

## **RELATIONSHIP BETWEEN SUSTAINABLE DEVELOPMENT AND HEALTH: THE CASE OF TURKEY**

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### **Abstract**

Sustainable development is the fulfillment of the needs of the present generation without destroying the ability of future generations to meet their own needs. Among the main elements of sustainable development, there are economic elements, socio - cultural elements and environmental elements. Reducing World hunger, gender equality, clean water and sanitary conditions, appropriate work and economic growth, industry-innovation and infrastructure, reduction of inequalities, responsible consumption and production, aquatic life, terrestrial life, peace and justice, poverty reduction, accessible clean energy, sustainable cities and habitats and healthy individuals are some of the key objectives of sustainable development.

Health is considered one of the important indicators in achieving these goals. Health is one of the basic needs of humankind. According to the definition made by the World Health Organization health; is expressed as the state of full well-being of the individuals in physical, spiritual and social aspects. It is natural that this state of full well-being is closely related to economic development and the environment it affects. In evaluating the goals of sustainable development; health indicators which are used include variables such as nutrition status, mortality, hygiene conditions, drinking water, and health services. Relationship between sustainable development and health will be examined within Turkey examples study.

**Keywords:** Sustainable Development, Health, Turkey

**Jel Codes:** I00, I15, Q01

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## **1. Introduction**

Since 1970s, environmental problems have attracted the attention of development economists. While initially development discipline ignored the environmental problems, they adopted an understanding taking the environment into consideration as of that date. This understanding is expressed as sustainable development. The Sustainable development concept has brought together both environment and economic and social elements which existed in development before.

The sub-headings of this connection between environment society and the economy play a important role in this interaction. Accepted to be one of the important sub-headings at social element, The Health element stands out as a factor directly affecting the welfare of human beings. In this context, health is in intense interaction with the environmental and economic subjects which constitute sustainable development. The factors affecting human health play an important role in the open and closed areas in the interaction between sustainable development and health. In the scope of this study the relationship between sustainable development and health is studied on the basis of these titles. Turkey has been selected as the study area.

## **2. An Overview of Sustainable Development Concept**

Sustainable development has been defined in different ways since it was first proposed. From poverty reduction to environmental protection and income distribution to justice; many sub-headings have been seen within this definition. The definition which is accepted as valid today in terms of sustainable development was made in 1987 in our Brundtland (CommonFuture) report.

According to the Brundtland report , sustainable development is the process of meeting the needs of today's generations without devotion of the possibilities to meet the needs of future generations. Sustainable Development; it covers the social relations in which the environment, economy and health elements are involved. The most important aspect of the concept of sustainable development is to meet the needs of the present population in a way that will not cause problems in meeting the needs of future generations.

With the starting to discuss the environmental problems emerging after the industrial revolution, many thinkers started to express their opinions to conserve of existing resources. Increasing environmental problems led to inclusion of development related issues related to sustainability as well as traditional concerns on growth and equality. Understanding the fact that resources are going to be exhausted in the not

too distant future together with the environmental problems led to wider understanding of the need for sustainable development.(Eryilmaz,2011).It is accepted that the milestones of sustainable development started with the Stockholm Conference in 1972.

#### ***Our Common Future Report (Brundtland), 1987***

The Brundtland report prepared by the United Nations Commission on World Environment and Development in 1987 is a report looking for results in response to problems for sustainable development, such as the elimination of poverty, equal distribution of benefits from our resources, constant control of the population, and finally the development of technologies that do not harm the environment. In the Brundtland report, it is thought that growth can be realized with an environmentally friendly perspective and that it can fulfill the objectives such as to overcome environmental problems and to prevent poverty. According to the Brundtland report, if the sustainable development model is provided by technology and economic vitality, it is stated that it will be the first and most important social policy structure to improve the quality of these people's life (Karataş, 2017).

#### ***United Nations Conference on Environment and Development (Rio De Janerio, 1972)***

The United Nations Conference on Environment and Development was organized with the participation of 178 states in the city of Rio De Janerio, Brazil between June 3-14, 1992.

At the Rio conference, it has been accepted that every human being is in the center of Human Sustainable Development phenomenon and has the right to a healthy and fruitful life in harmony with nature. With the Rio conference, the scope of the concept of sustainable development has expanded considerably, and the concept has taken its place in many disciplines. Concepts and issues such as sustainable development, sustainable human development, sustainable mountain development, promotion of sustainable agriculture and rural development, and sustainable forest settlement has also been elaborated on in The Agenda 21, accepted at the conference.

It has been pointed out that the new concepts brought by the conference have a very close relationship with the concept of sustainable development, and that in order to reach a sustainable development, activities should be carried out in areas such as environment, economy, urbanization and management (Taşkın, 2006: 22).

#### ***Agenda 21 ( 1992 Rio Summit)***

At the World Summit in Rio De Janerio , Brazil in 1992 ,approximately 180 countries signed the Agenda 21 and committed

themselves to cooperate on the world's most complex and pressing issues in the 21<sup>st</sup> century. The summit ended with a long document Agenda 21, divided into four sections. At the summit, social and economic dimensions, protection and management of resources for development, strengthening the roles of major groups and the means of implementation were discussed. 179 countries signed this document and committed.

Themselves to implement this program at national, regional and local level and to participate in international projects on financing and technology transfer.

#### ***European Union Environmental Action Programs***

Since 1973, 7 environmental action programs have been started in order from 1st environmental action program.

- 1st Environment Action Program
- 2nd Environment Action Program
- 3rd Environment Action Program
- 4.Environmental Action Program
- 5th Environment Action Program
- 6th Environment Action Program
- 7th Environment Action Program

Within the scope of the 7th Environment Action Plan, which is envisaged to be in effect until 31 December 2020, the following priority targets are defined:

1. The conservation, preservation and strengthening of the capital
2. Ensuring transition to efficient, green, competitive low carbon economy
3. Protecting the health and well-being of citizens against environmental risks
4. Improving the implementation of environmental legislation
5. Enhancing knowledge and experience in environmental legislation
6. Providing necessary investment for environmental and climate policies
7. Integration of the environment into other policy areas and ensuring consistency in policies
8. Strengthening the sustainability of cities
9. Strengthening the effectiveness of the international environment and climate problems (EU, 2018)

#### ***Commission on Sustainable Development, 1993***

In 1993, a sustainable development commission was established within the Economic and Social Council within the United Nations. The

Commission was established on the basis of Article 68 of the United Nations Charter and the relevant provisions of the Agenda 21 adopted at the conference. The purpose of the commission is to ensure the effective monitoring of the implementation of the principles and provisions adopted in the Conference, to strengthen international cooperation, to rationalize the intergovernmental decision-making capacity for the integration of environmental and development issues, and to examine the developments of implementation of the Agenda 21 on a national, regional and international level (Taskin,2006: 23).

***United Nations Conference on Population and Development (Cairo, 1994)***

Found in 1994 by 179 countries including Turkey adopted the Cairo International Conference on Population and Development Conference (ICPD) Program of Action, comprehensive human rights approach that includes reproductive health and rights of women with the definition and girls, people of all individuals, especially It reflects a remarkable international consensus based on economic growth and sustainable development, together with an increasing population of individual welfare by strengthening their rights (BMdergi, 2018).

***United Human Settlements Conference Habitat III. (İstanbul, 1996)***

Habitat conferences are a program designed to create sustainable human settlements and provide adequate housing for all. By organizing a conference every 20 years, it determines the agenda for sustainable urban settlement all over the world. The first conference took place in 1976 in Vancouver, Canada. Turkey by hosting Habitat III in 1996 with the concept 'Livable Cities' has contributed significantly to the framework of sustainability in.

The third of the conferences was held 17-20 October 2016 in the capital of Ecuador, Kito. It was stated that the achievement of sustainable development goals with Habitat III depends on the way in which global urbanization is managed and directed (HABITATCSB, 2018).

***Rio + 5 Form (New York, 1997)***

The RIO + 5 Forum was held in 1997 in New York. The Forum's vision is to bring together a broad range of participants to 'implement' sustainable development from 'the agenda'. Strategy and management systems by implementing sustainable development at local, national and global levels have been focused in the forum.

Objectives of the Forum:

1. To determine the issues and successful applications in the implementation of sustainable development
2. To establish partnerships, to make necessary initiatives and to make recommendations for the establishment of formal and informal management operating systems to promote sustainable development
3. Support multilateral cooperation efforts to implement sustainable development at all levels
4. Promote local and national sustainability against global negative consequences of sustainable development
5. Promote local and national sustainability against the negative consequences of economic globalization
6. Engaging in various initiatives on civil society organization, structural systems for reorganization of management systems and economic initiatives (Taskin, 2006: 26).

***Conference on Sustainable Development (Johannesburg, 2002)***

It was built in 2002 in Johannesburg, the largest city in the Republic of South Africa. The conference focused on issues such as the evaluation of the latest developments in the preparation of national sustainable development strategies and discussing the problems encountered in the implementation of the Agenda 21, sharing the experiences gained, developing the proposals, benefiting from the experiences of civil society and private sector organizations. Two main international documents were adopted at the Sustainable Development Conference. These are the “Action Plan” and “Johannesburg “declaration.

There are main targets of sustainable development. These targets were appeared in 2012 at the United Nations Conference on Sustainable Development in Rio de Janeiro. The aim is to create a set of universal objectives that address the immediate environmental, political and economic challenges facing our world. Sustainable development goals have replaced the Millennium Development Goals, which launched global mobilization in 2000 to eliminate degrading poverty. These objectives are listed as follows:

- End to poverty
- End of hunger
- Healthy individuals
- Qualified training
- Gender equality

- Clean water and sanitary conditions
- Accessible and clean energy
- Decent business and economic growth
- Industry, innovation and infrastructure
- Reduction of inequalities
- Sustainable city and living areas
- Responsible consumption and production
- Climate action
- Life in water
- Peace and justice
- Partnerships for targets (Undp, 2018)

### 3. General Concept of Health

Health is defined by the World Health Organization (WHO) as a state of complete physical, mental and social well-being of people, rather than the absence of a disease or disability, in contrast to widely belief. Health services can be defined as the services provided to maintain the lives of individuals, individuals and the society in a balanced way by protecting individuals' body, mental and social balance (Poyraz, 1990: 5-6)

Health services having a very important role in the healthy living and health of societies have a complex structure today. Although the positive effects on human health are so many that there is no need to discuss, it should still be taken into consideration that the health services are not effective in maintaining the health level and correcting the negative changes that occur in the health level alone. Because genetic, environmental, social and economic factors are also effective in maintaining the health level and correcting the resulting imbalances, most of the environmental and social factors have an economic nature. Health services are divided to three section (Alpugan, 1984: 140-141):

- **Labor:** Doctors, dentists, nurses, professional occupational groups such as health technicians, nurses, nurses, nurses, and so on, such as other health care staff efforts are in this group.
- **Physical Capital:** The buildings, equipment and tools used in health services are included in this group.
- **Intermediary goods and services:** drugs, medical equipment (such as syringes, bandages, etc.) and all the services offered by support services are included in this group.

Expenditures made in the context of health services generally cover the expenditures made on behalf of health protection and

development. When health expenditures increase, the living standards of individuals are affected. Governments now pay more attention to health spending. Because every investment in the name of health will affect directly economic growth and as economic growth takes place, governments will increase their share of health expenditures. Health spending in Turkey is involved in the central government budget expenditures. (Akar, 2014: 316) The increase in the share of health care for budget expenditures will positively affect the living standards of individuals.

**Table 1: Turkey's Health Expenditures (1999-2016)**

<b>Years</b>	<b>Total Health Expenditure (Million TRY)</b>	<b>Ratio of Total Expenditure to GDP(%)</b>
1999	4.985	4.7
2000	8.248	4.8
2001	12.396	5.1
2002	18.774	5.2
2003	24.279	5.2
2004	30.021	5.2
2005	35.359	5.2
2006	44.069	5.6
2007	50.904	5.8
2008	57.740	5.8
2009	57.911	5.8
2010	61.678	5.3
2011	68.607	4.9
2012	74.189	4.7
2013	84.390	4.7
2014	94.750	4.6
2015	104.568	4.5
2016	119.756	4.6

Source: Turkish Statistical Institute (TSI)

As of 2016, health spending of Turkey has realized 119 756 million and this figure accounts for 4.6% of GDP. Turkey is located in the last rows in OECD countries. The highest value country in health expenditures is Sweden (10.2%). In 2016, 78.5% of health expenditures were covered by the general government budget and 16.3% by households and at that time health expenditure was 1.524 (TSI, 2016).

It is also important to finance individuals as much as health care spending in order to take place as a healthy individual in society. It is

important how the expenditures made when providing health services to individuals and how they are shared by individuals in the community. Because the health services provided to individuals should be sustainable. Health financing is to create the necessary resources to meet the costs of health care. The main purpose of health financing is to protect individuals from the economic burden of the disease when they encounter unexpected diseases (Uğurluoğlu, 2008: 135). The financing of health services is provided by different ways of using funds collected in different ways. Financing methods of health services are listed as follows;

**\*Tax Revenues:** The State finances general tax revenues and health services where all taxes are combined and the level of such support varies by country. The most important reason for the difference is the economic and political regime differences. Funding with taxes is based on the view that the person who needs health services will receive what service they need whenever they want. shortly, the assumption that taxes are collected through a fair system is the use of health services provided by these collected taxes, and health care services are shaped accordingly (Uğurluoğlu, 2008: 137-138).

**\*Social Health Insurance:** Social health insurance is called the insurance that provides financing of the expenditures if people face a health risk.

**\*Private Health Insurance:** These are special plans to cover the health expenses of the person who is insured as a result of illness or accident. It is common in high-income countries.

**\*Medical Savings Accounts:** Medical savings accounts are personal savings accounts dedicated to financing health or medical care expenditures. It is based on the fact that individuals, households and firms voluntarily or necessarily make money in their own bank accounts against the health risks that may arise in the future and use this money only for health expenditures. There are some reasons behind the implementation.

The first is to create savings, to bring them to a certain level and to stimulate these savings to meet the cost of spending related to health or medical care that is expected to occur in the future. The second reason is to record those who demand health care and those who consume it in order to control costs. A third reason is to ensure the mobility of financial resources for health systems. Medical savings accounts are closely related to the savings capacity that people have in their life cycle. Medical savings accounts alone are not considered sufficient to finance high-cost diseases or chronic conditions. Rather, it is considered

as an additional structure to other systems under state control in such cases. Medical savings accounts improve health financing options and provide major benefits to the health care system. It has a positive effect on the creation of additional resources. These resources are allocated to existing health services or used in the financing of major health services in the future. Medical savings accounts are organized with the aim of getting rid of the third party payment limitation which is one of the main problems encountered in health financing and thus providing access to health services (Erumut, 2014: 93-126).

**\* Out-of-pocket expenses:**

Payments made directly by patients and households for health services. Payments made directly to the service provider and out-of-pocket expenditures are the simplest form of resource transfer during health care delivery and financing (Uğurluoğlu, 2008: 147).

**4. Relationship Between Sustainable Development and Health**

With the realization of the Industrial Revolution, positive developments have taken place in the field of economic, social, environmental and demographic. There have been developments in the field of health following all these developments. One of the consequences of the industrial revolution is the increase in the differences between the levels of economic development among countries. Today, health is one of the most important tools of economic development. Therefore, in order to ensure an effective economic development, countries need to provide individuals with all services in the field of health. Because when a healthy individual can work and produce something, it contributes to the national economy. The concept of sustainable development includes environment, economy, socio-demographic, and health elements. The main feature of the concept of sustainable development is to meet the needs of the present population so as not to prevent the needs of future generations. The importance of this definition in terms of health services and system is to improve the quality of human life without harming the environment. However, the concept of sustainable development contains much more than environmental protection initiatives. This concept also includes future generations and long-term health. Sustainable development not only focuses on income growth, but also on quality of life, including poverty reduction, equality between generations (future generations also have the right to live in a world as beautiful as we live) and the social and moral aspects of human well-being (Çelik, 2006). The themes and indicators presented in Table 2

are important in the relationship between sustainable development and health.

**Table 2. Evaluation of Sustainable Development Goals**

<b>Theme</b>	<b>Sub-Theme</b>	<b>Indicator</b>
<b>Health</b>	Nutritional status	-Nutritional status of children
	Death rate	-Life expectancy at birth -Child mortality rate under 5 years
	Hygiene Conditions	-Proportion of the population who has adequate polluted water and waste service
	Drinking water	-Proportion of population who able to find clean drinking water
	Healthcare	-Population receiving primary health care -Vaccination against infections child diseases- Using proportion of birth control methods

Source: UN Statistical Indicator

Nutrition status, mortality rate, hygiene conditions, drinking water and health services are important instruments in sustainable development health relationship. The status of these instruments in the relationship network is an indication of whether this relationship is positive or negative.

### **5. Discussion**

In the study of Çelik (2006) he examined the relationship between sustainable development and, health, he examined the role of health services in the development of a developed society, which is the ultimate goal of all countries. According to the findings of a theoretical study, it is revealed that there is a close connection between health and sustainable development. Taşkın (2011) examined the relationship between sustainable development and health in Edirne Province example. In the study when survey method was implemented, in point of provision of health services, the number of practitioners, specialists, dentists, pharmacists, obstetricians and nurses for one hundred thousand people is significantly above Turkey average, but apart from the number of obstetricians, it is behind EU and European Union countries. In addition, he found that a holistic approach between the components of sustainable development could not be fully implemented at all levels and areas.

Akar (2014) examined the relationship between health and growth in Turkey example. According to the findings of co-integration analysis and 2004-2013 study, there was a significant relationship between long-term health expenditures, the relative price of these expenditures and economic growth variables, but no significant relationship was found in the short term. In the study which Alpugan (1984) examines health care

economically, contribution of health services to ensure a healthy life is important. According to the findings of this research which is an empirical study, revealing the health services is closely related to the science of economics. In the study of Mutlu (2006) examines the relationship between health services and stage contamination; it is stated that the benefits and damages of public goods affect the entire society by crossing the borders of the country and in this context, the relation between environmental pollution and health services is of great importance.

Çetin and Ecevit (2010) examined the relationship between health expenditures and economic growth in the case of OECD countries. There was no statistically significant relationship between health expenditures and economic growth according to the findings of panel regression analysis and 1990-2006 period studies. Dempsey vd. (2011) *The Social Dimension of Sustainable Development: In the study named as Defining Urban Social Sustainability*, discussions about sustainability include not only an environmental threat, but also economic and social aspects. Although the social dimension of sustainability is generally accepted, what this means is not fully understood. In this study, the empirical framework, the social context of sustainability in urban context is discussed in detail. The relationship between urban form and social sustainability has been dealt with in the two main dimensions of social sustainability. These are access to equity and sustainability of society. Giddings vd (2002), in the study called “*Environment, Economy And a Society of Sustainable Development: Defining Urban Social Sustainability*”; the concept of sustainability has been evaluated very differently between people and organizations. Even though this concept is generally accepted as the intersection between environment, society and economy, it can be considered in cracked, multilayered and spatial levels. In this study, it was mentioned that the concept of sustainability will be a long-term and principle-based perspective. Smith vd (1990) in the study called as “*The Black Report On Socio economic Inequalities In Health 10 Years On*” a large number of studies contributed to a broader understanding of the scope of health inequalities when black report appeared. In addition to the quality of life, differences in quality of life have been shown. A significant contribution of the black report was to indicate different potential explanations for health inequalities. The inequalities in the death shave been enlarged since the 1950s and continued in the early 1980s. Between 1971 and 1985, it took a step towards more inequality in the post-tax income distribution. Despite all these studies, the relevance of the black report is increasing rather than

decreasing with time. Smith vd (1998) in the study called as " The independent inquiry into inequalities in health " a new report was published to review the inequalities in the field of health. There commendations of the black report have been applied. The new report, however, is noteworthy because it is more likely to focus on policy rather than more research and also this report supports high quality development.

## **6. Conclusion**

The concept of sustainable development is an approach that considers the environment, economy and society as whole. One of the key indicators in this approach is considered to be health. Because meeting the needs of the present generations without endangering the need of future generations requires a healthy balance. At this point, nutritional status, hygiene conditions and health expenditures, which constitute health and healthy life, directly affect the continuation of development. What will be done about health will contribute to the efforts to increase the human being's the quality of life which the development has also targeted by increasing the welfare of the human being. In this context, healthy individuals and society will be used equivalent to the concept of sustainable development. The relationship between sustainable development and health is examined in Turkey example in this study. And it was found that investments in health and environment in Turkey is behind the developed Western countries. In order to overcome this deficiency, more investment in health and environment is needed. As a result, it is important for the states to show due diligence in the relationship between sustainable development and health care, and to provide health care services both not only for today but also for future generations.

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