

SUSTAINABLE DEVELOPMENT AND ENVIRONMENT: A FIELD RESEARCH ON MUNICIPAL SERVICES ACROSS THE COUNTRY *

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Abstract

It is seen that humanity has always been intertwined with the environment since the beginning. Individuals have had to deal with agriculture in order to sustain their lives. However, as a result of the Industrial Revolution, environmental problems have emerged with the increase in industrialization and the damage caused to the environment by wars. Despite the fact that humanity has caused so much damage to the environment, most states do not bear any costs regarding protection measures. In 2015, the 2030 Sustainable Development Goals were determined by the United Nations in order to eliminate the damage done to the environment. States that are party to these goals have been obliged to take measures in line with these goals. A survey was conducted with 754 people across the country within the scope of the research. Questions were asked about the participants' sensitivity to environmental problems, the services provided by municipalities regarding the environment, and the importance of the environment in sustainable development. It was concluded that the participants were sensitive to environmental problems, municipal services were not at a sufficient level, and the environment was an undeniable factor in sustainable development.

Keywords: Sustainable Development, Environmental Problems, Municipalities, Individuals, Industrialization.

Jel Classification : F63, Q01

SÜRDÜRÜLEBİLİR KALKINMA VE ÇEVRE: ÜLKE GENELİNDE BELEDİYE HİZMETLERİNE YÖNELİK BİR SAHA ARAŞTIRMASI

Öz

İnsanlığın başlangıcından itibaren çevreyle hep iç içe konumda olduğu görülmektedir. Bireyler yaşamlarını idame ettirmeleri için tarımla uğraşmak zorunda kalmışlardır. Ancak Sanayi Devrimi sonucunda endüstrileşmenin artması ve savaşların çevreye vermiş olduğu zararlar birlikte çevre sorunları karşımıza çıkmaktadır. Çevreye insanoğlunun bu denli zarar vermesine rağmen çoğu devlet koruma önlemleri konusunda herhangi bir maliyete katlanmamaktadır. Çevreye verilen zararları yok etme adına Birleşmiş Milletler nezdinde 2015 yılında 2030

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Sürdürülebilir Kalkınma Hedefleri belirlenmiştir. Buna taraf olan devletlerin bu amaçlar doğrultusunda önlemler alma yükümlülüğü getirilmiştir. Araştırma kapsamında ülke genelinde 754 kişiye anket uygulaması gerçekleştirilmiştir. Katılımcıların çevre sorunlarına olan duyarlılığına, belediyelerin çevreye ilişkin yapmış oldukları hizmetlerine ve sürdürülebilir kalkınmada çevrenin önemi ilişkin sorular yöneltilmiştir. Katılımcıların çevre sorunlarına duyarlı olduğu, belediye hizmetlerin yeterli seviyede bulunmadığı ve sürdürülebilir kalkınmada çevrenin yadsınamaz bir faktör olduğu sonucuna varılmıştır.

Anahtar Kelimeler: Sürdürülebilir Kalkınma, Çevre Sorunları, Belediyeler, Bireyler, Endüstrileşme.

Jel Kodları : F63, Q01

INTRODUCTION

It is seen that the economic, social and environmental growth problems of countries have been active on the agenda from the past to the present. No matter how much growth countries achieve, they always move to a more advanced stage. This has caused humanity to cause more damage to the environment. In addition, individuals' actions without caring about the environment while producing have brought natural resources to the point of depletion. Countries now consider the resources they have collectively as wealth. Now, whichever state can produce a product at the cheapest price, other states buy that product from that country. While resources are being consumed, they are trying to be managed in a sustainable way by considering future generations. While countries used to consider growth as the main problem in the past, they took development as a basis. Development means that citizens from all walks of life living in the country can benefit from all opportunities in the same way. Development is encountered by countries at every stage. Ensuring that human life is of high quality has become the problem of all states. In the 20th century, the concept of sustainability, which includes the goal of leaving resources to future generations, began to be used instead of the concept of development. In fact, in 2015, the United Nations set the 2030 Sustainable Development Goals, to which 193 member countries are party. The states that are party to the agreement aim to fulfill their duties until 2030 and place the concept at the center of every aspect of our lives.

The study was conducted to determine the importance of the environment in sustainable development. First, domestic and foreign sources were scanned and survey questions were created to be used in field research (survey application). Then, a reliability test was conducted and a survey was conducted throughout the country.

The study will first provide definitions of the concepts of sustainable development and environment. Then, domestic and foreign sources related to the subject will be summarized and the contribution of the study to the literature will be mentioned. Finally, the data obtained from the survey will be analyzed using the IBM SPSS 20 program. In the conclusion section, policy recommendations will be made.

LITERATURE REVIEW

Within the scope of the research, domestic and foreign sources were scanned. The studies conducted in the literature are summarized in Table 1 under four categories: the author's surname, publication date, purpose of the study and the result. At the end of the section, the contribution of the study to the literature will be mentioned.

Table 1: Literature Review

Author's Surname	Publication Date	Purpose of the Study	Result of the Study
Dincer & Rosen	1999	The relationship between energy, environment and sustainable development is examined.	It is determined that there is a close relationship between the three concepts. In this context, suggestions are made to policy makers.
Giddings et al.	2002	The theoretical meanings attached to sustainable development are examined.	As a result of the findings, it is claimed that while the economic concept is intertwined with society and environment, human existence and society are dependent on the environment.
Paris and Kates	2003	It aims to eliminate the confusion of meaning attached to the concept of sustainable development.	The aim is to separate the concepts of sustainable development that cause confusion of meaning.
Mutlu	2007	Sustainable development goals are examined in terms of environmental accounting.	It is stated that environmental accounting is an important tool in fulfilling sustainable development goals.

Abdeen	2008	This study examines the measures taken regarding the Montreal Protocol, to which world states became parties in 1997.	As a result of the findings, it is determined that sufficient precautions are not taken, especially in areas such as heating, lighting, etc. in buildings.
Erkal et al.	2011	The relationship between sustainable development and environmental education is evaluated in its theoretical dimension.	It is claimed that there is a direct relationship between environmental education and sustainable development goals.
Tıraş	2012	The relationship between sustainable development and environment concepts is examined theoretically.	It is argued that countries should take environmentally sensitive steps in order to achieve sustainable development goals.
Ozkan	2017	Environment and environmental problems are compared within the context of sustainable development in the context of Türkiye and EU countries.	It is revealed that Turkey's policies regarding the environment and environmental problems are weaker than those of EU countries.
Dere and Cinikaya	2023	The Ministry of National Education's environmental education and climate change courses are being examined in line with the 2030 UN Sustainable Development Goals.	Targets are stated to make students more sensitive to environmental problems.
Altınel et al.	2024	It aims to reveal the cognitive structures of	As a result of the interviews, it was found

		prospective teachers that classroom teacher towards environmental candidates associate problems. environmental problems and environmental pollution more with social and science teacher candidates.
Ayhan and Töman	2024	It is aimed to examine the cognitive development of primary school 5th, 6th, 7th and 8th grade students regarding environmental problems, ecological footprint and water footprint concepts. It was determined that although children were knowledgeable about environmental problems, they did not have any information about ecological and water footprints.
Bozoğlu et al.	2024	It is aimed to examine the global climate change and environmental issues that 5th, 6th, 7th and 8th grade secondary school students study in the textbooks and science classes from an external didactic perspective. As a result of the research, it was found that there were differences in the way the subject was handled in the textbooks and recommendations were made on how it should be in an ideal system.

Source: Compiled by the author.

When domestic and foreign sources are evaluated in general, it has been determined that there is a close relationship between sustainable development and the environment. The concept of the environment is seen to be related to the sustainability of human health. In general, secondary data is used in the studies. The research is different from other studies in terms of conducting a survey, which is a field research related to the subject. The measurement of the measures taken by the municipalities, which are the implementers in the field, constitutes its originality.

MATERIALS AND METHODS

In the article, in order to determine the place and importance of the environment in sustainable development, a survey to be used in the field research is created by scanning domestic and foreign sources related to the field. The survey questions consist of three parts: demographic questions, questions about the environment and environmental problems, and questions about the relationship

between sustainable development and the environment. In order to measure the reliability of the survey questions, 100 surveys were applied to the target audience. The obtained data was transferred to the IBM SPSS Statistics 20 program. The Cronbach Alpha value of the data is examined. When the value of all the questions is examined, the value is 0.90. This value means perfect (Elma, 2019, 11). With the reliability of perfect, the survey was applied to the whole country.

FINDINGS

The responses given by the participants to the demographic questions in the first part of the survey are shown in Table 2.

Table 2: Frequency (Number, N) Distributions of Demographic Questions

Questions	Answers											
Your Gender	Male						Female					
	Frequency (N)				Percentage (%)		N		%			
	278				37		476		63			
Your Age Range	18-24		25-34		35-44		45-54		55 ve Üzeri			
	N	%	N	%	N	%	N	%	N	%		
	597	79	97	13	45	6	13	2	0	0		
Your Job	Student		Officer		Employee		Housewife		Freelance		Soldier	
	N	%	N	%	N	%	N	%	N	%	N	%
	548	73	64	9	63	8	35	5	26	3	18	2
Your Education Status	Primary school		Middle school		High school		Vocational School		Bachelor's degree		Postgraduate education	
	N	%	N	%	N	%	N	%	N	%	N	%
	11	2	24	3	190	25	340	45	157	21	32	4
Your Marital Status	Married						Single					
	N				%		N		%			
	99				13		655		87			

Source: IBM SPSS 20 Statistics Program

The first question asked to the participants was about gender. 63% of the participants, 476 of whom were female, were 37% male. The second question asked about age range. The answers given by the participants, from highest to lowest, were 79%, corresponding to 597 people between the ages of

18-24, and 13%, corresponding to 97 people. 6%, 45 people between the ages of 35-44. The answers given by the participants regarding their professions, from highest to lowest, were 73% (548 people) student, 9% (64 people) civil servant, 8% (63 people) worker, 5% (35 people) housewife, 3% (26 people) freelance and 2% (18 people) soldier. The participants' preferences for the question of education status, from highest to lowest, are as follows: 70% (529 people) have an associate degree, undergraduate and graduate degree, 25% (190 people) have a high school degree, 3% (24 people) have a middle school degree and 2% (11 people) have a primary school degree. It was determined that the participants' education levels were generally high. Finally, 87% (655 people) were single and 13% (99 people) were married in the question of marital status. In order to determine the problems experienced in the regions, questions were asked to the participants about environmental problems.

The frequency distributions of the options preferred by the participants in the questions are shown in Table 3 below.

Table 3: Frequency Distribution of Urban Environmental Problems in the Region

Questions	Answers									
	I strongly disagree (1)		I disagree (2)		I'm undecided (3)		I agree (4)		I strongly agree (5)	
	N	%	N	%	N	%	N	%	N	%
Garbage and Solid Waste Problem is a Major Urban Environmental Problem	37	5	32	4	19	2	26	3	640	85
Environmentally Unfriendly Construction and Visual Pollution are Important Urban Environmental Problems.	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
	30	4	27	3	62	9	25	3	610	81
Water and Sea Pollution is a Major Urban Environmental Problem.	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
	32	4	22	3	32	4	51	7	617	82
Air Pollution is a Major Urban Environmental Problem.	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
	35	5	16	2	26	3	53	7	624	83
Noise Pollution is a Major Urban Environmental Problem.	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
	27	4	24	3	38	9	99	13	566	71

Source: IBM SPSS 20 Statistics Program

According to Table 3, those who say that garbage and solid waste problems are an important urban environmental problem in the places they live constitute 88% (666 people), while 6% (69 people) state that there is no such problem. When asked about buildings not being suitable for the structure of the environment or visual pollution, 84% (635 people) of the participants stated that it is an important urban environmental problem, while 7% (67 people) do not see it as an urban problem. 89% (668 people) of those who say that water and sea pollution are an urban problem state it as an important urban problem, while 7% (54 people) state that it is not a problem. Those who prefer air pollution constitute 90% (679 people) of the participants, while 7% (51 people) say it is not. Finally, those who prefer noise pollution constitute 84% (665 people) of the participants, while 7% (51 people) do not count it as an urban problem. The top three pollution problems in terms of urban environment in the country are; air pollution, water and sea pollution, and garbage and solid waste problems. The government needs to provide incentives for investments in these areas.

Participants were asked questions measuring their sensitivity to the environment and environmental problems of the municipalities in their region. The frequency distribution of the answers given to this question is shown in Table 4.

Table 4: Frequency Distribution of Questions Measuring the Municipality's Environment and Environmental Sensitivity

Questions	Answers									
	I strongly disagree (1)		I disagree (2)		I'm undecided (3)		I agree (4)		I strongly agree (5)	
	N	%	N	%	N	%	N	%	N	%
Street and Alley Cleaning Services Are Important and Necessary.	37	5	17	3	43	5	19	2	638	85
Garbage and Waste Related Services Are Important and Necessary.	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
	30	4	30	4	19	2	45	6	630	84
Services Related to Parks and Green Areas (Protection and Revision) Are Important and Necessary.	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
	24	3	13	2	28	3	57	8	632	84
Services to Prevent Environmentally	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%

Unfriendly Construction are Important and Necessary.	24	3	12	2	41	4	52	7	635	84
Services to Raise Public Awareness About the Environment and Environmental Problems are Important and Necessary.	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
	28	4	15	2	26	3	53	7	631	84

Source: IBM SPSS 20 Statistics Program

According to Table 4, the most preferred answers to the questions regarding the environmental sensitivity of municipalities such as street and avenue cleaning services are important and necessary, garbage and waste services are important and necessary, park and green area services (protection and revision) are important and necessary, services for preventing unsafe construction are important and necessary, and services for raising public awareness about the environment and environmental problems are important and necessary are as follows: 87% (657 people), 90% (675 people), 92% (689 people), 91% (687 people) and 91% (684 people) of the participants see them as positive services, while the least preferred ones are 8% (54 people), 8% (64 people), 5% (47 people), 5% (36 people) and 6% (43 people) think they are negative. Participants generally think that municipalities should take an active role in environmentally sensitive services. The frequency distribution of answers to questions regarding the place and importance of the environment in sustainable development is shown in Table 5.

Table 5: Frequency Distribution of the Role of the Environment in Sustainable Development

Questions	Answers									
It is necessary to popularize environmentally friendly energy sources.	I strongly disagree (1)		I disagree (2)		I'm undecided (3)		I agree (4)		I strongly agree (5)	
	N	%	N	%	N	%	N	%	N	%
	27	4	17	2	15	2	53	7	642	85
It is necessary to develop technology to prevent air and soil pollution.	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
	26	3	18	2	31	4	57	8	622	83
It is necessary to make water resources sustainable.	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
	19	2	18	2	23	4	46	6	648	86

It is necessary to remove hazardous waste and make solid waste reusable through recycling.	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
	26	3	27	3	12	2	50	7	639	85

It is necessary to protect biodiversity.	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
	19	2	31	5	19	2	43	6	642	85

Source: IBM SPSS 20 Statistics Program

According to Table 5, in the questions related to the role of the environment in sustainable development, the need to spread environmentally friendly energy sources, the development of technologies to prevent air and soil pollution, the sustainability of water resources, the elimination of hazardous wastes and the recycling of solid wastes, and the protection of biological diversity, the most preferred answers were 92% (695 people), 91% (679 people), 92% (694 people), 92% (689 people) and 91% (685 people), respectively, and those who argued that it would have a negative effect were 6% (44 people), 5% (44 people), 4% (37 people), 6% (53 people) and 7% (50 people), respectively.

DISCUSSION AND CONCLUSION

With globalization, we have started to see the liberalization movement in every area of our lives. Nowadays, environmental problems have ceased to be national issues for countries. Especially because large companies have established themselves in third world countries due to cheap input costs, it has become difficult for many underdeveloped countries to combat environmental problems on their own. This has caused environmental problems to be carried to the international level.

Many meetings and measures have been taken at international levels throughout history to combat environmental problems. However, since serious costs have to be incurred in the fight, many states and companies have not taken responsibility for this. In addition, underdeveloped countries have ignored the measures they should take to prevent their production facilities from harming the environment while operating in order to ensure that foreign capitalists make investments directly. With the recent increase in these movements, environmental pollution has increased and caused natural disasters such as global warming to occur.

The last international meeting on environmental pollution was held in 2015 at the United Nations. In the meeting, to which our country was also a party, it was concluded that countries should minimize the damage to the environment and consume resources at a level that will ensure that they are transferred to future generations. In this context, a certain period of time has been determined for countries regarding the steps they need to take. 17 Sustainable Development Goals have been determined to ensure

continuity in many areas of our lives until 2030. Countries are obliged to fulfill their duties until 2030. In the research, a survey application, which is a field research, was carried out in order to determine the importance of the environment in sustainable development. First, survey questions were created by scanning local and foreign sources conducted in the field. The survey includes three sections: demographics, environmental problems and environment in sustainable development. A survey was conducted on 100 people in order to measure the reliability of the survey. The obtained data is examined by the Cronbach Alpha value, which is a reliability test, using the IBM SPSS Statistics 20 program. The survey questions received a value of 0.90, which indicates high reliability. Then, a survey was conducted on 754 people across the country. The obtained data is tabulated as frequency values using the program, and the results and policy recommendations are given below as items:

- 63% of the 754 participants are women. 92% of the participants are in the 18-34 age group. The highest status is 73% university students. 70% of them have an associate degree, undergraduate degree and postgraduate degree. 87% of them are single in terms of marital status. When we look at the demographic questions in general, $\frac{3}{4}$ of them are young university students who are the future of our country. This will especially include the segment that can come to the senior positions of tomorrow and their views on the environment, which will lead to the formation of an idea about how future generations can manage our country in the future. It is foreseen that it will make a significant contribution to the literature with this feature.

- The environmental problems in the regions where the participants live are 88%, 84%, 89%, 90% and 84%, respectively, who prefer garbage and solid waste, unsafe construction and visual pollution, water and sea pollution, air pollution and noise pollution. Based on this, it can be said that all environmental pollutions are present throughout our country. Local administrations need to take serious steps especially in these matters. The earthquake that affected 11 provinces of our country on February 6, 2023 has once again revealed the fact that buildings are not built in accordance with the geological characteristics of the environment. Building inspection organizations need to give permission for construction by taking into account the physical conditions of the place where the construction will be built. In addition, facilities for the disposal of garbage and solid waste should be established, and strict inspections should be carried out on facilities that release toxic gases against environmental, sea and air pollution, and minimum damage to the environment should be ensured.

- The participants responded to the questions that municipalities should provide environmental services such as street and avenue cleaning, garbage and waste disposal, services related to parks and green areas in the region, not allowing constructions that are against the environment and raising public awareness on preventing environmental pollution with 85%, 84%, 84%, 84% and 84%, respectively. Considering that 92% of the participants are in the 18-34 age group and 73% are university students, it is seen that the young population wants a more livable environment. In addition, it can be said that the fact that the participants are educated affects their perspective on the environment positively. Education

aimed at ensuring that all segments of our country are environmentally friendly can be spread to all bases. In this way, more sensitive individuals in the society will be formed.

- Finally, regarding the importance of the environment in sustainable development, the answers to the questions of spreading environmentally friendly energy sources, developing technologies to prevent air and soil pollution, ensuring the sustainability of water resources, eliminating hazardous wastes and making solid wastes reusable through recycling facilities and protecting biodiversity are 92%, 91%, 92%, 92% and 91%, respectively.

- In order to encourage companies to be more environmentally friendly in their production, tax advantages and grant opportunities can be provided based on criteria such as how little harm their production activities cause to the environment, whether the products they make can be reused, etc.

In the research, it is generally expected that the participants are environmentally friendly and that local governments will fulfill their services on the subject. It is desired that the development of the society takes place without harming the environment. Governments should also take these sensitivities into consideration when making development programs.

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