

# Evaluation of Environment Policies in Turkey's Development Plans

Yaşar Akça<sup>1</sup>, Melih Öztürk<sup>2</sup> & Ali Namık Güneş<sup>3</sup>

<sup>1</sup> Faculty of Economics and Administrative Sciences, Bartın University, Bartın, Turkey

<sup>2</sup> Faculty of Forest, Bartın University, Bartın, Turkey

<sup>3</sup> Faculty of Engineering, Bartın University, Bartın, Turkey

Correspondence: Yaşar Akça, Faculty of Economics and Administrative Sciences, Bartın University, Bartın, Turkey.

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## Abstract

Turkey's five years development plans had been prepared by State Planning Organization (SPO) before 2011; since that time, Ministry of Development has been preparing these plans. The plans include the resources of development goals and preparations that are necessary in order to reach these goals. There are ten development plans including the years between 1963 and 2018. The basic goal of all these development plans is to ensure Turkish citizens have a fortunate and prosperous life. The environment, which is the topic of the article, is the setting in which human continue his biologic, economic, social and cultural life. Its significance of the environment is increasing especially in terms of production, employment and trade every day. The goal of this study is to review environment policies included in the development plans, to analyze their relations with other policies, to bring up Turkey's environmental problems to the agenda and to develop solution suggestions to these problems. Development activities should be carried out without causing any damage to the environment. Protection of environment should be prioritized during the process of urbanization and industrialization. This research is based on qualitative design document analysis technique and environment policies that are mentioned in ten development plans are analyzed. Rather than fighting with environmental pollution, it is much more economic to take precautions in order to prevent it.

**Keywords:** development plans, environment policy, environmental effect evaluation, air pollution, water pollution, soil pollution

## 1. Introduction

The main goals of development are to meet the necessities of public, to increase welfare level and to create new employment opportunities. Significant and interrelated parts of development rely on the cooperation among management, businessmen and public. It is possible to ensure development in a country through increasing investments. In this frame, development plans include organizations and arrangements which shall be done in order to determine the resources to be used, the workforce to be mobilized and plans to be made. The main goals of development plans are to ensure production with high added-value, to increase productivity and agricultural development, to increase the share of industry and employment, to decrease unemployment, to end the income inequality and increase income level of the low-income group, to support the economy of regions with development priority and to empower social substructure. Environment is one of the main elements of human prosperity and happiness. A prosperous society is possible only with a healthy environment. Social development should focus on future generations and ensure a future based on a harmony with nature. Environment is the setting in which human and other living beings exist (Budak, 2000, p. 21). It is impossible to have a happy and prosperous life and ensure development without breathable clean air, drinkable clean spring water and fruitful agriculture soil.

## 2. Environment Policies in Turkey's Development Plans

The main goal of state is to ensure the prosperity and peace of the public. Development, production and

consumption goals necessitate determining policies and taking steps on the basis of them. Environment policies are necessary in order to ensure development without harming environment. Environment policy means determining the desired issues and taking precautions in order to prevent environmental problems (Budak, 2000, p. 22). There are 10 different development plans for a period of 55 years; there is no environmental issue in the first, second, third and eighth five years development plans. Development plans that are affirmed by The Grand National Assembly of Turkey are binding for the public while they are incentive for private sector (Keleş et al., 2012, p. 523). Environment Policies in the above mentioned development plans are analyzed in the following sections.

### *2.1 The Fourth Five Years Development Plan (1979-1983)*

Because of the increase in the amount of waste which caused environment pollution, it was crucial and compulsive to analyze the sewage systems besides water around lands with clean and drinkable water (SPO, 1979, p. 78). Transportation policy based on petrol and private transit increased air pollution and caused serious environmental problems (SPO, 1979, p. 78). Solving environmental problems such as degradation of nature and environment, destruction of soil and water resources, air pollution, and disruption of ecological balance was the generally accepted main policy in the period. The issues of basin's fight, toleration and prevention with pollution and their capacity for self-perpetuation couldn't be analyzed and presented in details in the period. In the time period mentioned above, water and sewerage systems were problematic, soil erosion and forest ecosystems were destroyed. Because of fast and insufficient urbanization and insufficient substructures water pollution started to become an important problem (SPO, 1979, p. 83). As most of the industrial facilities didn't have sufficient water treatment facilities and they poured waste water directly into seas, water pollution significantly increased. Insufficient sewage systems, solid wastes and various kinds of garbage were the other causes of pollution of the seas in Turkey. Inferior quality fossil fuels and increase in the number of private transportation, stack gas emission because of industrialization were the causes of air pollution (SPO, 1979, p. 84). Irregular urbanization, destruction of fruitful agricultural lands because of urbanization and human settlement were the cause of soil pollution. On the other hand, traffic noises in big cities were causing significant stress on people (SPO, 1979, p. 85).

### *2.2 The Fifth Five Years Development Plan (1985-1989)*

Irregular urbanization, soil erosion, rapid industrialization, modernization in agriculture and mechanization were the significant environmental problems in Turkey. The basic approach towards environmental problems wasn't based on eliminating the already existing pollution; the goal of the period was to protect and develop the natural resources in a way that they could be used by future generations. It was determined that the factor of environment shall be taken into consideration while planning and creating projects for investment and organizing, wastes of industrial facilities shall be under control (SPO, 1984, p. 171).

### *2.3 The Sixth Five Years Development Plan (1990-1994)*

Protection of environment through the use of human and natural resources while managing socio-economic activities was the main goal (SPO, 1989, p. 3). Land and environment which were destroyed during mining operations were analyzed and another significant goal of the period was to take necessary precautions and to make administrative and legal arrangements in order to make them reusable (SPO, 1989, p. 66). Industrial facilities shall be controlled and rearranged in a way that they had environmental compliance (SPO, 1989, p. 93). Damages of toxic and contaminating gas emission shall be prevented (SPO, 1989, p. 276). Ensuring economic development through setting balance between human health and nature and leaving a healthy and protected environment to future generations were the basic principles. Environmental consciousness shall be spread to general public. Industrial facilities, substructure, housing and touristic facilities shall not be established on the first three classes of agricultural fields (SPO, 1989, p. 312). Factors that cause air pollution in cities shall be carefully determined and closely followed (SPO, 1989, p. 313).

### *2.4 The Seventh Five Years Development Plan (1996-2000)*

It was determined that the use of opportunities created by technology would make significant contributions (SPO, 1995, p. 4). Changes and arrangements for the protection of environment were insufficient (SPO, 1995, p. 96). Environmental Impact Assessment (EIA) shall be taken into consideration while making investments (SPO, 1995, p. 147). Green-fields shall be created in and around the cities (SPO, 1995, p. 178). Arrangements and practices for preventing air and water pollution, domestic and industrial wastes, change in soil, air and water quality had been limited until that period. Changes in soil, air and water quality because of environmental changes shall be prevented as soon as possible; arrangements to prevent unfair competition shall be made (SPO, 1995, p. 191). Environmental recycling practices shall be supported (SPO, 1995, p. 192).

### 2.5 The Ninth Five Years Development Plan (2007-2013)

The basic goal was to prevent our environment for future generations (SPO, 2006, p. 3). Although there were developments in terms of waste management, protection of nature, noise pollution and EIA, there was still a significant need for changes and developments (SPO, 2006, p. 28). Amount of waste in industry shall be decreased with the use of environment friendly technologies. Waste collection and classification according to the type of waste, transportation and recycling systems shall be established (SPO, 2006, p. 74).

### 2.6 The Tenth Five Years Development Plan (2014-2018)

Rapidly increasing population, urbanization, various economic activities and consumption because of increasing income the pressure on environment and natural resources significantly increased. Environmental pollution, water shortage, desertification, global warming, climate change and loss of forests are on today's global agenda. In the frame of green development approach, it is understood that clean production and eco-efficiency helped protection of environment. The primary points are to prevent pollution, use and protection of natural resources and respect biological diversity (Ministry of Development, 2013, p. 13). In order to have healthy living space and settlements, urban substructure facilities and investments are planned be improved. Drinking water, waste water, solid waste and garbage services have been improved (Ministry of Development, 2013, p. 25). Human environment and quality of business settings are indicators of basic development and prosperity (Ministry of Development, 2013, p. 117). There have been significant developments in emission control, expansion of protected areas, protection of biological variety, preventing environmental pollution, increasing environmental quality, sustainability, use and management of natural resources (Ministry of Development, 2013, p. 136). Use of innovative practices will increase environmental conscience; decreasing waste and emission in cities, productive use of energy, water and resources, recycling, prevention of noise and visual pollution, use of environment friendly material are some of these applications (Ministry of Development, 2013, p. 137).

## 3. Environmental Problems of Turkey

It is possible to summarize the main environmental problems in Turkey as such:

- Firstly, it is determined that country lands are under the threat of increasing population and industrialization. Air pollution causes lung cancer and respiratory diseases. Domestic and industrial wastes cause water pollution and serious soil pollution.
- Irregular urbanization is one of the most significant environmental problems of today. Illegal and shanty housing, lanes, houses without garages, neighborhoods without green spaces shape the frame of cities.
- Agricultural fields around the cities have been destroyed every day while plains and meadows have been used for housing purposes (Öztürk et al., 2017).
- Coasts that should be used by common public for touristic, recreational, fishing and shipping purposes are under the threat of irregular urbanization. There are settlements, holiday villages, hostels, hotels and motels around Turkey's beautiful coasts. This situation causes pollution and destroys nature significantly.
- Environmental problems in Turkey aren't limited with cities; rural areas are also victims of pollution. Misuses of agricultural fields are the main problems of rural areas. As a result of chemical fertilizers, soil in these lands become too salty, they become less fruitful and lose the agricultural potential in time (Saysel et al., 2002).
- On the other hand, forest and natural plants perish in time, which cause erosion, drought and landslide. Settlements on river and stream beds increase the risk of flood.
- Another environmental problem is resulted from mining; opencast mining cause physical and topographic destruction and ecologic degradation.

## 4. Solution Suggestions for Environment Problems

Suggestions for solving Turkey's environmental problems are presented below:

- Fossil-based energy resources is one of the most significant factors that lead environmental problems (petroleum, coal); so, it is important to minimize the use of such resources.
- Energy consumption shall be based on renewable, environment friendly energy resources such as sun, wind, wave, geothermal, biomass, hydrogen etc.
- Misuse of lands, which is a significant environmental problem in Turkey, can be solved by sustainable land use plans. Land classification and correct use according to the type of lands are significant. Physical, chemical and ecological features of lands should be analyzed and sustainable use on the basis of these data should be ensured.

- Already used agricultural lands should be re-used for reproduction.
- Irregular urbanization should be ended and prevented by urban transformation projects. But these projects are unfortunately based on fortifying load-bearing systems in buildings, facade renewing and road expanding. Location, scale, consistence, configuration, color and landscape services should be carefully carried out.
- Ring roads (beltways) should be increased in order to prevent air and noise pollution caused by urban traffic.
- Landscape planning practices in favor of the general public should be continued.
- Lands that are destroyed because of open-cast mining should be renewed by improvement studies such as planting works (Görcelioğlu, 2002).
- Establishing energy production facilities in industrial areas will decrease loss of energy and illegal energy use.

## 5. Discussion

Turkey's environmental problems and related solution suggestions weren't included in the first three development plan periods starting from 1963. Fourth five years development plan is the first one in this respect. The issue of soil and land use, which is the basis of today's environmental problems, is firstly included in this development plan period. Protection and proper use of resources, which are the basis of sustainability, is mentioned in the fifth five years development plan for the first time. Destruction of lands because of mining practices and rehabilitation of them are especially important in sixth five years development plan. Increasing public knowledge and conscious about environmental problems are among the goals of this plan period. In the seventh five years development plan, the main issue is to make use of the opportunities presented by technology in order to solve environmental problems. On the other hand, negative and destructive effects of irregular urbanization are thoroughly analyzed and it is determined that they can be prevented and defeated by forestation, increasing green fields and landscape services. The fact of environmental problems is interrupted in the eighth five years development plan. In the ninth five years development plan, the focus is on the concept of environmental impact assessment and increasing related practices. The tenth five years development plan including the year 2018 focuses on solving environmental problems through analyzing climate change, the issue of sustainability, green infrastructure, ecological and green growth approaches. When the start and progress of development plans are analyzed in details, it can be seen that environmental problems and solution suggestions have a determining role in government policies. After all, development plan which is not environment friendly will never bring peace or happiness and will never succeed. The right to live is possible only when sustainability of all kinds of living beings is ensured. Lessons about environment shall be included in curriculums in every stage of education in order to establish an environmental consciousness. On the other hand, every citizen is responsible for leaving a healthy and livable environment for future generations. As it is difficult to solve environmental problems once they appear, it is better to prevent them before they occur. But if they have already started, cleaning and purification steps are very important. Environmental impact assessment report should be prepared while deciding on making investment. Destruction of nature should be prevented, intense and effective steps should be taken in order to prevent air, water and soil pollution. Polluter pays principle should be established. Domestic waste and emission should be decreased, recycling activities should be expanded. Productive and economic use of energy is significant. Firstly, renewable energy use should be supported and developed and use of environment friendly energy resources should be supported. In the process of protection of environment, European Union Standards should be taken into consideration.

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