

## Consciousness of Environment in Turkey

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**Abstract:** Environmental issue has attracted attentions as one of the most important issues of the last century. This problem is a phenomena that threat to sustainable life. Effective solution of this issue depends on conscious and awareness of people about environmental matters. The main purpose of this study is to determine the level of awareness and attitudes to environmental issues in Turkey. The analysis was made to see the effects of age, gender, education and revenue on the awareness and attitudes to environmental pollution. Data were collected from 7 regions and 25 cities via personal interview. Water, air, soil, image and general pollution are the criteria on which awareness and attitudes were evaluated in the study. Air and water pollutions appear more significant than the others. It is determined that the media is the best way of disseminating the information regarding environmental education more efficiently.

**Keywords:** Environmental issues, environmental conscious, Turkey.

### Introduction

Environment, they all live lives of continuing and their mutual interaction as physical, biological, social, economic and cultural surroundings are defined as. (Anonymous 2007). Lives to survive, the environment is necessary to have the appropriate conditions. Environment is bring together, such as chaos and balance of two elements opposite to each other, a perfect system. Impairment of this system leads to the emergence of environmental problems. Although many sources of this environmental problem, unfortunately, people is the most important one.

After the industrial revolution, environmental problems are directly or indirectly have increased with the technologic development. While, developing industry was leading to air and water pollution, intensive agriculture led to pollution of soil and food, urbanization led to soil, air, rivers and sea pollutions. The pollution brought many important issues. The environment which is living space of mankind has become threat for them more and more.

When pollution issues occurred, human noticed that have to be more sensitive to the environment. Then some methods has been identified for elimination of environmental pollution. The methods used for elimination of environmental pollution are high technological and quite expensive (İleri 1998). As for the solution of environmental problems of the society to be educated is both high-efficiency and low cost method. Environmental awareness is the most important step to solve environmental pollution problems. Individuals alone can have environmental awareness. However, this is not enough. For radical solutions, individual sensitivity must be converted into social sensitivity. Then sensitivities must be converted actions. Thus, the developed solutions can be more effective for environmental pollution (Cankurt et al. 2008).

If people have had environmental sensitivity long before, expensive methods would not have be needed. "Never, It is not too late" with the principle, thinking about the future, it will be necessary to begin work for social environmental sensitivity. In this context, the first step, should be to determine the current situation. We have two questions. "What is our level of social sensitivity for environment?" and "How can we move to this sensitivity?". Answers to the questions are the most important starting point of environmental solutions.

This study deals with the first stage of the solution model of environmental issues. In the resolution of a problem is very important to determine of the current situation. Thus, the source of the problem and solution methods can be determined. The second phase is to provide environmental education to society with appropriate training techniques for the purpose. Now then, environmental sensitivity and environmental awareness will be provided. Finally, environmental issues will be solved with society that has environmental awareness. (Fig. 1).



Figure 1. Stages of solving environmental problems

As known that society consists of individuals. If individual's environmental awareness is improved, the community's environmental awareness is improved. With reduce environmental pollution, if the environmental balance is right to establish their own facilities can renew itself again (Doğan 2003). Otherwise, the results may occur as natural structure and composition corruption and negatively affected people (Kızılaslan and Kızılaslan 2005).

The main objectives of this study;

- To reveal awareness and consciousness level of environmental pollution,
- To determine people behavior of the environmental pollution,
- To put forward to what they are doing in order to solve environmental issues,
- To examine that how we can improve the environmental consciousness,

In additional that try to find to cooperation with associations, foundations and corporations, the decision makers in state government for solving the environmental issues.

In the frame of the study, it was researched that individual consciousness and the level of consciousness into behavior taken account into water, air, soil, noise and general environmental pollution criteria (Fig. 2).

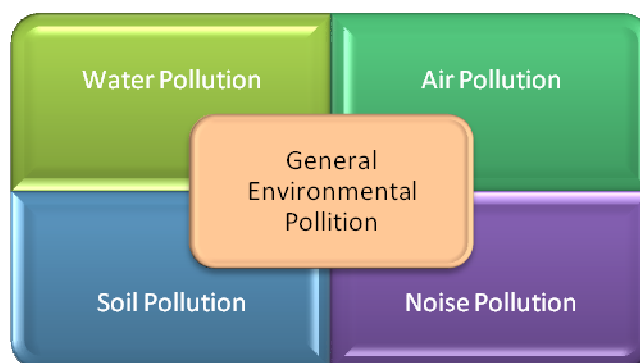


Figure 2. Environmental pollution criteria

In this context, it was try to find the answers to the following questions.

- What are the factors that lead to environmental pollution?
- What are responsible from the environmental pollution?
- What are we doing individually on environmental pollution?

## Material And Methods

The main material of this study was the original data that obtained from the survey in 25 urban centers (Table 1). At least two provinces of each region were chosen in order to represent all of Turkey. It is shown that frequency and percentages of the cities in Table 1.

City	Frequency	%	City	Frequency	%	City	Frequency	%
Adana	76	3.55	Eskişehir	107	5.00	Nevşehir	106	4.96
Ağrı	74	3.46	Gaziantep	51	2.39	Niğde	77	3.60
Ankara	144	6.74	İçel	63	2.95	Samsun	90	4.21
Antalya	44	2.06	İstanbul	92	4.30	Tekirdağ	114	5.33

Balıkesir	95	4.44	İzmir	445	20.81	Van	43	2.01
Bursa	63	2.95	Kayseri	47	2.20	Zonguldak	79	3.70
Denizli	44	2.06	Kocaeli	69	3.23	Batman	54	2.53
Diyarbakır	32	1.50	Konya	48	2.25			
Erzurum	39	1.82	Manisa	42	1.96	Toplam	2138	100.00

Table 1. Frequency and Percentages of the Cities

Questionnaire that prepared in relevant to the purpose was filled by volunteers. Questionnaire consists of socio-economic, yes-no, ranking and scale questions totally 58 questions. We used the five point likert scale in the survey form (1: strongly disagree, ..., 5: strongly agree).

Descriptive statistics, frequency distributions, percentage distributions, grouping methods are used for analysis of the data.

## Findings

Analysis of data for the individuals' awareness of environmental issues and behaviors in terms of environmental pollution has been done in terms of the survey participants' gender, age, education and revenue.

64.3% of the survey participants is men and their average age is 20.74 and 74.0% of them are under 20 years of age. 1/3 of the participants have monthly salary under 1000 YTL. High school graduates have the largest share by 43.6 %.( Table 2)

Variables	Groups	Freq.	%	Variables	Groups	Freq.	%
Age	<20 yaş	1427	74.0	Gender	Woman	716	35.7
	21-50 yaş	340	17.5		Man	1289	64.3
	50 < yaş	162	8.5	Salary	Student	794	41.2
Education	Primry school	605	35.0		<1000 TL	636	33.0
	High school	757	43.6		1001-5000 TL	362	18.8
	Vocational school	372	21.4		>5000 TL	137	7.1

Table 2. Descriptive statistics for socio-economic variables

For resolution of an issue, first it should be seen as a problem. From this perspective it should be useful to know whether the individuals are aware of environmental pollution or not and if they are the degree of the awareness. To do this, the participants were asked to evaluate environmental pollution generally then water, air and noise pollution respectively. This assessment and analysis has been made with five agreement scales (Table 3).

The survey participants answered to the questions "There is pollution in general" with an average of 4.14 and "There is air pollution" with 4.02 averages which means "I agree". "There are water, noise and soil pollutions" opinions have followed them. "There is soil pollution" question is answered an average of 3.40 meaning that they are not sure. Accordingly we can easily say that, the individuals in Turkey are aware of environmental pollution.

	Average
There is pollution in general	4.14
There is water pollution	3.74
There is air pollution	4.02
There is soil pollution	3.40
There is noise pollution	3.93

Table 3. Individuals' environmental pollution perceptions (5 Agreement Scales)

What are the factors that lead to environmental pollution?

Individuals' opinions are taken for what factors lead to the environmental pollution. In this context, agriculture and industry as sectors, coal as energy resource, nuclear energy and effects of petroleum were asked. The individuals were asked for their agreement scale on the factors that lead to pollution and the results are given on Table 4.

Factor	Average
Agriculture	2.32
Industry	4.06
Coal energy	3.84
Nuclear energy	3.54
Petroleum energy	3.60

Table 4. Factors that lead to environmental pollution (5 Agreement Scales)

According to the results, industry sector is much more polluter than agriculture sector. Individuals do not believe enough that energy resources lead to pollution. However, they stated that the energy resource of coal is more polluter than nuclear energy and petroleum energy. The survey participants expressed that the lowest polluter of the energy resources is nuclear energy. Accordingly, industry is the main factor of pollution. In addition, they pointed out that coal power causes environmental pollution.

What are responsible from the environmental pollution?

It will be useful to look at the environmental polluters from the individuals' eyes to find out the roadmap. For this purpose, individuals were asked to evaluate the major environmental polluters with five agreement scales (Table 5).

Polluter	Average
Unawareness	4.1
Remissness	4.1
The ignorance of industrial organization	4.1
Lack of education	4.0
The ignorance of governments	3.7
Lack of international action	3.6
Ignorance of advanced countries	3.5
Ignorance of politicians	3.5
Lack of newspapers and TV broadcasts	3.4

Table 5. Environmental polluters (5 Agreement Scales)

Individuals stressed that primary polluters of the environment are again they are. In this context, the individuals highlighted their own personal ignorance, carelessness, lack of education. Individuals blame that industrial organizations are as guilty as they are. It is a very interesting self-criticism that the individuals are blaming themselves.

It is obvious that the individuals that can make self-criticism will also easily contribute to the measurements to decrease pollution. The individuals accuse that industry organizations causing environmental pollution include the solution to who they are going to work with. Individuals are not sure that the media sector does well for their responsibilities. It points out that the media should improve their environmental awareness. However it is interesting that the individuals do not blame the newspapers and TV's like the other factors.

What are we doing individually on environmental pollution?

Until now, it is described that the individuals are aware of environmental pollution and the problems that it causes. However, how much of this awareness is reflected to the individuals' behavior has a special importance. The scale of positive response or efforts to protect the environment that will be developed is affected by how much of the knowledge is taken to the action.

Things to do against the environmental pollution can be analyzed in two groups as personal and social activities. Personal activity means working to eliminate the environmental problems individually. Social activities are the commitments to protect the environment by the institutions, foundations and clubs. Participation to the co-operative activities like this is a good indicator of environmental consciousness. This shows that the individuals realize that there is a problem and need to get rid of it.

Similarly, individuals who share similar thoughts to enter into joint action with other individuals, is a significant indicator that he/she is in charge of solving the environmental problems. For this purpose, participants were asked whether they have memberships to the institutions and foundations and their attendance to the environmental activities (Table 6).

Actions	%
I am a member of Environmental associations or foundations	23.2
I'm participating the environmental awareness activities	31.6
I'm participating the protest actions against polluting the environment	23.8
I'm participating the trash/waste collection activities.	33.2

Table 6. Rate of participants to the social activities to avoid environmental pollution (%)

It's seen that participation rate of the individuals to co-operative social activities against the environmental pollution is very low. The most important social activity against the environmental pollution is garbage / waste collection by 33%. This percentage is more than expected because some of the survey participants are students.

Personal behaviors of the individuals to protect the environment have shown on Table 7.

Actions	Average
I always throw the garbage/waste to the trashcan	4.0
I do not throw solid matter to the toilets	3.8
I use unleaded gasoline in my vehicle.	3.6
I do regular checks to exhaust	3.6
I do not use solid fuel that has too much smoke	3.6
I do not speak loudly at home, at work and in the streets.	3.5
I check my vehicles exhaust volume regularly.	3.4
Generally i listen to the music in low volume.	3.4
When buying deodorant and sprays, i take care of the ozone layer.	3.4
I avoid sounding the horn	3.4
I do not trade with street vendors with annoying noise.	3.4
I consider the amount of detergent while using.	3.3
I buy organic (ecological) products	3.3
When buying detergent, i care about its environmental side effects.	3.2
I try to reduce my consumption level.	3.2
I often participate in tree planting campaign.	3.2
I'm against the celebrations such as wedding, engagement etc. In the streets	3.1
I demand less nylon bag while shopping	3.1
I throw used batteries to special gathering center	3.0
I prefer to use the paper or cloth bags in shopping.	2.9
I sort the organic and inorganic garbages.	2.9
I never use deodorant, and spray	2.9
I never collect trash in plastic bags.	2.8

Table 7. Personal activities to avoid environment pollution (5 Agreement Scales)

The participants have expressed they agree to the question "I always throw the garbage/waste to the trashcan". This statement with an average of 4.0 has the highest value in the question. This result also means that not all of the garbage/wastes are thrown into the trashcan by the participants. It is engrossing that the statement although is one of the simplest actions to protect the environment, has only 4 in 5 agreement scales.

The participants agree to the statement "I do not throw solid matter to the toilets" with an average of 3.8. It shows that the individuals do not care enough to environment that can harm their own houses. Similarly it is engrossing that the participants are not sure on simple actions like "I throw used batteries to special gathering center" (3.0), "I demand less nylon bag while shopping" (3.1). The results show that things that can easily be done could not be done. The best example of this is "I avoid sounding the horn"(3.4) meaning that they are not sure.

If we consider the agreement scale average beyond 3.5 or higher, 6 out of 23 personal efforts can be selected as remarkable. Accordingly the individuals are extremely inadequate to avoid environmental pollution.

As much as the awareness of the environmental problems it is also very important that how much the individuals feel themselves adequate in solving these problems. Undoubtedly, even if the individual feels himself/herself adequate in this situation, it will not be possible to take action in case of inadequate personal and

social activities. In this context the participants were asked "Do you think that you are doing what you have to do avoid environmental pollution?" (Table 8)

	Average
I believe that I did what I have to do	3.45
I believe that I did what I have to do with co-operation.	3.29

Table 8. Individuals' satisfaction level to their activities on avoiding environmental pollution. (5 Scales)

As you see, individuals are not sure about their personal and social activities to avoid environmental pollution. This is a good result. If they felt their efforts sufficient, it would be extremely difficult to have positive results in increasing community awareness. However, the study shows it will be easy to get positive results for accommodating community awareness.

## Discussion And Results

In this Turkey-wide study, the participants strongly agreed to the statement "Generally there is environmental pollution." They expressed that air is more polluted than water. Individuals are not sure about soil pollution.

In a research about environmental pollution in Helsinki, Moscow and Talin with 13-18 age groups, the participants think that air and water pollution is the most significant threat to plant and animal species. (Hokka at all, 1999). In a research done with the medical students of Finland, it is found that most of the students are aware of environments; more than half of them indicate that water pollution is the biggest problem of all other environmental pollutions. (Kasma Ronkainen and Virokannas, 1996).

The participants have answered the question "Is there environmental pollution?" with an average of 4.20 from 5 agreement scales meaning "I agree". To the question "What are you doing to avoid the environmental pollution?" they answered with 3.30 meaning "I'm not sure". So there is a difference in what is being considered and what is being done. In other words, we are having difficulties in our environmental awareness to put in real life. This points that, the work for developing environmental consciousness has to focus on transforming our thoughts to action.

It is obvious that the people, living in Turkey are aware of environmental pollution. Individuals' self-criticism to their inadequate effort on avoiding environmental pollution will have positive effect on thought-action. Turkey has a vision that with small efforts, it can give social solutions to avoid the environmental problems. Under these circumstances it will not be wrong to say "The solution of environmental problems is not too far".

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