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Research Article



THE IMPORTANCE OF POLICY COHERENCE FOR TURKEY'S SUSTAINABLE FOOD SECURITY POLICY

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Abstract

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Sustainable development is at the forefront of the issues that have occupied the world agenda in recent years. Sustainable development debates are generally discussed in the context of environmental problems. The concept of environmental security has become popular because of the increasing interest in environmental problems triggered by globalization and pandemic processes. As a multidimensional concept, there are policies developed by countries for environmental security. However, cooperation between countries has an important role in environmental security. Several initiatives have been made in this regard on international platforms. However, global cooperation is not sufficient. In this context, the consistency between the policies implemented by the countries is another important factor. Accordingly, in this study, the measures taken by Turkey regarding food security, which is an element of environmental security, are discussed. Common food security concepts were identified through an analysis of reports from leading institutions. Afterward, the development plans for these concepts were examined, and it was determined in what context they were used. As a result, it has been determined that there has been awareness about food security in Turkey in recent years, but there are steps that need to be taken in terms of policy consistency.



Keywords: Policy coherence, Food security, Environmental security, Sustainable development.

Jel Codes: Q1, Q13, Q18, L66.

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1. Introduction

In recent years, there has been uncertainty that is rarely encountered in the world. The COVID-19 Pandemic has been added to the ongoing chain of uncertainties with the events of September 11, which has been witnessed since the beginning of the 21st century, the Iraq war, the financial crisis in 2008, the European debt crisis, the Brexit process, the US presidential election, and the trade wars between China and the USA. The pandemic process has increased the uncertainty of the process from good to good and caused it to be prolonged. It seems that this environment of uncertainty will continue to occupy the world agenda for a while.

The importance of consistency between the economic policies implemented in this environment has been understood once again. Because the development of inconsistent policies toward the problems experienced prolongs the solution process and even causes the solution to become more complex. The area where these policies are felt more is those related to sustainable development. In today's world, where climate change and inflationary pressure are felt more, there is an increasing interest in sustainable development.

The 2030 Agenda for Sustainable Development, prepared by the United Nations, has been prepared to draw attention to these problems at the global level. In this agenda, some statements draw attention to environmental security, in which developed and developing countries have recently shown an interest. As it can be understood from here, environmental security, which is an element of sustainable development, and related issues will continue to be on the world agenda at least until 2030.

Food security, which is an element of environmental security, is among the problems that need to be urgently addressed and resolved. The fact that the pandemic process damaged the supply chains and then food prices started to increase around the world caused the start of a process leading to the food crisis. Food will become increasingly important in the coming years, and currently, some countries, such as China, have started to stockpile some food products and seeds.

It has become a necessity for countries to produce policies that will ensure sustainable food security against the food crisis that awaits the world. In particular, countries that are dependent on foreign agriculture are expected to be more affected by this process. From this point of view, in this study, it is tried to answer the question of what the status of policies regarding food security is in Turkey. For this purpose, the concept of policy consistency for

development was emphasized, then information about environmental security was given, the method and data set were introduced, and finally, the analysis was conducted, and the result was reached.

2. The Concept of Policy Coherence for Development (PCD)

Sustainable development policies are multi-sectoral and multi-dimensional. As a result, a policy must be consistent across sectors. Otherwise, any sector's policies that depart from the overall sustainability goals may have a negative impact on the entire process. Policies regarding sustainable development are multi-sectoral and multidimensional. Therefore, policies need to be aligned across sectors. Otherwise, the policies of any sector that deviate from the general sustainability goals may adversely affect the entire process (Nilsson et al., 2012: 398).

In this study, PCD is discussed in terms of "development" priority government policies. In other words, it is argued that other policies of states should be supportive of development policies. In this case, it is not possible to talk about PCD if policies that are not compatible with development policies are adopted.

In recent years, academic studies on the concept of PCD have begun to increase. However, it has been observed that this concept has been expressed in different ways (comprehensive planning, integrated development, and structural adjustment programmes) since the 1950s. The distribution of the four concepts, including PCD, in the Scopus database by year according to the titles is shown in Figure 1.

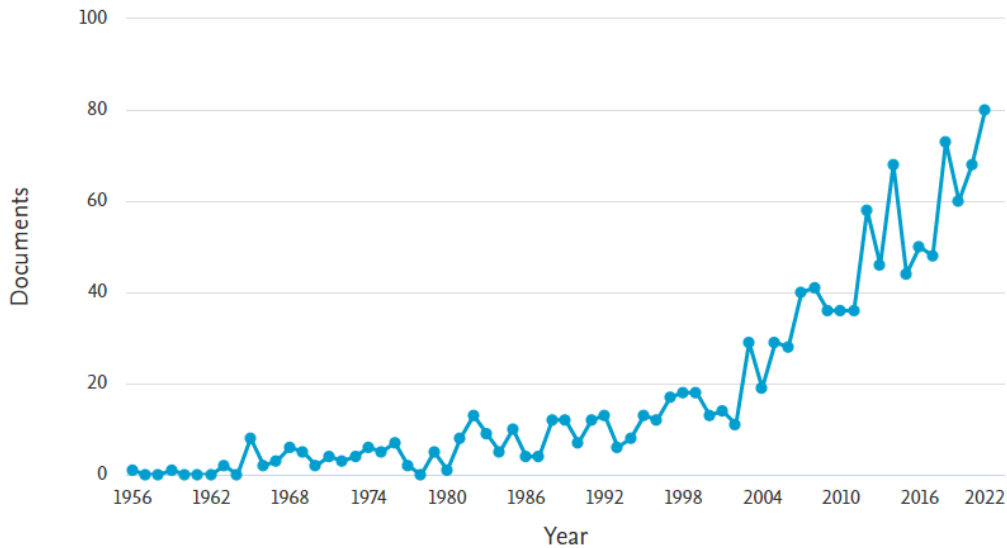


Figure 1.
Studies on PCD and Related Concepts Over the Years

While the same criteria are valid, when only the PCD concept is searched, it is seen that the studies started in 2005, and 2017 was the year in which most studies (11) were conducted.

Different classifications exist for policy consistency. Horizontal and vertical policy consistency is one of these classifications. Vertical policy coherence relates to activities at various levels of responsibility, whereas horizontal policy coherence focuses on the activities of players at the same level. The 2030 Agenda, for example, is at the international level, while the national development plans those countries enact to comply with it are at the regional or national level. Because these treaties are created by actors at several levels, their consistency is seen as part of vertical policy coherence. Horizontal policy coherence, on the other hand, is defined as the interaction of institutions, ministries or sectors at the same level for the fulfillment of national agreements. Figure 2 illustrates the two types of policy coherence mentioned above.

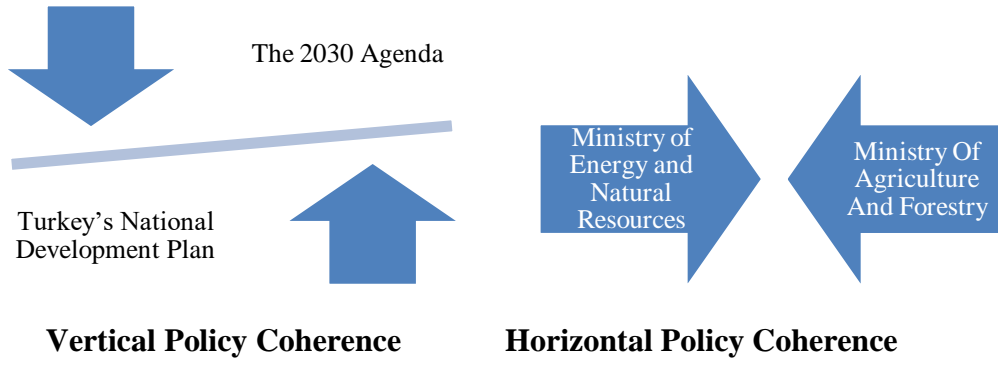


Figure 2.
Vertical and Horizontal Policy Coherence
Source: It has been prepared by the author.

In addition to the above-mentioned types, there are also types of internal, donor-recipient, and multilateral coherence. The coherence between the goals, means, and functions of the implemented policies is internal coherence. Donor-recipient coherence, on the other hand, refers to the interaction between the policies implemented by countries with different development levels. In some cases, the objectives of international organizations may not be compatible with each other. Despite this, there is an interaction between these organizations. The study of this interaction is known as multilateral coherence (Carbone, 2008: 326). Figure 3 illustrates the internal coherence between targets for renewable energy in five different sectors.

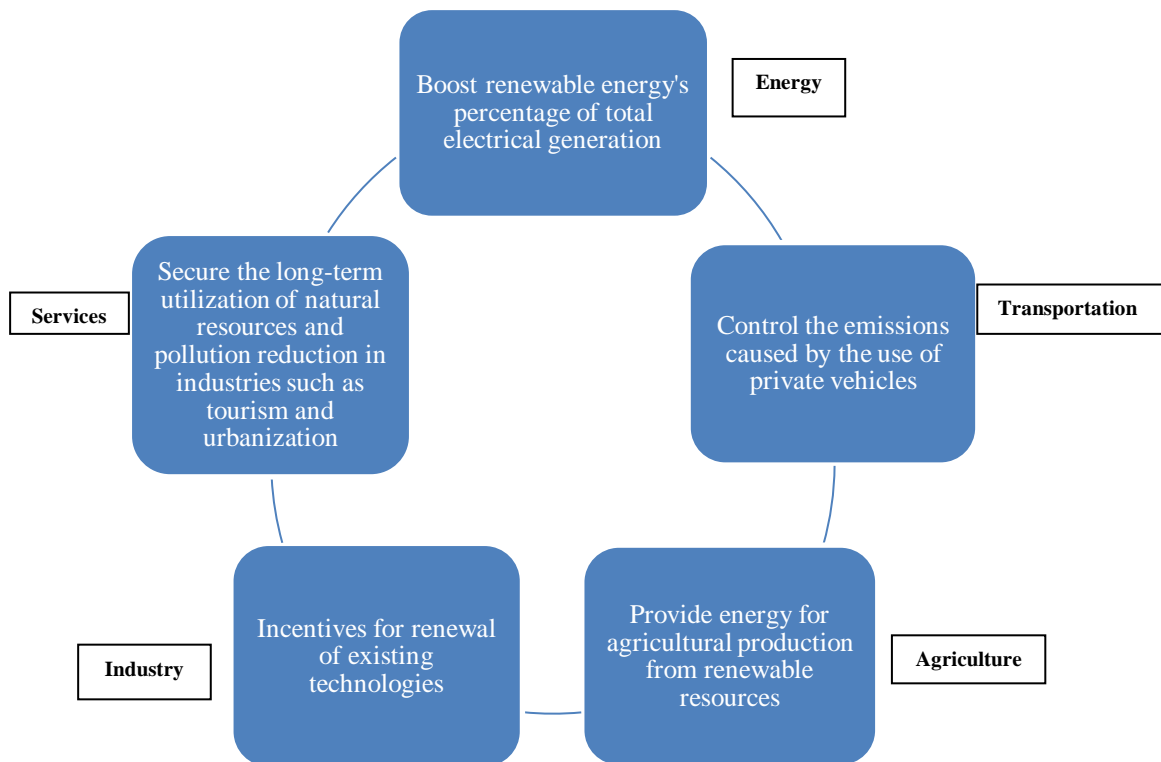


Figure 3.

Internal Coherence

Source: It has been prepared by the author.

3. Environmental Security

Environmental security and related concepts have become one of the problems that states have allocated a large place in their development and security policies in recent years. This concept is related to the use of natural resources such as water, energy, and food, as well as the supply and fair distribution of these natural resources. With climate change becoming more perceptible, the traditional understanding of security has changed and expanded to include environmental security.

Some studies define the concept from different angles. For example, emphasis is placed on the causes of environmental security (natural and unnatural) and the place of origin (within/across national borders), the consequences of biological threat (resource scarcity/social conflict), the method of struggle (proactive), and the level of scale for protection (global/local) (Zurlini & Müller, 2008: 1350-1356). Table 1 illustrates the studies and topics examined in the literature on environmental security. The literature on environmental security began with issues of conflict and disorder. In the 2000s, it was observed that these issues continued to be discussed in the literature.

Table 1
Literature Review on Environmental Security

Author(s)	Year	Topic
Thomas F. Homer-Dixon	1994	Implications of environmentally induced conflict.
Idean Salehyan	2008	The impact of climate change and related resource scarcity on political violence.
Gleditsch&Diehl	2000	The relationship between environmental degradation and conflicts.
Barnett	2001	The role of security-makers in environmental security.
Price-Smith	2001	The effects of global environmental change on the spread of disease.
Shlomi Dinar	2011	Aspects of environmental conflict and cooperation.
Chernova et.al	2021	Assessment of Russia's oil and gas sector from an environmental standpoint.

Source: Homer-Dixon, 1994; Salehyan, 2008; Gleditsch & Diehl, 2000; Barnett, 2001; Price-Smith, 2001; Dinar, 2011; Chernova et al., 2021.

According to Homer-Dixon (1994), there is a link between environmental scarcity and violence. Especially when the depletion of environmental resources is accompanied by population growth and inefficient distribution of resources, the extent of violence becomes greater. According to the author, when some countries have insufficient capacity to adapt to environmental degradation, they will not be able to adequately enforce international agreements that protect their interests. Salehyan (2008), on the other hand, is skeptical that resource scarcity caused by climate change directly causes political violence. According to the author, some political and social variables may be effective in the cause-effect relationship. Gleditsch & Diehl (2000) argue in their book that future sources of violent conflict may be environmental factors. The authors support these claims by citing numerous studies. Among these references, there are views such as environmental degradation can lead to resource wars, environmental impacts can make a country vulnerable to attack, and war can break out after environmental degradation. Criticizing the traditional security discourse, Barnett (2001) offers his readers a security concept based on environmental justice. According to Barnett, the root cause of environmental degradation should be sought in the “developed and underdeveloped” dynamic. In other words, while environmental insecurity is a problem of adaptation for developed countries, it is almost a struggle for existence for underdeveloped countries. Price-Smith (2001) focuses on health security, which is an element of environmental security. According to the author, health security, a concept that emerged after the cold war, should be considered among the non-military threats to national security. The main starting point of the author's claims is that human health is closely related to environmental health. Emphasizing the increasing

importance of health problems, he argues that there is a causal relationship between infectious disease and state capacity. Dinar (2011) develops a different perspective on the environmental problem. According to the author, environmental problems can lead to conflicts as stated in the literature, but they can also promote cooperation between states. However, the author emphasizes that cooperation is only a possibility and argues that environmental degradation alone may not be a factor that improves cooperation between states. Chernova et. al (2021), using the example of the oil and gas industry, states that economic arrangements should be made to protect the environment. These regulations should cover the modernization of production, compensation for economic damage caused by environmental damage and deterrence of penalties. Although awareness of the importance of the environment began in the 1960s, the real development of environmental security increased with the end of the cold war. Because after that period, security perceptions have changed, and military security understandings have expanded. As it can be understood from this, the connection between environmental security and violence is among the topics of interest today. Because the competition between states for water, minerals, and other natural resources continue, this competition can cause conflicts between countries. So much so that environmental problems are almost equated with military problems (Floyd, 2008: 51-65). Health and sectoral studies are also among the subjects examined concerning environmental security.

In recent years, the number of studies on food safety has been increasing in the literature on environmental safety. Increasing food prices due to the Covid-19 Pandemic and the Russia-Ukraine war have been effective in increasing food safety studies. The definition of food safety is generally based on the definition of Food and Agriculture Organization of the United Nations (FAO). According to FAO, food safety is “*state in which all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life*” (FAO, 1996). According to Pinstrup-Andersen, in order to talk about food security, first of all, sufficient food must be available at the global, national, and/or household level. It is possible to say that what the author means by food security here is whether a country has access to sufficient food to meet its nutritional needs (Pinstrup-Andersen, 2009: 5). It is important to measure food safety as well as define it. In this regard, individual and household surveys are generally used, and the level of food safety is tried to be measured by using information on food expenditure and nutritional diversity (Barrett, 2010: 826). One of the criteria in measuring food safety is access to food, but the lack of precise indicators in this regard makes measurement difficult. Therefore, studies on access to food

mainly focus on hunger (Webb et al., 2006: 1405-1406). According to Coates (2013), the measurement of food insecurity has become more difficult since the FAO's definition in 1996. According to the author, the concept of food sufficiency, nutrient adequacy, cultural acceptability, safety; and certainty and stability. Some of the studies on food safety focus on the factors affecting food safety. Campbell et al. (2016), climate change should be expected to have far-reaching effects on food security, and therefore action-oriented research and stakeholder-oriented options should be considered in food safety studies. In another study, it is expected that climate change will have a devastating effect, especially in underdeveloped countries, and therefore the factors affecting the adaptation of farmers to climate change have been investigated. According to the study findings, younger farmers and those with higher education levels are more likely to use these adaptation practices, the number of adaptation practices used is positively associated with education, male head of household, land size, household size, extension services, access to credit and wealth. (Ali & Erenstein, 2017). Tschardt et al. (2012) emphasize that rapid population growth poses a threat to food security and that small-scale farming is critical for global food security. In another study using the random sampling method, it was determined that the factors affecting household food insecurity are age, gender, education, remittances, unemployment, inflation, wealth and illness (Zhou et al., 2019). In the study, which evaluates food safety from a different perspective, it is argued that technical regulations alone are not sufficient to ensure food safety, in addition, an integrated food system should be established (Ericksen et al., 2009). As can be understood from the literature, the concept of food safety has been on the world agenda from past to present. Food security has a close relationship with sustainable development.

4. Methodology and Data Set

This study, which examines Turkey's food security, is a qualitative study. In this study, a qualitative content analysis of the documents published in the 2001-2020 period was carried out. For this purpose, primarily, some documents related to sustainable development, environmental security, and/or food security have been identified. Subsequently, the documents in question were examined in detail, and the emphasis on food security and/or it was analyzed. Table 2 shows the thirteen documents analyzed. Documents mainly belong to ministries. The two prominent ministries here are the Ministry of Development and Environment, Urbanism, and Climate Change. In recent years, the names of some ministries in Turkey have changed. Although the relevant document belongs to previous years, it is shown in the table as belonging to the current Ministry names.

In recent years, statements on climate change and environmental problems have been made and documents published under the Presidency of the Republic of Turkey. Addressing the issue at the presidential level shows the importance Turkey attaches to this issue. In this context, it is very important to work on sustainable development goals covering the years 2018-2020, in which the Sustainable Development Goals are evaluated.

Development plans are important in terms of sustainable development. Since this study covers the period of 2001-2020, the eighth five-year development plan is examined first. Finally, the eleventh development plan, covering the period of 2019-2023, is discussed. In addition to the development plans, the Sustainable Development Report prepared by the Ministry of Development is among the documents examined.

The documents of the Ministry of Environment, Urbanization, and Climate Change are also examined. This ministry is important in terms of showing Turkey's sensitivity to climate change and environmental security. "Climate change" was added to the name of the ministry later. In this study, information on food security in climate change, biodiversity, and EU integration strategy documents published by the Ministry is analyzed. Finally, a document review, including Turkey's sustainable development goals, is also carried out.

Table 2
Data Set

Presidency of the Republic of Turkey	Republic of Turkey Ministry of Development	Republic of Turkey Ministry of Environment, Urbanization and Climate Change	Republic of Turkey Ministry of Agriculture and Forestry
Turkey's 2nd VNR 2019 Sustainable Development Goals "Strong Round Towards Common Goals" (2019)	The Eight Five-Year Development Plan 2001-2005 (2001)	EU Integrated Approximation Strategy (UÇES) 2007-2023 (2006a)	Turkey's National Action Program On Combating Desertification (2006b)
2020 UN High-Level Political Forum Sustainable Development Goals 2018-2020 Developments In Turkey (2020)	The Ninth Development Plan 2007-2013 (2006)	First National Communication of Turkey on Climate Change (2007)	
	Turkey's Sustainable Development Report: Claiming the Future (2012)	National Biodiversity Strategy and Action Plan (2008)	
	The 10 th Development Plan 2014-2018 (2013)	EU Integrated Approximation Strategy (UÇES) 2016-2023 (2016)	
	Report on Turkey's Initial Steps towards the Implementation of the 2030 Agenda for Sustainable Development (2016)		
	The Eleventh Development Plan 2019-2023 (2019)		

Source: Republic of Turkey Ministry of Development (2001, 2006, 2012, 2013, 2016 and 2019; Ministry of Environment and Forestry (2006a, 2006b, and 2007); Anonymous, 2019; Presidency of Turkey, 2020; Republic of Turkey, 2007.

All documents were divided into four groups and common factors related to food security were determined by a content analysis method. These factors are shown in Figure 4.

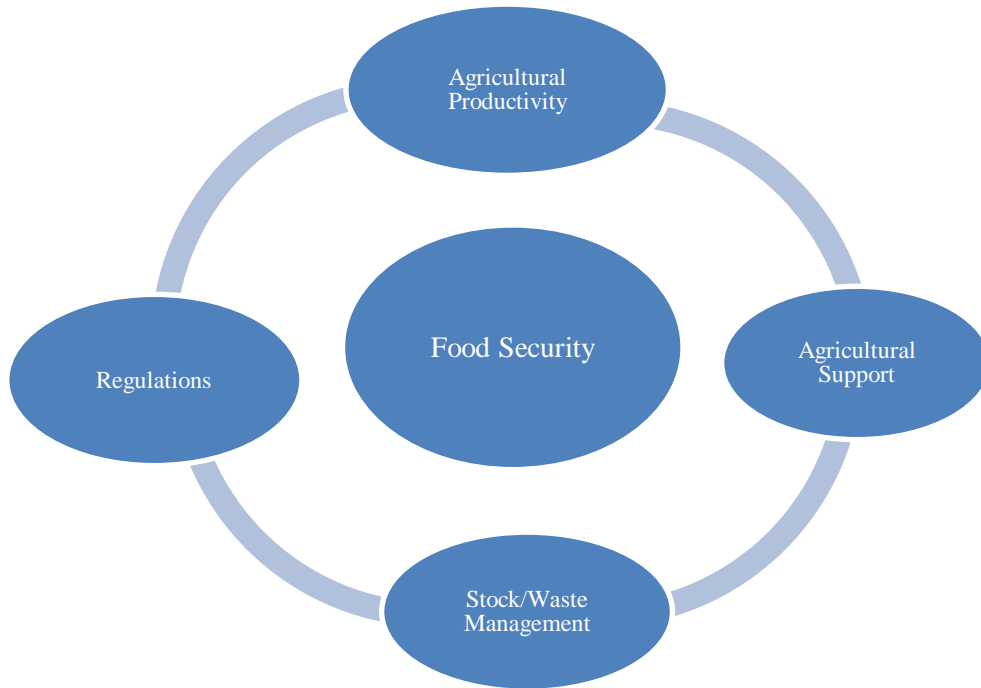


Figure 4.

Main Common Factors Related to Food Security in Selected Documents

Source: Republic of Turkey Ministry of Development (2001, 2006, 2012, 2013, 2016 and 2019); Ministry of Environment and Forestry, 2006a, 2006b and 2007; Government Turkey, 2019; Presidency of Turkey, 2020; Republic of Turkey, 2007.

5. Analysis of Common Concepts

In this section, the common concepts shown in Figure 4 and identified in the relevant documents related to Turkey's food security are analyzed. The purpose of this is to identify the keywords to which these concepts are related and to determine the context in which they are used in the documents.

5. 1. Agricultural Productivity

The agricultural sector is very important for our country due to the benefits it provides for both employment and development. Productivity in the agricultural sector has an important role in the development of our country and in the policy of combating climate change. Care should be taken to ensure that there is no loss of quality and employment in productivity-enhancing policies in the sector (Republic of Turkey Ministry of Development, 2012: 42). As a result of the document review, it has been determined that the concept of agricultural productivity is frequently used with the concepts of low cost, competitiveness, investment, human capital, renewable energy, and clean production.

Agricultural employment and the scale efficiency of agricultural enterprises are among the most important components of agricultural productivity. The fact that the labor force is concentrated in the agricultural sector with low productivity limits the effective functioning of the labor markets. In the first development plan (The Republic of Turkey Ministry of Development, 2001), which is the subject of the analysis, it is stated that agricultural employment is 45.1% of the total civilian employment and that the majority of the population earns their living from agriculture (Republic of Turkey Ministry of Development, 2021). Agricultural employment played an important role in the unemployment rate reaching 10.3 % in 2005. In the 5 years following the 2001 crisis, agricultural employment decreased by an annual average of 3.3 %. In other words, the decrease in agricultural employment was effective in limiting the effects of the increase in the growth rate of the period on employment. The scale efficiency of agricultural enterprises is included in the Ninth Development Plan. It is noteworthy to emphasize the effectiveness of a scale that is compatible with the environment and considers the integration of agriculture and industry (Republic of Turkey Ministry of Development, 2006). Agricultural employment and the scale efficiency of agricultural enterprises are included in the 10th Development Plan. Accordingly, agricultural employment increased by approximately 1.1 million people in the 2007-2012 period, but rural poverty remained a significant problem. The most important reason for this is that agricultural employment consists of subsistence enterprises with idle labor, and the enterprises have scale efficiency and marketing problems (Republic of Turkey Ministry of Development, 2013). While there was no emphasis on agricultural employment in the Eleventh Development Plan, attention was drawn to new generation practices and technology-based small agricultural enterprises, which have examples in the world regarding the scale efficiency of agricultural enterprises. In this context, it was stated that land acquisition studies should be carried out in order to protect and grow small family businesses (Republic of Turkey Ministry of Development, 2019).

Figure 5 shows the results of the analysis regarding agricultural productivity in the development plans for the relevant period. Accordingly, agricultural employment and the scale efficiency of agricultural enterprises are defined as two sub-elements of agricultural productivity. The sub-elements of agricultural employment include poverty, labor, and labor markets. In this context, the focus of development plans is to reduce rural poverty, work effectively in labor markets, and bring idle labor into production. The development of an environmentally sensitive competitive approach to ensure the scale efficiency of agricultural

enterprises, the integration of agriculture and industry, greater emphasis on small family businesses, and the realization of productivity increases by using technology more in these enterprises.

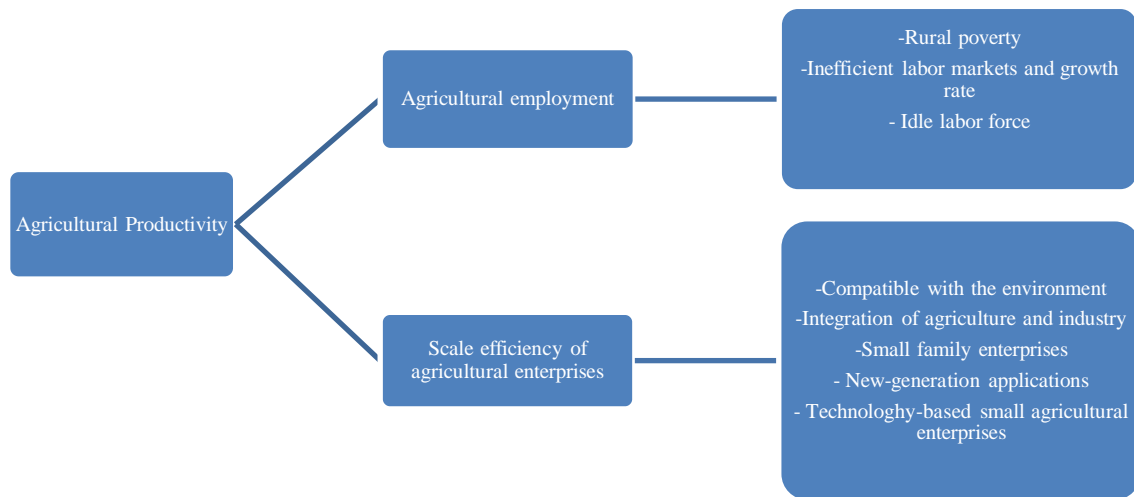


Figure 5.
The Concept of Agricultural Productivity in the Development Plans
Source: Republic of Turkey Ministry of Development (2001, 2006, 2013, and 2019).

5. 2. Agricultural Support

Some support is provided to the agricultural sector, which continues to be important for employment and nutrition. Some support is provided to contribute to food security. This includes price support for agricultural products or income support for producers. Sometimes, these supports may prevent the deterioration of price signals and the realization of effective production. For this reason, it is important that the support is in a way that ensures the continuity of production. Sustainable production, poverty, and adequate and balanced nutrition are associated with this concept.

In the Eight Development Plan, direct income support to farmers was mentioned for the first time, and it was stated that it would be implemented in the following years. In addition, the determination was expressed for the implementation of agricultural support during the plan period. Insufficient equity and low stock turnover rates of SEEs that purchase agricultural products were also among the issues highlighted. It is also included in the plan that the Support and Price Stabilization Fund resources and budget resources are used in agricultural support purchases (Republic of Turkey Ministry of Development, 2001). Wrong agricultural support policies are among the factors that cause the deterioration of public finances. Since 2001, direct

income support has been provided to farmers through the farmer registration system instead of price support (Republic of Turkey Ministry of Development, 2006). In 2009, an area-and product-based payments system started to be implemented instead of direct income support. Agricultural information systems required for this system have been established. It has been decided to organize agricultural support for social and production-oriented purposes, to take into account the environment, plant, animal, and human health, and to monitor the effectiveness of agricultural support. In addition, it was decided to expand the scope of certified production methods and agricultural insurance (Republic of Turkey Ministry of Development, 2013). There is no direct statement about agricultural support in the 11th Development Plan.

Figure 6 shows the contexts in which the concept of agricultural support in development plans is addressed. It has been determined that direct income support and field and product-based payments are the two sub-dimensions of agricultural support. It has been determined that the support and price stability fund and the farmer registration system come to the fore in the financing of direct income support. An area and product-based payment system, on the other hand, have started to be implemented in recent years. In this context, there are policy trends toward information systems, payment methods suitable for social purposes and products, supporting projects suitable for the environment and living life, and the implementation of certified products and agricultural insurance.

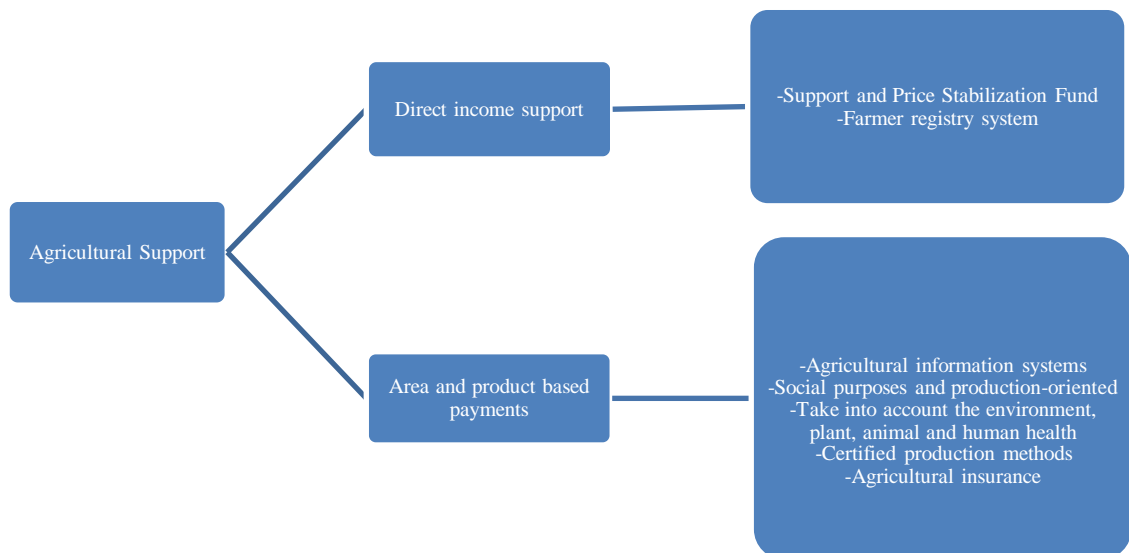


Figure 6.

The Concept of Agricultural Support in the Development Plans

Source: Republic of Turkey Ministry of Development (2001, 2006, 2013 and 2019).

5. 3. Stock/Waste Management

Stock/waste management is one of the components of sustainable food security. The most important function is to ensure the stability and efficiency of the production process by minimizing the losses in the time until the product reaches the consumer. It is used in relation to production, marketing, consumption chain, identification, and waste/stock management of aquaculture products.

In the examined period, stock management was first used to protect the producer and production level and was evaluated within the framework of risk management tools. In this context, it was decided to determine the price difference between the buying and selling prices and to announce them simultaneously. It was emphasized that in the first years of solid waste management, due to the incomplete and inaccurate amount and quality of data, the policies could not be implemented effectively, and because there was no policy at the national level, high-cost technological solutions had to be applied. In order to eliminate this deficiency, it was decided to plan and implement solid waste management holistically and from a single center. It was stated that necessary changes should be made in the legislation and local government law in this regard (Republic of Turkey Ministry of Development, 2021). While there is no direct statement about stock management in the 9th Development Plan, it has been stated that the deficiencies regarding waste management continue and some arrangements should be made in this regard. One of the biggest obstacles to regulation is the high investment costs. Although it was stated that new financing methods would be developed for this problem, it was also emphasized that this would take a long time. Landfills are indicated as an alternative to high-cost technology investments (Republic of Turkey Ministry of Development, 2006). In the 10th development plan, the importance of implementing effective stock management for stability in product markets and farmer incomes related to stock management has been mentioned. Despite the fact that the population of municipalities benefiting from landfills increased by approximately one hundred percent between 2006 and 2012, insufficient standards for secondary products was identified as a problem. In this regard, the need for holistic policies and the importance of raising awareness and improving institutional capacity were emphasized (Republic of Turkey Ministry of Development, 2006). While there is not direct statement on stock management in the 11th Development Plan, it is stated that the objectives of solid waste management are to minimize the negative effects of waste on human health and the environment. In addition, the importance of holistic policies in technical and financial terms

was emphasized again, and the necessity of public-private cooperation was emphasized (Republic of Turkey Ministry of Development, 2006).

Figure 7 shows the analysis of stock and waste management as included in the development plans. Protecting the producer and the production level is one of the main objectives. Managing the risk and considering price differences are determined as sub-policy elements. Another purpose determined in this context is related to solid waste management. In this context, there are sub-policies such as encouraging recycling and reuse, reducing costs, encouraging public-private cooperation, utilizing storage, and utilizing technology.

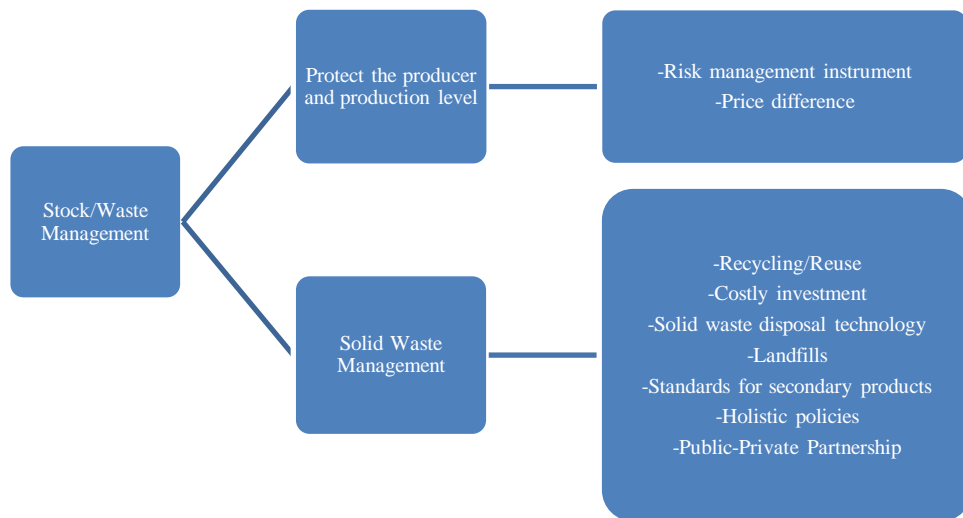


Figure 7.

The Concept of Stock/Waste Management in the Development Plans

Source: Republic of Turkey Ministry of Development (2001, 2006, 2013, and 2019).

5. 4. Regulations

Regulations for food security should aim at protecting natural resources, not threatening environmental security and the continuity of the product supply chain. Regulations have an important role in ensuring food security by supporting agricultural production. Pollution and legal regulations for the protection of natural resources ensure the longevity of the agricultural sector. Effective production, natural resources, environmental security, and sustainable agriculture are used in this context.

Regulations are related to supervision and control and therefore need to be considered together. Food inspection is also a part of it. For this reason, it is important for the effectiveness of the audit to include the private sector as well as the public. Plant and animal products are also within the scope of these regulations as an element of agricultural production. The soil

must be protected and used sustainably in terms of food security. It is essential to prepare a land-use plan by enacting a law for this purpose. In addition, the preparation of the Basic Law of Agriculture in order to examine the agricultural sector from a holistic perspective was also included in the development plans. Another important issue in terms of food security is securing the stages from production to marketing. For this purpose, non-profit, non-governmental organizations play an important role. With the Producer Unions Law, both these NGOs were established, and farmers were supported (Republic of Turkey Ministry of Development, 2006) (Republic of Turkey Ministry of Development, 2013). With the inheritance law of the Turkish Civil Code, solutions were found to the problem of land fragmentation, and initiatives were made for the efficient use of land resources with the Soil Conservation and Land Use Law (Republic of Turkey Ministry of Development, 2019). The establishment of an inspection system based on risk assessment in terms of the security of agricultural products and the effective implementation of biosecurity criteria are included in the 10th Development Plan. A part of food control and inspection is to reach international quality standards. For this reason, it should be ensured that commercial quality inspections are implemented effectively, and the image of agricultural products is protected. It was decided to establish a Product Surveillance Mechanism to control price fluctuations in food products (Republic of Turkey Ministry of Development, 2013).

The results of the document analysis regarding the regulations are shown in Figure 8. Two main policies that stand out in this context are legal regulations and food inspection and control. Since some legal regulations are included in the development plans more than once, such laws were written once. Effective implementation of legal regulations depends on inspections and controls. The inspections and controls are carried out according to certain criteria and standards.

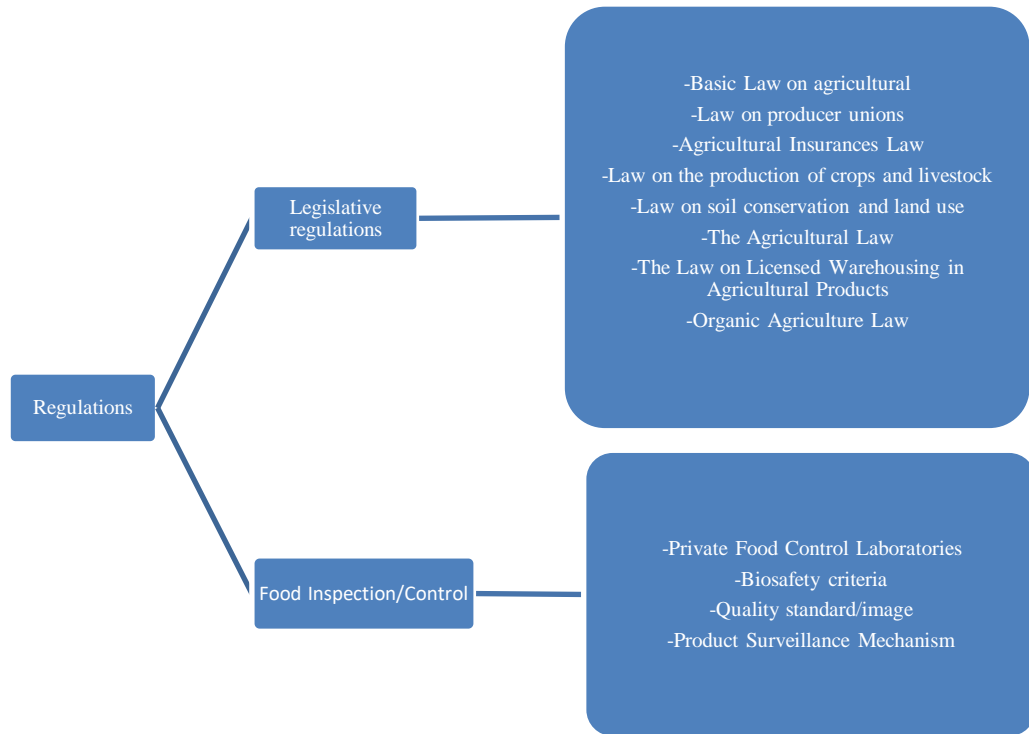


Figure 8.

The Concept of Regulations in the Development Plans

Source: Republic of Turkey Ministry of Development (2001, 2006, 2013 and 2019).

6. Conclusion

It is possible to evaluate the concepts related to food safety at the individual, household and national level. The feature of utilization at the point of examining the concept at the individual level; when examined at the household level, accessibility feature and when considered at the national level, availability feature stands out. Utilization is about access to improved water resources and sanitary facilities. Accessibility includes asphalt and railways, as well as the domestic food price level index and the prevalence of food shortages. Availability includes average animal protein, average dietary energy supply adequacy, and average value of food production (Peng & Berry, 2019).

Depending on the development plans in this article, it aims to evaluate the consistency between Turkey's policies related to food security. In recent years, Turkey has been determined to update its policies in accordance with sustainable development goals. The political understanding of the political understanding, which takes into account the health of the environment and other living things, benefits from the new generation of applications and technology, which is important to the new needs, adopting laws to the new needs, and adopting

the understanding of international standards and quality understanding in the latest years of development plans, As a result of this understanding, Turkey's rural poverty reduction program, in the correction of the rural sector's income distribution, has achieved successful results in increasing agricultural efficiency. In addition, agricultural support, agricultural risk management, diversification of genetic resources, and support of agricultural technology guarantee the manufacturer's legal regulations and raw material supply in Turkey's awareness-enhancing policy applications. However, it is a reality that the steps to be taken in accordance with the sustainable development objectives for food security and that policy consistency should be ensured. As a result of the analysis of development plans, the areas that need to be supported in the world of inflationary effects that are likely to be felt in the world are listed in the coming period:

- (1) Reducing the financial difficulties faced by small agricultural enterprises,
- (2) Implementation of rural employment policies,
- (3) To achieve adequate levels of biodiversity for a possible food crisis,
- (4) Deepening of public and private sector cooperation,
- (5) Ensuring the appropriate infrastructure and technology to follow the agricultural database and statistics,
- (6) Providing tempting information for waste management and providing adequate technological support,
- (7) Separation of more resources for agricultural research and development activities,
- (8) Agricultural research-development activities Implementation of domestic and national projects to ensure food security,
- (9) Implementation of policy measures to enable agricultural markets to function effectively, as well as the necessary legal regulations in labor markets that are in harmony.

Measures above Turkey's development plans in Turkey's development plans, but in the case of full implementation and implementing Turkey's contribution to food security, are most likely to be the most measures. In other words, the high benefits can be achieved at a low cost, and Turkey's 2030 is a policy measure that can achieve sustainable development goals. It is foreseen that more precise results can be obtained in the short term if the existing cooperation is deepened between various ministries and institutions in accordance with these objectives. The implementation of policies that are likely to be implemented on these problems in the development plans in the coming years will ensure significant gains in domestic and foreign policy.

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