr (Millioncubic meters a year), agriculture being the greatest consumer with 3,580 MCM/yr (Millioncubic meters a year). This imbalance is partly made up from over-exploitation of the coastal aquifers but mostly the water comes from the very deep fossil aquifers in the south of the country (Eldoumi et al, 2002).

2.4.3.2. Groundwater Supply And Demand

In Libya there are four major underground basins of water, which contains the combine dreserves of 35 thousand cubic meters of water. And they offer enormous quantities of r unlimited water resources. There are also underground water system, including the four sub-system sinter connected:

- The Murzuq basin
- Jabal Hasawnah
- Al Hamadah al Hamra system
- Jifarah Plain system
- Al Sarir-Al Kufrah basin system
- Al Jabal al Akhdar system.

Overall, the total estimated abstraction in the Country Report for 2000 is 4,448 MCM (Millioncubic meters) which is close to the the rest, about 3,000 MCM (Millioncubic meters) comes from the deep aquifers and is transported to the coast. Some data is based on pumping records while others are estimates based on population, areas irrigated, and aquifer model simulations. Although the data has limited accuracy they, do provide a good indication of overall water use in the country (El Sunni et al, 2004).

The coastal aquifers are relatively shallow and naturally recharged from the higher coastal rainfall. However, these are now seriously over-exploited and this is principally the reason for the exploitation of the much deeper and non-rechargeable aquifers in the south of the country (AL-Idrissi et al, 2004).

Al Sarir-Al Kufrah basin system, for example, is known as the Nubian Sandstone Aquifer System and is the largest aquifer in the world covering approximately 2 million km2 of north-east Africa. It extends across eastern and south-eastern Libya, north-eastern Chad, northern Sudan, and Egypt. It is of immense importance to the countries that share this resource. A mathematical model of this aquifer was used to demonstrate that in 2050 the aquifer would be able to cope with the expected development in the Kufra area, which includes phase III of the Great Man-Made River (GMR), with no significant impact beyond the political boundary with Egypt. The simulation of the proposed rates of groundwater abstraction in East Awaynat in Egypt in turn indicated there would be no interference beyond the political border with Libya.

The Al Hamadah al Hamra system exploits two major water bearing strata-the deeper Continental Interlayer sandstone aquifer and shallower Terminal Complex sandstone and limestone aquifers. Together, they extend across Algeria and Tunisia and form (SAS) (the Saharan Aquifer System). This system is the subject of an international cooperation set up in 2008 between the three countries to sustainably manage the groundwater resource. Libya has already carried out simulated pumping tests in the Continental Interlayer at Ghadames-Derj on the border between Libya, Algeria, and Tunisia. Although this would not affect the existing development plans in these adjacent countries there is always the risk that it may interfere with future developments. Any further exploitation of this well field at Ghadames-Derj would therefore be a subject for further discussion with the adjacent countries under the cooperation agreement (EL-Daried et al, 2009).

The extent of these deep fossil aquifers is so great that trying to determine the amount of water in them is rather an academic study. In some places they are more than 3,000m deep which means that most of the water is well beyond reach both physically and economically. So it is more useful to determine what can be physically exploited and at reasonable cost. The acceptable limits are currently between 250-300m depth and it is this that limits how much water can be abstracted. These constraints mean that only a small portion of the volume of water stored underground is available for use (Elfadli,2009).

Groundwater abstraction planning for the fossil water aquifers is based on how much water can be taken within a planned range of aquifer drawdown. The Water Transport well field of Jabal Hasawnah that supplies Tripoli for example, is designed to deliver water for a period of 50 years after which the depth to the water table will exceed 200-250m. With this drawdown saline intrusion is likely in the north western part of the aquifer. So an alternative water supply for Tripoli will need to be planned, designed, and implemented in the next 25-30 years (El Sunni et al, 2004).

2.5.Researches About The Environment, Environmental Education, Environmental Awerness And Water Inside

Ayhan (1999), In this research conducted in Ankara, it was aimed to determine the effect of family, teachers and school principles on bringing objectives and behaviours related to protection and development of environment subjects in the context of lesson of the first three graders in primary schools. In conclusion, National Education Ministry confirmed that the objectives, principles, aims and presented learning activities of the Syllabus of Primary Schools have the features which support the environment education; and the students are sensitive about environmental problems but they cannot use what they learn in all cases.

Akış (2000), In this research conducted in TRNC, the level of environmental consciousness was analyzed. With this aim, a survey about attitude towards the environment was carried out on 409 people. The participants describe themselves as "environment sensitive"; yet, they do make almost no effort to protect the environment in their daily lives. According to the results of the research, there is not advanced environmental consciousness in TRNC. Compared to most of the developing countries, the reason why its nature is more unspoiled is because of the fact that the country is separated geographically and politically. Protecting the nature degenerating day by day is dependent on to creating a strong demand and a public awareness which can force the government about this. This result supports most of the results of other researches which reveal that many people seem like environmentalist but they do not usually behave sensitive towards the environment.

Bahar (2000), In his research called "The Level of Prior Knowledge of University Students on Environmental Education, Misconceptions" he conducted on 200 university students, he analyzed students' level of knowledge about the subjects like ozone layer and greenhouse effect. As a result, he found out that most of the students either had had no knowledge or had had misinformation about this subjects until when they took the lesson "Environmental Science". He found it amazing that some of these students took the lesson "Environment and Humans" in high school.
Öztürk (2001), In his study called "An Environmental Education Program for Primary Schools", he prepared a set of environmental education programs to enhance the environmental subjects existing in the lessons "social studies, science and social sciences" given in primary schools, to help students gain environmental consciousness and responsibility. After the discussions and pilot schemes, he confirmed that the teachers need education about performing the environmental education programs prepared by him.

Morgil et al. (2002), In their research called "Research about Environmet in Education of Science and Preparing the Project of Protecting the Environment", they analyzed 30 6th graders about their level of knowledge on environmental education, and they searched also what kind of activities could be done related to environmental education in science lessons. In this research, they prepared a test of which context was soil pollution, water pollution, air pollution, environmental pollution and energy saving, and thus, they confirmed the prior knowledge of the students about those subjects. Then, they divided the students into groups, and the students were asked to prepare a project about the topics given. In conclusion, it was confirmed that students' level of knowledge about environmental education increased by the way of using project-based learning model.

Erten (2002), He aimed at solving two major problems with his research. The first one is about how the students could gain attitudes towards the environment via the lessons; and the second one is to test the practicability of Planned Attitude Theory by Ajzen (1985; 1991) in the education of environment and biology. The survey anticipated by the theory was conducted on 970 students in total (7th, 8th and 9th graders). At the end of the study, it was revealed that questions of the survey, which were related to attitudinal beliefs, did not have much effect on behavior oriented attitudes. It was discovered that the knowledge belonging to the questions related to normative beliefs is acquired from schools but the possibility of adapting the knowledge into attitudes is low.

Yildiz and others (2002), They prepared a survey about wetlands and its importance and concepts of habitat. They conducted this suurvey on 3rd grades who take the lessons Ecology of Plants and Animals and Limnology; 4th graders who take the lesson Environmental Biology; and 2nd graders who have no knowledge about this subjects. While the3rd and 4th graders generally answered the questions as expected, most

of 2nd graders gave uncertain answers. Ehen conducted the survey again after the2nd graders were exposed to field work, it was observed that there were differences in the answers. In conclusion, field work enabled students to perceive the environmental subjects better.

Görümlü (2003), In his thesis research, he concluded that the high school students cannot answer the questions related to the environment, the environmental issues and the environmental concepts; their sensibility towards the environment is medicore; and their attitudes towards the environment do not change dependent on the gender.

Özmen et al. (2005), In their research, they aimed at confirming the attitudes of university students towards environmental problems and the factors affecting their attitudes. In this descriptive study conducted on the students of Manisa Celal Bayar University Health College, College of Health Service and Medical Faculty, they did not choose samples; they conducted the study on 410 students out of 742 students. The survey with 24 questions was prepared by the researchers and the "environmental attitude scale" was used to collect data. Although %65,0 of the students claimed that they are sensitive about environmental issues, it was stated that %84,9 of them have not participate, in any kind of event organized by an environment of organization. In the analysis on point average between students' introductory and familial features and the "Environmental Attitude Scale", it was found that the "Environmental Attitude Scale" average of 20-years and above, old female students and the students who spent most of their lives in cities and the students who claimed that they are sensitive about environmental issues and argued that it is environmental education is essential -all of whom were studying at Medical Faculty and College of Health Services, were higher than the others (p<0,05). Moreover, the "Environmental Attitude Scale" average of the students who have less than 3 sisters or brothers and the students whose parents graduated from universities were higher (p<0,05). As a result, education plans which will make the groups sensitive towards the environmental issues active should be prepared.

Gezer et al. (2006), With this study, he aimed at determining and comparing the environmental attitudes of 9th graders who were studying at 3 different high schools in Buldan -at the beginning of 2006-2007 school years. The environmental attitudes were determined by using "5 point likert scale" developed by Özkan (2001). Cronbach alpha

value of the scale used is 79. It was found out that the points of the environmental attitude of the students studying in Akın High School were higher than the ones studying in A.T Anatolian High School and A.T Metem High School; and female students have better attitude towards the environment than the male students.

Aslan et al. (2008), In their study, they aimed at adapting the "Environmental Attitude and Knowledge Scale" developed by Leeming et al. (1995) into Turkish. By examining its validity and authenticity, they rearranged the scale and evaluated the environmental attitudes of primary school students. In the first term of 2006–2007 school year, the research was conducted in 10 central primary schools from the regions with different socio-economic levels in Amasya. The samples of the research were 525 7th and 8th graders from the schools assigned by unbiased way. The coefficient of the authenticity was found as α =0,860. While evaluating the data, technical and descriptive statistics techniques were used. In the results of the analysis, it was confirmed that there was not much statistical difference on the environmental attitudes between 7t and 8th graders; yet, there were meaningful differences in some sub-dimensions.

Keleğ et al. (2010), They conducted a research to determine the effect and permanence of the project called "Nature Education in Ihlara Valley (Aksaray) on environmental awareness, environmental attitude, opinion and behavior. At the end of the research, they confirmed that the nature education program have effects on the environmental awareness, attitude and behaviors of the individuals, and it its permanence.

Ahmet (2012), "The Study Of Attitude Of High School Students In Northern Cyprus For Environmental Education And Water Conservation". The purpose of this research is to determine the level of awareness of water conservation and environmental education of high school students in Northern Cyprus by means of a questionnaire and to emphasise the importance of education in order to develop environmental awareness. The population of this reseases involves 470 highschool students studying in Northern Cyprus. 295 female and 175 male students have participated in this questionnaire. The quantitaive research method used in this study allows the students enough time to answer the questionnaire. The data is collected by a questionnaire prepared in accordance with the literature information.

The results have been analyzed by SPSS software. Environmental issues have become an important issue within the past 20 years. In order to determine the gender variance of this consciousness and awareness, the unrelated t-test was used. The variance according to the education level of parents, nationality and region is detected by Anova, Scheffe and Post Hoc tests. Moreover, in order to analyze the attitudes of the students regarding the environmental education adequecy, frequencies and percentages were used. The validthy of the environmental behavior scale is found to be at a rate of 0.87 with respect to Cronbach Alfa. The findings obtained from this study show that the students generally have a high level awareness of environmental education and water conservation; However this awaraness is not reflected at a behavioral level.

2.6.Researches About The Environment,Environmental Education, Environmental Awerness And Water Outside

Pooley and O'Connor (2000), They applied the environmental attitude scale they developed in their research called "Environmental Education and Attitudes" on 92 people between the ages 18-55 with different education backgrounds, to whom they gave lessons beforehand. They compared the data and the lesson syllabus. They found that the concept of attitude and behaviors was ignored in the syllabus; instead, there was mainly the environmental information. The research focused on the beliefs, feelings and the behaviors of the participants towards the environment. According to the data and the results of the study, the aim in the environmental education shouldn't be about just giving information; the attitude and behavior context of the education programs should be given priority in order to raise environment friendly people.

Uljas (2001), He researched the effects of social identity and values on the environmental attitudes and behaviors in his study called "The Effect of The Social Identity on The Environmental Attitudes and Behaviors". The scale, in which there are significations related to local and global problems, was performed on 416 people. In the conclusion of the research, it was confirmed that acceptance of the values of the group which the individual feels he belong in could direct his environmental perception, attitudes and behaviors; the social identity could have effect not only on the individual's interest and attitudes towards the environmental issues but also his attitudes towards his (Şama, 2003).

Kalibourno et al. (2001), He conducted a research called "Analyzing The Dominant Social Paradigm in The Environmental Attitudes of University Students in Regard To The Cultures". The research was conducted on 386 students from the universities of USA, UK and Denmark. The results of the research and the suggestions are: There is a meaningful relation between economical, political, technological dimensions of the dominant social paradigm and the students' environmental attitudes. The higher the dominant social paradigm points are, the lower the perception related to the environmental issues is. The environmental attitude points change from country to country. This is because every country a the different socio-cultural structure.

Legault and Pelletier (2002), They analyzed the change in attitudes, motivations and behaviors of Canadian students towards ecology after performing an 8-month long environmental education program; and they also analyzed the possible effects on developing the changes in attitudes, motivations and behaviors of their families towards ecological situations. At the end of the research, no any meaningful difference in ecological attitudes of the students was found , and the effects of the research on the students and their families were found quite weak.

Zhao et al. (2003), Ecological and environmental water requirement has been one of the research foci of eco-hydrology in the world. Research on ecological and environmental water requirement of river systems has been specially emphasized abroad. In some researches, minimum or optimal flow has been determined according to relations between the protected fishes and physical and flow regimes of rivers using hydrological or hydraulic methods. Since 1990, ecological water requirement of the river system has been estimated on the concept of ecologically acceptable flow regimes to maintain the integrity of ecosystem. In China, the research on ecological water requirement and relative concepts began to be recognized. Since 1998, the concepts have been developed and put into application though it is still far to go. For further research, to develop the theories of ecological water requirement estimation and the transitions mechanism between different temporal-spatial scales of ecological water requirement utilizing isotope and RS technique are important research fields.

Semerjian et al. (2004), They emphasized the necessity and the benefits of interdisciplinary approach in environmental engineering and environmental science with their research. In the research carried out in Beirut American University, they prepared environmental science program inter-faculties, and analyzed the attitudes of the students in this new curriculum. As a result, it was stated that the environmental engineers and the scientists need help, in social and political subjects, about determining the environmental policy related to their own majors.

Vladimir (2009), This paper presents the first attempt to estimate the volume of water required for the maintenance of freshwater-dependent ecosystems at the global scale. This total environmental water requirement consists of ecologically relevant lowflow and high-flow components and depends upon the objective of environmental water management. Both components are related to river flow variability and estimated by conceptual rules from discharge time series simulated by the global hydrology model. A water stress indicator is further defined, which shows what proportion of the utilizable water in world river basins is currently withdrawn for direct human use and where this use is in conflict with environmental water requirements. The paper presents an estimate of environmental water requirements for 128 major river basins and drainage regions of the world. It is shown that approximately 20 to 50 percent of the mean annual river flow in different basins needs to be allocated to freshwater-dependent ecosystems to maintain them in fair conditions. This is unlikely to be possible in many developing countries in Asia and North Africa, in parts of Australia, North America, and Europe, where current total direct water withdrawals already tap into the estimated environmental water requirements. Over 1.4 billion people currently live in river basins with high environmental water stress. This number will increase as water withdrawals grow and if environmental water allocations remain beyond the common practice in river basin management. This paper suggests that estimates of environmental water requirements should be the integral part of global water assessments and projections of global food production

Aslanova (2012), In a similar study, the pupose of this investigation is to define the level of knowledge of students of Baku State University, Biology Fakulty on environmental education. The results show that knowledge levels of Baku State University' Students on environmental problems (58,25%) is higher than Azerbaijani students (52,88%) studying at Near East University. While verifying attitude' levels on environmental awarness, attidudes of Azerbaijani students studying at NEU were 3,34% (69,2%), but attitudes of Baku State University Students were 3,34% (66,8). Although there are significent difference among two groups from statistical point of view, thus difference is not higher than environmental knowlede. Significeant difference among two groups was observed in 38 questions from 63 questions on environmental knowledge from statistical point of view.

CHAPTER III

METHODS

In this section of the study, there are explainations about model, population and sample, data collection tool of the research themed "Comparision of Environmental Attitude and Awareness Levels of the students from TRNC, Libya and Turkey about the Water", practicing the data collecting tool and analyzing the data.

3.1.Research Model

In the research called "Comparision of Environmental Attitude and Awareness Levels of the students from TRNC, Libya and Turkey about Water", "relational screening model" was used. In the relational screening model, it is aimed at determining the existence or degree of covariance between two or more parameters (Karasar, 2009). This kind of researches could present an opinion about a cause-effect relationship to the researchers; yet, they can never been interpreted as a cause-effect relationship. Correlation researches are important research types which are effective on disclosing the relations between the parameters and determining the levels of these relations, and which provide essential clues to conduct high level researches related to these relations (Büyüköztürk and others, 2008).

3.2. Universities And Sample

The population of this research consists of 300 university students from TRNC, Libya and Turkey; taking education in 2014-2015 academic year in TRNC, Libya and Turkey.

3.3.Data CollectionTool

In this research, the "Survey Purpose Form" and the "Environmental Attitude Scale" was used as the data collection tool.

3.4. Scoring Scale Classification Of The Substance

The levels of knowledge of the university students participating in this research about the environmental education were revealed and interpreted in regards to the survey questions.

3.5.Data Analysis

The data obtained from the surveys were analyzed in silico by using the computer program SPSS 20.0.While detecting if there was any difference in the environmental education and water usage awareness of the university students participating in the research from TRNC, Libya and Turkey in regards to their sexes, unrelated samples t-test was practised; and while detecting analysing the difference in their environmental education and water usage awareness in regards to their educational backgrounds, ANOVA, Cronbach's Alpha, Split-Half, Post Hoc test was practised.

CHAPTER IV ANALYSIS AND FINDINGS

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This chapter is divided into three sections. The first characteristics of the respondents demographic section is examined. The second section provides a report on the characteristics of the measurement scales (Cronbrachs Alpha Test) used in the study. The final section then, discusses the analysis of the research hypotheses.

4.1. Respondents' Characteristics

The profile of the respondents with respect to their gender, nationality, Population of the area where they live, education status of there mother, education status of there father and family is shown in Tables1.

Table 1 : Frequency And Percentage For Gender.

; ;	Gender	Frequency	Percentage	-
	Male	134	44.7	
<u></u>	Female	166	55.3	
	Total	300	100.0	



Figure 1:Percentage For Gender.

Table 1 show that most of the respondents in the gender group are (44.7%) percent male and (55.3%) are female respondents (figure 1 shows that).

Nationality	Frequency	Percentage
Turkey	100	33.3
Turkish Republic Northern Of Cyprus	100	33.3
Libya	100	33.3
Total	300	100.0

Table 2: Frequency And Percentage Of Nationality.

Figure 2: Percentage Of Nationality.



Table 2 shows that (33.3%) per cent of the respondents are TR (Turkish), TRNC (Turkish Cypriots) and LIB (Libyans).

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Population of the area where t live	hey Frequency	Percentage
Less than 500	8	2.7
Between 500 – 2000	18	6.0
Between 2000 - 5000	44	14.7
Between 5000 - 10000	23	7.7
Between 10000 – 20000	42	14.0
Between 20000 – 50000	78	26.0
More than 50000	87	29.0
Total	300	100.0



Figure 3: Percentage Of Area Where They Live.

Table 3 shows that the percentage of the population of the area where they live" highest (29.0 %) more than 50000, and the lowest percentage is (6.0%) between 500-2000. The table above shows that 87 student lives in a area with more than 50,000 pepole. This means most of the students do not like to stay in a low populated area.

Education status of their mother	Frequency	Percentage
Elementary	47	15.7
Primary School	39	13.0
Secondary School	46	15.3
High School	98	32.7
University	56	18.7
Master-Doctorate	14	4.7
Total	300	100.0

Table 4: Frequency And Percentage Of Education Status Of Their Mothers.



Figure 4: Percentage Of The Education Status Of Their Mothers.

Table 4 shows that the percentage of the "Education status of their mothers" highest (32.7%) for high school, and the lowest percentage is (4.7%) will master-or doctorate dagrees. Most mothers are educated, 98 in the high school, and 56 in universities and 14 master and doctorate dagrees. There is a positive relationship between the level of mother education and improving the water environment. This is because education concerns the protection of all aspects of the environment

Education status of their father	Frequency	Percentage
Elementary	41	13.7
Primary School	26	8.7
Secondary School	41	13.7
High School	73	24.3
University	96	32.0
Master-Doctorate	23	7.7
Total	300	100.0

Table 5: Frequency And Percentage Of Education Status Of Their Fathers



Figure 5: Percentage Of The Education Status Of Their Fathers.

Table 5 shows that the percentage of the Education status of their fathers is the highest (32.0%) from university, and the lowest percentage is (7.7%) with master or doctorate.

Most fathers are educated, 96 in universities and 23 with master and doctorate dagrees. There is a positive relationship between the level of father education and improving the water environment. This is because the education concern in protect the protection of all aspects of the environment.

What is the familyis is monthly incom? And who are involved ?	Frequency	Percentage	
Less than 1000 TL	4	1.3	
Between 1000 - 2000 TL	60	20.0	
Between 2000 - 3000 TL	107	35.7	
Between 3000 - 4000 TL	43	14.3	
More than 4000 TL	86	28.7	
Total	300	100.0	

 Table 6: Frequency And Percentage Of Monthliy Income Of Their Familyis?And

 The Members Is Involved ?



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Table 6 shows that the percentage of "incomes" is the highest (35.7%) for between 2000-3000 TL, and the lowest percentage is (1.3%) less than 1000 TL. This show that, the family income is around 2000-3000 TL. Which seems reasonalde for studants.

Table '	7:	Frequency	And	Percentage	Of	The	Receivers	Of	Environment	Lessons
Before	?									

Receivers of environment lesson	Frequency	Percentage		
before?				
Yes	125	41.7		
No	175	58.3		
Total	300	100.0		





Table 7 show that the percentage for "Have you received environment lesson before" highest reached (58.3 %) for (No), but the lowest percentage reached (41.7%) for Yes.

Most of students did not receive a environment lesson, enhance, the teachers should be focused on this step and provide lessons, programs, and activities that concern in environment.

Table	8:	Frequency	and	percentage	of	active	joineis	in	environmental	groups
(found	atio	ons, associat	ions,	voluntary or	gai	nization	s etc.)			

Active joineis in environmental groups (foundations, associations, voluntary organizations etc.)	Frequency	percentage	
Yes	40	13.3	
No	260	86.7	
Total	300	100.0	

Table 8 shows that the percentage of active joiners in any environmental groups (foundations, associations, voluntary organizations and etc.) to work" highest reached (86.7%) as (No), and the lowest percentage is (13.3%) as Yes.

The government should establish some programs that can help people to join in environmental groups. Not many pepole actively join in environmental groups and this may lead to many problems in water issues and the environment .

4.2. Psychometric Properties and Measuring Instruments4.2.1. Cronbach's Coefficient Alpha Reliability Test

A total of 12 items hypothesized to represent ten scales were developed to be used in the present study. The scales are based on a thorough review of relevant theoretical and empirical literature, which provides some evidence of their content validity. This section describes the selection of items, and the evaluation of the reliability and validity of these measurement scales. In this study, the reliability of scales was measured by using Cronbach's coefficient alpha based on internal consistency of the items in each scale. The Acceptable and unacceptable levels of the Cronbach's Alpha coefficient are presented in the next table.

Alpha Coefficient &Split-half	Implied Reliability	
Below .60	Unacceptable	
Between .60 and .65	Undesirable	
Between .65 and .70	Minimally acceptable	
Between .70 and .80	Respectable	
Between .80 and .90	Very good	

Table 9: Acceptable And Unacceptable Levels Of The Cronbach's' AlphaCoefficient & Split-half.

Besides Nunnally's (1978) guideline, scale reliability of 0.70 and above is preferred. Nunnally (1978) also suggests that items that have less than 0.30 values to total correlation could be deleted to improve the reliability of the scale.

The results of this study shows that the value of Cronbach's coefficient alpha for scales are different in the values according to analysis data. In this study, we computed Cronbach's coefficient alpha for the scales before data screen and after data screen.

Table 10: The Stability Of The Instrument (*Cronbach's Alpha, Split-Half*) For The Variables Of The Study.

Cronbach's Alpha	Split-Half
0.75	0.73

Table (10) presents Cronbach's coefficient alpha for the scales. Cronbach's coefficient alpha equal to (0.75), within the acceptable range.

4.2. This Part Including The Result Of Study Depend On It's Questions.

Research Question 1: The difference between university students from Libya, Cyprus and Turkey in awareness raising of the environment around the water?

The answer to this queation is shows in mean.Sta.Deviation descriptive statistics (Table 11).

Table 11(a) :Mean And Standard Deviation For Items

No.	Items	Mean	S.d
1	How concerned are you about the quality of your local water environment?	3.63	0.80
2	How concerned are you about water pollution?	3.64	0.68
3	The Water Framework Directive aims to improve the "ecological condition" of water bodies across this area. This is a measure of both water quality and how good the rivers and canals are for wildlife. How would you assess the ecological condition?	2.95	1.08
4	Should the regulations to control water pollution be more strict, less strict, or about as strict as they are now?	3.73	0.89
5	Is the Environment Agency spending too much money trying to improve the water environment, too little money or about the right amount of money?	2.74	1.34
6	Is improving the local water environment more important than improving the local economy, less important than improving the local economy, or about as important as improving the local economy?	2.82	1.38
7	Should the government spend more money to improve the water environment, less money to improve the water environment, or about the same amount of money to improve the water environment?	3.89	1.05
8	How willing are you to change your lifestyle to reduce the damage you cause to water environment?	3.44	1.08
9	Is The business community interested in protecting water?	3.50	0.91
10	To conserve water, elected officials should pass ordinances that limit the number of single family homes that can be built each year	3.42	0.97
11	Elected officials should establish a public information office to disseminate information and educate citizens about water conservation	3.03	1.13
12	How do you feel about the formation of a local agency to control and manage water assets?	3.65	1.01
	Total	3.37	0.42

Table (11) shows that mean range between (2.74-3.89), is the highest mean for "Should the government spend more money to improve water environment, less money to improve water environment, or about the same amount of money to improve the water

environment?, and the lowest mean is for "Is the Environment Agency spending too much money trying to improve water environment, too little money, or about the right amount of money" (3.06). The overall mean for environment around water Reached (3.37), This shows the average level of awareness of the environment. The government should support the people to increas the level of awareness towards the environment of water. This means the government play a critical role in improving water environment through establishing the projects that concern the improvement of water environment.

Mean Score	Interpretation	
1.00 -1.80	Strongly disagree	
1.81 - 2.60	Disagree	
2.61 - 3.40	Moderate agree	
3.41 - 4.20	Agree	
4.21 - 5.00	Strongly agree	

Table 11 (b): Mean Score

Most of the means seem between 3.40 to 4.20 which means that most of the answers agree on the issue. There is only are moderate orgreement?

Research question2: The difference between male and female in raising awareness of environment of the water ?

The answer to this question is show in Mann-Whitney Test table (12a-12b)

Table 12(a): Result Of Mann-Whitney Test To Awareness Of Environment Due To Gender (n=300)

	Gender	Ν	Mean Rank	Sum of Rank
Raising awereness of _	Male	134	148.41	19886.50
environment of the water	Female	166	152.19	25263.50
Total			300	

Table 12 (b): Test Statistics (a/b)

	Raising awereness of environment of the water
Mann-Whitney U	10841.500
Wilcoxon W	19886.500
Z	0376
Asymp.Sig.(2-tailed)	0.707

a: Grouping Variable: Gender

Table 12 shows that, value of awareness of the environment due to gender reached to (-0.376), by Sig. (0.707). This indicates that there are no significant differences due gender in raising awareness of environment of water. The analysis indicated that there is no high differences between the awareness by males and females towards in water issues.

The Ranks table is the first table that provides information regarding the output of the actual Mann-Whitney U test. It shows the mean rank and the sum of ranks for the two groups tested (i.e., the exercise and diet groups)

Mean rank represents the highest and lowest. In the table above the highest percentage is 152, 19 for the females, and lowest is for the males (148. 41). That means the females more aware of the environment of water. Table 12(b) the Sig is 0.707 so there is no significant differences concerning gender in raising awareness of environment of the water.

Research question3: What is the impact of the family's monthly income on students in the culture to do with the environment of the water ?

To answer this question Kruskal-Wallis Test was applied,

Table 13(a): Result Of (Kruskal-Wallis	l est)	10 Awareness	Of Environment	Due	10
Monthly Income (n=300)					

	What is your income?	Ν	Mean Rank
	Less than 1000 TL	4	160.50
- Raising awereness of _	Between 1000-2000 TL	60	140.29
environment of water	Between 2000-3000 TL	107	143.31
	Between 3000-4000 TL	43	198.07
	More than 4000 TL	88	142.32
	Fotal		300

Table 13 (b): Test Statistics (a/b)

	Raising awereness of environment of water.
Chi-Square	15.386
df	4
Asymp.Sig.	0.004

a. Kruskal-Wallis Test

b. Grouping Variable: What Is Your Family Monthly Income? Who Are Involved?

Table 13 shows that value for awareness of environment with monthly income reached (15.386), by Sig. (0.04). This indiicats that there are significant differences due monthly income, in order to differences favor of category monthly income (Between 3000 - 4000 TL).

There is a positive relationship between monthly income and the level of awareness towards the environment. When monthly income provides a high quality life the awareness towards the element high.

The mean rank in table 13 shows the income between 3000-4000 and it is the highest mean rank. Table b shows is significant differences due to monthly income with 0.04.

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Research question 4 (1): What is the impact of the educational level of the mother and father on the student and does it affect the culture and environmental awareness of water ?

To answer this question (Kruskal-Wallis Test) was applied. Table14 (a-b)

	Education Status	Ν	Mean Rank
	Elementary	47	182.34
	Primary School	39	159.92
Raising awereness of — environment of the	Secondary School	46	146.16
water	High School	98	142.14
	University	56	133.01
	Master-Doctorate	14	160.07
T	otal		300

Table 14 (a): Result Of (Kruskal-Wallis Test) Of Awareness Of Environment DueTo Educational Level Of The Mothers (n=300).

Table 14 shows that, Chi-Square.value for the awareness of the environment with educational level of the mother is (10.312), by Sig. (0.06). This indicates there is no significant differences due to educational level of the mother.

Table 14 (a	a): Test	Statistics ((a/b))
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Raising awereness of water environment.		
Chi-Square	10.312	
df	5	
Asymp.Sig.	0.067	

a. Kruskal-Wallis Test

b. Grouping Variable: Education status of your mothers.

The level of education in the family by father and mother helped in increasing the level of awareness towards the environment. Table 14(a) shows that the highest mean rank is elementary (182.34). Table b shows no significant differences due to educational level of the mother (0.06).

Question 4 (2): What is the impact of the educational level of the mother and father on the student and does it effect the culture and environmental awareness of water ?

To answer this question (Kruskal-Wallis Test) was applied Table15(a-b).

Table15 (a): Result Of (Kruskal-Wallis Test) To Awareness Of Environment Due To Educational Level Of The Fathers (n=300).

	Education Status	Ν	Mean Rank
Raising awereness of environment of the water	Elementary	41	166.85
	Primary School	26	194.69
	Secondary School	41	149.71
	High School	73	149.97
	University	96	135.51
	Master-Doctorate	23	137.04
Total		300	

Table 15 shows that, Chi-Square.value for the awareness of environment with educational level of the father reached (11.685), by Sig. (0.05). This indicates that there is no significant differences due to educational level of the father.

	Raising awereness of the environment of the
	water.
Chi-Square	11.685
df	5
Asymp.Sig.	0.059

Table 15(b): Test Statistics (a/b)

a. Kruskal-Wallis Test

b. Grouping Variable: Education status of your father.

The level of education by the family such as father and mother helped in increasing the level of awareness towards the environment.

Mean rank in the table 15 a is Primary School with the percentage (%194.69). And in table 15 b there is no significant differences due to educational level of the mother (0.05).

Question5: What is the difference between recruits students in associations or institutions to cultural environment?

To answer this question (Mann-Whitney) Testwas applied. Table16 (a b).

Table 16 (a): Result Of (Mann-Whitney) Test Of Awareness Of The Environment
By Recruits Students (n=300).

	Have you recieved?	N	Mean Rank	Sum of Rank
Raising awereness of environment of the water	Yes	125	145.58	18195.00
	No	175	154.03	26955.00
Total			300	

Table 16 (b): Test Statistics (a/b)

	Raising awereness of the environment of water
Mann-Whitney U	10320.000
Wilcoxon W	18195.000
Z	-836
Asymp.Sig.(2-tailed)	0.403

a. Grouping Variable: Have you received environment of lessons before?

Table (16) shows that, value of awareness of environment by recruits students is (-0.836), by Sig. (0.403). This indicates that is no significant differences among recruits students in raising awareness of the environment of water.

There is a high awareness by the students to protect the environment. The environmental crisis improved the level of the weaknesses towards the environment.

In the table 16 we can see that mean rank is the highest with the answer (No) (%154.03). Table (b) shows no significant differences among recruits students in raising awareness of the environment of water (Sig.%0.403).

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CHAPTER IV FINDINGS

In this section, the results the findings and interpretations, discussions about this results and the suggestions developed will be mentioned. The results and the suggestions are explained below in accordance with the research findings.

5.1. The results of The Research

In this research, "Survey Purpose Form" was practised in order to have an idea about the students' awarenss of the environment. Students' answers were analyzed by using SPSS 20.0. The findings show the awareness levels of university students' related to the environmental education.

This research supports the development of directed awareness information focused on improving the current level of understanding of sustainable shower, clothes washing, irrigation and tap use behaviours. Such targeted programs will result in significant reductions in water consumption within residential households. In my conclusion I braced on a search for master Millock, K. and Nauges, C. (2010), it was about environmental attitudes and policy Environmental and Resource Economics. Awareness of water consumption was found to be limited, with just over half of participants identifying as being conscious of the amount of water they consume. Many were found to have favourable attitudes to household water conservation,yet this attitudinal enthusiasm was translated only to a modest reduction in water consumption. Many also declared to using water saving practices. However, participants were more likely to engage in simple actions such as stopping dripping taps than for example, reusing bathwater. Furthermore, the favourable attitude and water saving intentions did not reflect the adoption of water efficient appliances. Less than half of all participants started that they do not own any such appliance.

In table 11 in the overall meaning of environment around the water is (3.37). This shows the average level of awareness of environment. The government should support people to increase the level of awareness towards the environment of water, by taking a cruciol role in improving water environment through establishing the projects that concern improving the water environment. In my conclusion I also braced mysilf to a search for master by Bilir (2012), about environmental awareness and education of water, where the results were comparable to my own conclusions. While a favourable attitude to water conservation does not always translate to water saving behaviours, the fact that so many are in favour of water conservation provides much opportunity for future household water management strategies. In addition to the installation of water meters and increased water prices, participants highlight that increasing user knowledge of water issues (e.g. the consequences of wasting water, water consumption figures) as well as social marketing campaigns (e.g. providing information on how water can be saved in the house, communicating information about the quality and performance of water efficient appliances) would help encourage water saving behavioural change.

In table 12 Mean rank represents the highest and the lowest percentages. In the highest percentage is (152), for females, and the lowest for the males is (148). That means the girls are more aware of the environment of water.

Table 13, indicates that there are significant differences due to monthly income, (between 3000-4000 TL). There is a positive relationship between the monthly income and the level of awareness towards the environment. When monthly income provides a high quality life the awareness towards the element is higher.

The level of education represented by the family there parents helped in increasing the level of awareness towards the environment is in table 14 and 15.

In table 16, there is high awareness by the students to protect the environment. The environmental crisis improved the level of the weaknesses towards the environment. We can see that mean rank is the highest with the answer of (No) (%154.03). There is no significant differences among recruits students in raising awareness of environment of water (Sig% 0.403).

5.2. Recommendations

• It should be provided that the environmental and water-related education should be given not only in universities but also in each school starting with the kindergartens; the public should be educated about water usage through the media; the social water awareness should be created. Even, the education models should be taken as examples from the developed countries studying on this point; and the knowledge should be shared by establishing common councils if necessary.

- The practical projects prepared by the students during university should be focused on. For instance; projects could be prepared in order to search the amount of water used in houses in a day; to encourage the students to make water budget in their homes by brainstroming; to search the water pollution issue; to show scarcity of water resources and how important water is.
- Education campaign programs should be developed to spread the environmental education which is the biggest agent on bringing environmental awareness to all parts of the society. Particularly, spreading the environmental education through mass media should be given importance. B2B collaboration should be performed in order to give the environmental education through TV, radio programs and the press. Within this scope, a center should be created by associating with the universities in order to prepare educational films, documentaries and materials to be used both in schools and in the press.
- Because of the fact that the subject "environment" is an interdisciplinary field, it could play the role of catalyst in realizing the general objectives of the education. In other words, increasing the awareness of the environmental education and water shouldn't be the subject of just one lesson.
- Because universites are the foundations giving education in modern level, and because a modern education can help the individuals gain awareness of loving and protecting the environment, elective environmental courses should be given to the people who take university education in majors different from the environmental science and the environmental engineering in order to inform them about environment of subjects.
- The term, "Recycling" means making the recyclable waste products, which cannot be used anymore, raw materials again by using various recycling methods. When the consumed product is recycled, the necessity of raw materials decreases.

Thus, the increasing degeneration and damage to nature parallel with the population growth are prevented.

- Water treatment plants should be constructed for treating the waste water.
- Although it is confirmed that the students' knowledge levels on the environment and water usage are not that low, it is clearly seen that there is not essential care on it. In order to turn the knowledge into practice, it is important that all the state institutions and organizations, business world and non-governmental organizations -particularly, the National Education Ministry should develop responsibility projects and all people should participate in these projects.
- To support official efforts in the field of protection of water resources, everyone can participate in water conservation as a campaign "water saving tools" adopted by the Environment Agency to support both parents, mosques, schools and commercial and government buildings, where the technicians are accredited to visit every home and place of work for the installation of water-saving tools campaigns the taps. Organize these small items that have to be installed for free flow of water, and reduce water consumption.
- Rationalization is intended to optimize the use of water that leads to benefit from the least amount and the cheapest possible financial costs in all areas of activity. When you talk about the rationalization of water consumption the main goal is to educate the citizens of the importance of water as the basis of life and the basic element in all industrial, agricultural and tourism fields. And the call for rationalization not intended deprivation of the use of water as much as intended to work on changing patterns and consumer habits so that a daily consumption behavior of the citizen or the family to show restraint and balance and not wasteful.

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ATTACHMENTS

Appendix-1:

SURVEY PURPOSE FORM

The scale you received to answer will be used in a research thesis titled "Determining The Levels of The University Students from TRNC, Libya and Turkey about Environmental Attitude and Awareness Related to Water". It is important to get a piece of your mind in order to make the research reliable. Thank you for accepting to answer the scale and for sparing your time. I wish you great success in your studies .

Best Regards, Mawrad.S.Boaglel Near East University, Environmnetal Education and Management, Master student.

Appendix-2:

PERSONAL INFORMATION FORM

Dear Students,

Thank you for your participation This survey is related to a scientific study. As a result, you will not be given any grades. Therefor, please do not write your name. Please read the questions carefully and answer them sincerely. The survey should take no longer than 20 minutes to complete.

Mawrad.S.Boaglel

Master Student

Class:..... Age.:

 Faculty:

 Department:

 Gender:
 Female

 Male

 Nationality:
 TR

The population of the area where you live: Less than 500 \square Between 500-2,000 \square Between 2,000-5,000 \square Between 5,000-10,000 \square Between 10,000-20,000 \square Between 20,000-50,000 \square More than 50,000 \square

Education status of your mother: Education status of your father:

Elementary Primary School Secondary School High School University / Faculty Master / Doctorate Elementary 🗆 1 Primary School 🗆 2 Secondary School 🗔 3 High School 🗆 4 University / Faculty 🗆 5 Master / Doctorate 🗆 6

What is your familys monthly income ?Who are involved ?

Less than 1,000TL Between 3,000 -4,000TL More than 4,000 TL

Please tick the appropriate option in the following question:

1. Have you received any environment lessons before?

Yes 1

2.Do you actively joinin any environmental group's (foundations, associations, voluntary organizations and etc.)to work?

 $No\Box 2$

No ∐2

Yes 1 Name:....

Appendix-3:

The plan will identify the most important issues and actions that need to be addressed to improve the water environment (rivers, lakes and canals). We are particularly interested in local people's attitudes to local water environment and how it is protected Please let us have your thoughts by completing this brief survey.

1. How concerned are you about the quality of your local water environment?

- © Extremely concerned
- © Very concerned
- Moderately concerned
- Slightly concerned
- © Not concerned

2. How concerned are you about water pollution?

- Extremely concerned
- © Very concerned
- C Moderately concerned
- © Slightly concerned
- © Not concerned

3. The Water Framework Directive aims to improve the 'ecological condition' of water bodies across this area. This is a measure of both the water quality and how good the rivers and canals are for wildlife. How would you assess the ecological condition of your local water bodies?

Very good

- ^C Moderately good
- ^C Neither good nor bad
- Moderately bad
- C Very bad

4. Should the regulations to control water pollution be more strict, less strict, or about as strict as they are now?

Much more strict

C

C

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Slightly more strict

About as strict as they are now

Slightly less strict

Much less strict

5. Is the Environment Agency spending too much money trying to improve the water environment, too little money, or about the right amount of money?

[©] Much too much

© Slightly too much

C About the right amount

C Slightly too little

[©] Much too little

6. Is improving the local water environment more important than improving the local economy, less important than improving the local economy, or about as important as improving the local economy?

Much more important

[©] Slightly more important

About as important

^C Slightly less important

^C Much less important

7. Should the government spend more money to improve the water environment, less money to improve the water environment, or about the same amount of money to improve the water environment?

c c

 \mathcal{C}

Much more money

Slightly more money

About the same amount of money

Slightly less money

Much less money

8. How willing are you to change your lifestyle to reduce the damage you cause to the water environment?

- © Extremely willing
- Very willing
- Moderately willing
- Slightly willing
- Not willing

9. Is the business community is interested in protecting the water?

- Strongly Agree
- Agree
- © Neither Agree Not Disagree

C Disagree

Strongly Disagree

10 .To conserve water, elected officials should pass ordinances that limit the number of single family homes that can be built each year?.

C Strongly Agree

C Agree

Neither Agree not disagree

^C Disagree

Strongly Disagree

11.Elected officials should establish a public information office to disseminate information and educate citizens about water conservation?

Strongly Agree

Agree

C

C

C

 \mathbf{C}

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Neither Agree Not Disagree

Diseagree

Strongly Disagree

12. How do you feel about the formation of a local agency to control and manage the water assets?

- C Strongly Agree
- C Agree
- © Neither Agree Not Disagree
- C Disagree
- Strongly Disagree

CURRICULUM VITAE

My name is; Mawrad. S. BOAGLEL. I was born on 03.08.1987 in Libya in Derna city. In 2001 I started high school and of completed in 2005-2006. I attended university in 2006-2007 in the Faculty of Science, Biology Department. I obtaoted my bachelor's degree. I was able to get a job in the same year, where I trained in a medical laboratory the year before I graduated. I worked in the field of medical laboratories for four years, and in a medical clinic in the largest cement factory in North Africa, for 2 years .Then I decided to move from the medical laboratories of environmental sciences, where I had the opportunity to travel to the Republic of North Cyprus to receive a good education in this country. where my master's study began in (2014-2015) in the field of science and Environmental Education Management.