FOREIGN NATIONALS PERSPECTIVES ABOUT CLIMATE CHANGE IMPACTS ON THE ENVIRONMENT

PERSPECTIVAS EN NACIONALIDADES EXTRANJERAS SOBRE IMPACTOS DEL CAMBIO CLIMÁTICO Y MEDIO AMBIENTE



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Resumen
Este estudio tiene como objetivo analizar las perspectivas de los ciudadanos extranjeros sobre los impactos del cambio climático en el medio ambiente en Chipre. El método de muestreo estratificado intencional se utilizó para determinar el grupo de estudio. Los hallazgos de la investigación determinados a partir de esta investigación sugieren que los participantes tienen conocimiento sobre el cambio climático, la adaptación al cambio climático y las habilidades necesarias para reducir el cambio climático, así como la conciencia sobre los impactos del cambio climático en el medio ambiente, pero carecen de información básica sobre cómo reducir problemas ambientales.
Palabras clave: Contaminación ambiental, cambio climático, nacionalidades extranjeras, entrevistas, norte de Chipre.

Abstract
This study aims to analize the perspectives of foreign nationals about climate change impacts on the environment in Cyprus. The stratified purposeful sampling method was used to determine the study group. The research findings determined from this research suggest that the participants have knowledge about climate change, adaptation to climate change and the skills required to reduce climate change, as well as awareness on climate change impacts on the environment, but lack background information on how to reduce environmental problems.
Keywords: environmental pollution, climate change, foreign nationalities, interviews, North Cyprus.

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INTRODUCTION

Climate change, a prominent global issue in recent years, has emphasized the importance of public input on decisions with regard to human life, settlements and the determination of physical, economic and cultural limits. It is a fact that direct and indirect interference by society in the natural processes of the Earth affect, change and distort the existing patterns of climatic elements. Lately, as the impacts of global warming are being acknowledged, particularly in the developed countries, various precautions are being taken. Using recent technological developments, the misuse of natural energy sources such as wind, water, and underground resources is prevented, and with the indirect use of such energy sources, cost reductions, as well as labor and time savings have been achieved. However, this has only been beneficial on a country scale and has not been successful at reducing global warming caused by climatic changes. The increase of harmful effects on countries' economies, culture and the health of the societies, has urged governments to implemented changes in the planning approaches in order to minimize the impact of global warming (Kılıç and Erol, 2010).

Although climate change has been an ongoing issue throughout specific periods in world history, the change that has materialized in the last century is the most rapid ever recorded, and the human factor has never been so important. For the first time in world history, humans have begun to change the climate and are now facing the consequences. Many studies aim to reveal the influences of the built environment on the natural environment. On the other hand, if we implement environmentally sensitive planning efforts by taking into consideration the influences of cities on the natural environment, we will be able to reduce the risks of potential climate change. Due to uncontrolled growth, anthropogenic environmental problems have become increasingly apparent in recent centuries (Hunter, 2003).

This study aims to determine the views of the foreign nationals in North Cyprus on environmental problems caused by global climate change as well as their opinions on how to diminish and prevent those problems.

Accordingly, respondents were asked questions on the following aspects of climate change:

•Future disasters that may occur due to depletion of the ozone layer and nuclear disasters

•The growth in exhaust emissions caused by traffic and the increase in the use of bicycles

•Impacts of global warming on the environment

•Keeping up with the broadcast programs related to the environment on press, TV, radio and other media for creating a sustainable environment

METHODOLOGY

The interview method, one of the most frequently used methods in qualitative research to collect data, is effective in revealing points of view, experiences, feelings, and perceptions. Qualitative research deals with people's emotions, experiences, and thoughts. The researcher performs analysis based on this information. One of the essential features of a qualitative case study is that one or several cases are research in depth (Yıldırım & Şimşek, 2003).

Sample

A total of 175 people from different countries living in North Cyprus participated in this research. The aim was to reach all intended participants, and additional sampling was not required. The stratified purposeful sampling method was used to determine the study group. This method was chosen as it allows the determination and presentation of the traits of different countries and the possibility of making comparisons between them (Büyüköztürk et al., 2009).

The data were collected through the interview method, where a semi-structured interview technique was applied. In this technique, the researcher prepares the interview protocol in advance and plans the questions to be asked. A semi-structured interview form was used in the process. The manner in which the interview was conducted was specified by the researcher during the interview. It was noted that the participants gave more detailed answers towards the end of the interview, which was also observed in other studies (Türnüklü, 2000). The interviews were held between December 10 year and February 20 year, at the convenience of the participants. The interviews lasted approximately 45 minutes (Razavi et al, 2015).

DATA ANALYSIS

In this research, data analysis was performed by content analysis into specific concepts and themes and they were then arranged so that the reader could understand and interpret them. The 175 study participants were numbered as P1, P2, ... P175. The data obtained from the interviews in the form of answers to the questions were analyzed via four-stage content analysis (Yıldırım et al., 2003).

In the first stage, after the interviews, the data obtained from the participants were analyzed and separated into meaningful parts. These parts were named and coded. A code list was then formed as a critical list for examining and editing the data. The coding key and interview transcripts were read separately, and "consensus" and "difference of opinion" issues were discussed. For reliability calculations of the research, Miles and Huberman's (1994) proposed formula of

reliability was used and calculated as 94% on average. Results over 70% were considered reliable (Miles & Huberman, 1994). According to these criteria, the obtained results were considered reliable for the research.

In the second stage, the codes set in the encoding step were collected under specific categories and themes were established.

In the third stage, the opinions of the participants were explained in a language that could be understood by the reader and opinions were presented to the reader in quotes. Footnotes were used to determine which interview notes belonged to each participant and interview notes were given in quotation marks.

In the fourth stage, the findings described and presented in detail were interpreted and the researcher. Collected data were interpreted through the stages required by qualitative research and the results were presented (Jenaabadi & Khosropour, 2014).

RESULTS

DIMENSION I: FUTURE DISASTERS MAY OCCUR DUE TO THE DEPLETION OF THE OZONE LAYER AND NUCLEAR WARS

The thoughts of 175 participants were determined during the interviews. Regarding the question in the first extent, the thoughts of the participants were determined according to the rates and themes in Table 1.

Table 1. Participants' views about possible future disasters due to nuclear war and the depletion of the ozone layer

	Participants	
Themes	**Number of Participants**	**Percentage (%)**
Human impact	73	42%
Modern wars	58	33%
Ozone layer	44	25%
Total	**175**	**100%**

Source: Authors (2019).

The participants were asked whether climate change is likely to worsen in the future due to the increase in global warming and the thinning of the ozone layer. In response, 42% of them pointed to human origin reasons, 33% mentioned modern wars and 25% emphasized the thinning of the ozone layer.

One participant said the main influence which poses a threat to the ozone layer is gases emitted from factories, but also the wars, for example, World War I and II caused the destruction of many forests and the emission of many gases that impacted the ozone layer, as far as I know. Industrial wars are having a great

impact on the atmosphere and causing global warming and climate changes, which cause the warming of the atmosphere and also impact the ozone layer, which will affect future generations (Ayalew, 2017).

Another participant stated, In my opinion, modern wars are wars in the industry, which have a significant impact on forests and green areas converting them into a desert. This has a clear impact on the climate. Wars around the world, where the gases emitted from the conflict and chemicals such as sulfur and phosphorous, and radioactive substances affect the green areas, should be stopped so that the impact on the environment and the increase in carbon gases does not affect the ozone layer.

Another participant expressed their opinion by saying, the remnants of modern wars; in my opinion, large factories look rich and do not want to implement alternative solutions for emissions, which are known to affect the air and the entire ozone layer. It is known that gases emitted from factories have a very significant impact on the ozone layer and, in my personal opinion, are the largest remnants of wars. The gases affect a great proportion of the geothermal layers, and the alternative energy solutions to run these factories will affect the future inhabitants of the earth.

Another participant stressed, depleting the ozone layer that protects the population of the planet from the remnants of war and gases, emitted components spread in the air cause combustion of green land. Even more, lack of alternatives in the process of carbon dioxide exchange causes the warming of the earth and the expansion of the ozone layer.

DIMENSION II: REDUCING EXHAUST GASES IN TRAFFIC AND THE INCREASE IN THE USE OF BICYCLES.

175 participants expressed views about the question in dimension 11, as shown in Table 2.

Table 2. Participants' views about reducing exhaust gases in traffic and the increase in the use of bicycles.

	Participants	
Themes	**Number of Participants**	**Percentage (%)**
Reduce of public transport	101	58%
Use bicycle most of time	74	42%
Total	**175**	**100%**

Source: Authors (2019).

As an alternative to reducing exhaust gas in traffic, 52% of the participants suggested fewer cars on the road, and 42% suggested the use of bicycles instead.

One participant answers the first question by stating, cars and buses are the focus, manufacturers are the chosen culprits, but the people who buy and drive vehicles are really responsible for creating a better future for themselves and their children. The immediate challenge for vehicle users is not to replace existing vehicles with more fuel-efficient versions, but to reduce use and participate in a new vision of car-free living environments.

Other participant explained, the use of bicycles could reduce exhaust gases, but it is not an efficient means of transport, so reducing the emissions of gases from vehicles would help reduce exhaust gases. It is hard to convince the world that while using bicycles in the process of moving they are not aware that the vehicle exhausts pollution is one of the reasons noticeable in major cities and it has a direct impact on the atmosphere and also the surrounding environment. It goes without saying that the car exhaust and toxic gases due to fuel combustion and carbon monoxide, which has a direct impact on humans and which also causes respiratory illnesses.

One participant added, “I personally use a bicycle, but there is no solution to persuade the public that this is best way to get rid of the emissions of toxic gases from the exhaust that affects their health and also reduces the congestions on the roads”.

DIMENSION III: IMPACT OF GLOBAL WARMING ON THE ENVIRONMENT.

175 participants expressed views, as shown in Table 3, about the question in Dimension III.

Table 3. Participants' views about the impact of global warming on the environment

	Participants	
Themes	**Number of Participants**	**Percentage (%)**
Use recycle materials	88	50%
Minimize waste	87	50%
Total number and %	**175**	**100%**

Source: Authors (2019).

When asked for their views about the themes in Table 3, as can be noted in the table, 50% of the participants mentioned the effect of recycling and 50% stressed the need to decrease the amount of waste materials.

The first participant expressed views saying, we cannot avoid the production of waste. Plastic bags, paper, used things. And most of them are not quickly degradable. For example, some plastics need more than 500 years for degradation. And land filling is very dangerous because it may cause fires. This

year, 200 people in Voronezh were left homeless because their houses were destroyed by landfill fires. In fact, at first, the landfill self-combusted, then the fire spread onto the nearby trees and then the houses that were situated not far from the conflagration place. It was not a mistake. It is a term, and many eco-friendly companies use it when they want to show that their product is eco-friendly. We take care of the surrounding environment on a daily basis. Search on Google, and you will see more than 68 mil. think the environment here is the nature and natural resources, water, air, etc., so the surrounding environment is the nature around you and the people around you.

One participant answered the question saying, recycled materials so as to minimize waste, for example, including the accumulation of plastic materials. If all the materials that you purchase can be recycled and utilized here, we can reduce the accumulation of waste that causes environmental pollution. Certain substances cannot be decomposed, such as plastic materials, which affect organisms.

It is hard to recycle everything. Some companies have a monopoly on the process without any benefit of recycling, but just for the sake of earning money. Meanwhile, they seem to be unaware of the pollution and harm they cause for the future of the world. We save money and energy. Some countries burn waste in landfills, which cause the spread of polluted air" said.

DIMENSION IV: KEEPING UP WITH THE BROADCAST PROGRAMS RELATED TO THE ENVIRONMENT ON PRESS TV, RADIO AND OTHER MEDIA FOR CREATING A SUSTAINABLE ENVIRONMENT

175 participants expressed views about the question in Dimension 4. Their views are as in Table 4.

Table 4. Participant views about keeping up with the broadest programs related to the environment on press, TV, radio and other media for creating a sustainable environment

	Participants	
Themes	**Number of Participants**	**Percentage (%)**
Increase environmental awareness	85	49%
Give information about the environment on TV and radio	71	40%
Read news about the environment	19	11%
Total	**175**	**100%**

Source: Authors (2019).

A total of 49% of the participants expressed the opinion that priority should be to environmental awareness, 40% pointed to the essence of media programs dealing

with the environment, and 11% suggested that news about the environment is read.

I have two professions, one in the environmental field to increase environmental awareness and how to maintain them by propaganda and environmental awareness programs for future. It is nice there to make people aware of programs to raise awareness regarding how to preserve the environment and also to create quick and urgent solutions. It is well known that there is now special attention on the media. I have people, but we must develop a plan of environmental awareness and identify how to preserve it and also design educational programs and campaigns to promote environmental education.

One of the participants raised views saying the media must be intensive in order to preserve the environment and guiding signs on how to understand people's environmental awareness in order to enjoy life, to be healthy and free of natural disasters caused by global warming. Sessions and posters on the environment and how to maintain it, panel discussions in the media, such as shopping malls and parks to share and live in a clean environment". Lovely views in public places are also special environments on and how to preserve our planet in which we live and to reduce environmental pollution. Intensification of media programs on the environment to maintain and configure rules on buses and public transport means and also in the streets can be helpful because there are some people who are not interested in environmental awareness.

It is interesting that there are programs about the environment. A lot of people do not care about the environment. It is hoped that such people show interest in the environment through these programs, which can also educate people in environmental awareness so that they understand the problem well and try to improve the environment for the future. In my opinion, the environment is neglected because people are indifferent towards it. The media also neglects the environmental issues. There is little care about the polluters. In order to create a clean and safe environment, environmental education should be considered seriously, particularly on TV and newspapers as well as on the internet, which is the focal point of almost everybody. Funded ads can raise interest in the issue" explained.

CONCLUSIONS AND DISCUSION

When the findings of this research are examined, it is seen that most of the participants had a high level of concern about climate changes as a global problem. Some of them are skeptical about whether climate change is a real problem or if it is exaggerated. Concordantly, the literature also has some similar research studies (Poortinga et al. 2011; Eurobarometer, 2009; Whitmarsh, 2011). The findings indicate that the participants are well aware of a possible increase in global warming in the future and that disasters are likely to happen. They stressed

that the human factor is the main reason for global warming. In addition, the participants pointed to some possible diseases due to the depletion of the ozone layer through which the radiation leakage will destroy the nature and cause diseases among people. As a result, there will be a decrease in the average lifespan and life will be shorter.

In their study, Gündüz et al., (2015), Atlı & Uzun (2010) and Eroğlu (2009) examined the participants' views about this issue and determined that they commonly agreed that there would be a change in climate as a result of global warming and this would affect and destroy the nature, have adverse effects on human health and cause diseases because of rapid spread of organisms to wide areas. It can be seen that the findings in this study have many similarities with the findings of other research studies.

The participants expressed views about exhaust gases and suggested that there should be fewer cars on the roads and public transport should be preferred. They added that using bicycles should be considered more. All these precautions, they stressed, would diminish exhaust gases and resulting air pollution. Shepardson et al., (2009) and Atlı & Uzun (2010) reached similar findings in their studies in this field.

In response to the question regarding the sustainable environment, the participants expressed concern that programs in the media, on TV and press reflecting problems on this subject were inadequate in terms of making people aware of the environment.

It can be noted that the findings of this research strongly suggest that the participants know about climate change, adaptation to the change, and the skills required reduce the change. The participants also admitted that they lacked background information on how to reduce environmental problems.

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