

## THE ROLE OF AGRICULTURAL SUPPORTS IN SUSTAINABLE RURAL DEVELOPMENT: THE CASE OF TURKEY

Sema Konyali, Yasemin Oraman

*Tekirdağ Namık Kemal University, Faculty of Agriculture, Department of Agricultural Economics, Turkey*

**Abstract:** Sustainable rural development is vital to the economic, social and environmental viability of nations. It is essential for poverty eradication since global poverty is overwhelmingly rural. Rural development should be viewed as the core of any viable strategy for national development in developing countries where an average 2/3 of the population live in rural areas. It is important for agriculture to keep rural population in place by developing the rural and increasing its attractiveness. Agriculture is the primary means of living in countryside throughout the world. Therefore, it is evident that agricultural supports are effective in reducing poverty in rural parts of the country and ensuring sustainability.

Turkey’s agricultural economy is among the top ten in the world, with half of the country consisting of agricultural land and nearly a quarter of the population employed in agriculture. But, the rapid industrialization of Turkey after 1930's and government policies caused agriculture's share to decline in overall income. This caused the fall of economic standards of the farmers and contributed to emigration from rural to urban areas. Agricultural supports given to producers are important in order to keep the rural population in place. However in Turkey, agricultural supports meet a small portion of the input cost of the producer and the increase in input prices is higher than the increase in product prices. Some years, supports are insufficient for producers. According to the agreement with the IMF's agricultural support, it is limited to 1% of GDP (Gross Domestic Product). But the producers have taken only the half of their support. These supports must be increased for protecting producers. Because the input prices are very high in Turkey and producers are affected negatively. Supports should increase the farmer’s income and resolve the structural problems of the sector in order to build a sector that is competitive and independent. However, such supports are not alone sufficient in explaining farmer welfare and rural poverty. There are several natural, economic, social, cultural, and even political factors affecting agricultural and rural welfare levels. The sources allocated to rural development projects that contribute to reverse the migration trends by improving the working and living conditions in rural spaces must be increased. Because developing the farmer means developing the agriculture, economy and country. Therefore, it is extremely important to implement consistent and sustainable agricultural policies in agriculture.

In this research, the current situation of agricultural support policies, their effects to farmers and to sustainable rural development were evaluated and solutions were offered regarding these problems.

**Keywords:** sustainable rural development, agricultural supports, producer, support policy, Turkey.

### Introduction

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The aim of sustainable development is to balance our economic, environmental and social needs, allowing prosperity for now and future generations. Sustainable development consists of a long-term, integrated approach to developing and achieving a healthy community by jointly addressing economic, environmental, and social issues, whilst avoiding the over consumption of key natural resources.

Sustainable rural development can be defined as a process of multidimensional change affecting rural systems (Polidori and Romano 1996). Economic growth, improvement of social conditions, and conservation of natural values are all important features in sustainable rural development. Rural development is the process of improving the quality of life and well being of people living in rural areas. The objectives of rural development include alleviation of poverty and unemployment through creating basic social and economic infrastructure, to provide training to rural unemployed youth and to provide employment to marginal farmers/labourers to discourage seasonal and permanent migration to urban areas. Agriculture is therefore the primary means of living in countryside throughout the world.

Turkey's agricultural economy is among the top ten in the world, with half of the country consisting of agricultural land and nearly a quarter of the population employed in agriculture. Turkey is a major producer of wheat, sugar beets, milk, poultry, cotton, tomatoes and other fruits and vegetables, and is the top producer in the world for apricots and hazelnuts. As inputs to animal feed for its meat and rapidly growing poultry sector, Turkey import oilseeds, including soybeans and meals, as well as grain products. Turkey also imports additional cotton as an input for its advanced textile sector, and inputs for its food processing and bakery sector.

The rapid industrialization of Turkey after 1930's and government policies caused agriculture's share to decline in overall income. The importance of agriculture in the economy of Turkey and other countries is measured as the value added of the agricultural sector as percent of GDP. In 2017, agriculture contributed 6.08% to GDP, while 54.92% in 1960. It is also contributed 7.75% in five years ago. The share of agriculture in GDP has gradually decreased but the agricultural sector is still of substantial importance to the Turkish economy. Supports which applied for the solution of economic and social problems have very important especially with the development of social state concept. Almost all countries in the world consider agriculture as a strategic and vital sector for their nations and therefore they support it. In Turkey, farmers are supported by government but agricultural supports are insufficient for most of them. Because the input prices are very high in Turkey and producers are affected negatively. For this, input prices should be decreased for increasing production and producer's income. Also, producers should be supported sufficiently. Also, producers should be supported sufficiently because agricultural supports are important in order to keep the rural population in place and provide sustainable rural development.

This study aimed to review the current situation of agricultural support policies, their effects to farmers and to sustainable rural development and provide solutions regarding these problems.

### **Agriculture Sector in Turkey**

#### **Agricultural Products and Trade**

Turkey is considered to be one of the leading countries in the world in the field of agriculture and food with its favorable geographical conditions and climate, large arable lands, and abundant water supplies. Land structure and climatic characteristics of Turkey provided different geographical region and microclimate to be formed. There is a positive relation between land use and land structure of geographical regions, climatic characteristics in Turkey. So, forestry in humid regions, livestock in high, mountainous and arid regions and vegetative production in every regions can be done in Turkey. These characteristics make it possible to produce specific agricultural product in different ecologic regions (Armağan 2008).

Turkey is a very favorable position in terms of agricultural production potential. It has two of the world's oldest agricultural production areas in the Anatolia and Thrace regions. Turkey has ranked in the top-10 in production of 55 products. Turkey is the biggest grower in the world in hazelnut, apricot, fig, cherry, quinces, second biggest grower in melon, honey and leek, third biggest grower in lentils, apple, tomatoes, green pepper, mandarins, watermelon and chestnut. In Turkey, wheat is the most produced commodity according to the Table 1. Second commodity is sugar beet, third one is milk, whole fresh cow. As can be seen from the Table 1, with these commodities, only milk (whole

fresh cow) is animal product, all others are vegetal. This also shows that Turkey’s production level is very low in animal products.

**Table 1.** Top ten commodities production quantity in Turkey (2017)

Commodity	Quantity (tonnes)
Wheat	21.500.000
Sugar beet	20.828.316
Milk, whole fresh cow	18.762.319
Tomatoes	12.750.000
Barley	7.100.000
Maize	5.900.000
Potatoes	4.800.000
Grapes	4.200.000
Watermelons	4.011.313
Apples	3.032.164

*Source: FAO, 2019*

Turkey exports many agricultural products such as cereals, pulses, industrial crops, sugar, nuts, fresh and dried fruits, vegetables, sunflower oil, and livestock products. Table 2 shows top ten commodities export quantity in Turkey. Flour of wheat is the most exported commodity. Turkey has been the world’s top flour exporter over the last five years, accounting for one-third of all flour exports. In 2017, Turkey exported 3.6 million tonnes of flour worth \$1.1 billion. Macaroni, tangerines, sunflower oil, tomatoes and lemons follow flour wheat. Chicken meat is the only animal product among them and it is ranked as 8th. The main export markets are the European Union, the United States, and the Middle East. Around 19.2% of total employment in Turkey in 2018 was in agriculture sector, and total exports of agricultural products passes 18 billion USD (as of 2018).

**Table 2.** Top ten commodities export quantity in Turkey (2017)

Commodity	Quantity (tonnes)
Flour of wheat	3.549.987
Macaroni	1.007.737
Tangerines, mandarins, clem.	698.474
Sunflower oil	537.436
Tomatoes	522.876
Lemons and limes	470.585
Waters, ice etc.	424.388
Chicken meat	405.030
Oranges	390.159
Eggs, hen, in shell	348.208

*Source: FAO, 2019*

Although Turkey was a net exporter from 1994 to 2000 years, after 2001 year Turkey's agricultural exports and imports have increased together, and the gap between exports and imports has started to narrow in last years. In recent years, the increase in agricultural imports has been higher than that of exports. The rapid increase in agricultural imports of Turkey may be associated with changes in some macroeconomic variables such as economic growth, real exchange rate, export and import prices, and producer prices (Sertoglu and Dogan 2016).

Table 3 shows top ten commodities import quantity in Turkey. Wheat is the most imported commodity while soybeans is second and maize is third. As can be seen from the table, there are not any animal products imported in top ten. Turkey has imported commodities mainly from Russia, USA, Ukraine and Brazil.

**Table 3.** Top ten commodities import quantity in Turkey (2017)

Commodity	Quantity (tonnes)
Wheat	4.990.865
Soybeans	2.340.974
Maize	2.055.543
Dregs from brewing, distillation	1.785.908
Bran, wheat	1.700.848
Cake, sunflower	965.137
Cotton lint	914.377
Cake, soybeans	759.203
Oil, sunflower	660.682
Sunflower seed	640.442

*Source: FAO, 2019*

### Land Use

Land is a finite resource for which the competition is intensifying because of rapid urbanization, growing populations, economic necessities etc. (Enemark 2005). In Turkey, applications and activities for the use, acquisition and arrangements of land tenure rights are executed under the authorization and responsibilities of a variety of public institutions in terms of concerned legislative framework (Ulger et al., 2018). The land use which is very important for sustainable development should be activated with the policies, planning or obligations by the states because of being insufficient and not renewable source and impossibility of accelerate of land formation time.

**Table 4.** Evolution of Land Use in Turkey (2017)

	Area (Millions of ha)				Annual growth rate (%)
	2002	2010	2015	2017	2002-2017
Agricultural Land	41.19	39.01	38.55	38.01	-7.7
<i>Arable Land</i>	23.99	21.38	20.65	20.04	-16.5
<i>Permanent Crops</i>	2.58	3.01	3.28	3.35	29.8
<i>Permanent Meadows and Pasture</i>	14.62	14.62	14.62	14.62	-
Forest Land	10.37	11.20	11.72	11.72	13.0
Other	25.39	26.75	26.70	27.25	7.3
Total Land Area	76.95	76.96	76.97	76.98	0.03
Share of Total Agricultural Land (%)	53.5	50.7	50.1	49.4	-

*Source: FAO, 2019*

Table 4 shows the evolution of land use in Turkey. It contains the total land area for three different types of land use: agricultural land, forest land, and other. Agricultural land is further divided into arable land - land cultivated for crops like wheat, maize, and rice that are replanted after each harvest, permanent crops - land cultivated for crops like citrus, coffee, and rubber that are not

replanted after each harvest, and includes land under flowering shrubs, fruit trees, nut trees, and vines, and permanent meadows and pastures land used for at least five years or more to grow herbaceous forage, either cultivated or growing naturally; forest area is land spanning more than 0.5 hectare with trees higher than five meters and a canopy cover of more than 10% to include windbreaks, shelterbelts, and corridors of trees greater than 0.5 hectare and at least 20 m wide; land classified as other includes built-up areas, roads and other transportation features, barren land, or wasteland.

In the table, while agricultural land decrease, forest land and other land increase between the period of 2002-2017. In 2017, agricultural land as a share of land area for Turkey was 49.4%. Though Turkey agricultural land as a share of land area fluctuated substantially in recent years, it tended to decrease through 2002 - 2017 period ending at 49.4 % in 2017.

### **Basic Indicators in Agriculture**

Agriculture is a panacea for economic growth (Myrdal, 1984). Agriculture is the primary staple of economic growth, development and poverty eradication in the developing countries.

The agricultural sector has a very important role in terms of Turkey's economy and the world economy. According to the Turkish Statistics Institute, the number of people actively engaged in agriculture, presently 20-25% of the total labour force. This ratio can be seen as 6.3% in Turkish Statistical Institute (TURKSTAT) data (Table 5). Because, in Turkey a number of significant changes have been introduced into the administrative structure of municipalities and special provincial administrations through the "New Metropolitan" Law No.6360 enacted in 2012. In this context, villages have turned into neighbourhood. Therefore, rural population has decreased since 2012.

Approximately, 3 million farm units operate in the agricultural sector with an average farm size of around 6.5 ha. However, the share of agriculture in Turkish GDP has progressively decreased due to significant increases in industrial production, construction and services sectors, leaving agriculture with a share of just 6 % (Table 5). Decreasing of agriculture sector share in Turkey is the result of giving more importance to the developments in industrialisation and service sectors (Miran 2005).

**Table 5.** Basic Indicators in Agriculture (2012-2018)

Basic Indicators	2002			2018		
	Turkey	Agriculture	Agriculture share (%)	Turkey	Agriculture	Agriculture share (%)
Population (Million)	69,3	23,7	34,2	82,3	6,3	7,7
Employment (Million)	21,3	7,4	34,9	28,7	5,3	18,4
GDP (Billion \$)	230,5	23,7	10,3	789,0	43,2	5,8
Exports (Billion \$)	36,0	4,0	11,2	167,9	17,9*	10,7
Imports (Billion \$)	51,5	3,9	7,7	223,0	10,7*	9,4

*Source: TURKSTAT, Republic of Turkey Ministry of Agriculture and Forestry datas, 2019*

*\* In 2018, agriculture export and import include foodstuffs, agricultural raw materials and agricultural products.*

Turkey's economy uses an important source in terms of labor force in agriculture. With 5.3 million people, the agricultural sector covers 18.4% of the total employment as of 2018. This ratio was 21.3% fifteen years ago (Table 5).

Gross domestic product (GDP) is the total value of all goods and services produced in a country in a year. It is considered an important indicator of the economic strength of a country. In 2018, GDP in Turkey amounted to around 789 billion U.S. dollars. Although GDP was increased

according to the years, share of agriculture in GDP was decreased. But the agricultural sector is still of substantial importance to the Turkish economy.

According to the Turkish Statistical Institute, while Turkey's export was nearly \$157 billion in 2017, in 2018 it was reached an all-time high of \$167.9 billion. It can see from Table 5, in 2018 Turkey realized import more than export. Although Turkey imported 223 billion \$ worth of goods from around the globe in 2018, this value was decreased by the ratio of -7.9% since 2014 and by -4.6% from 2017 to 2018. While the share of agriculture in export is realized as 10,7% in 2018, in import it is realized as 9,4%.

### **Agricultural Support Policies**

Agricultural policies and support aim to ensure food security, protect family businesses and prevent low profits in agriculture (Yavuz 2019). Every country in the world supports its agriculture. Because guaranteeing the nutrient needs of people is one of the most important issues for countries. All of the government's expenditure for the agricultural sector aims to support agriculture. Supporting is the measures taken to protect agriculture, encourage of agricultural activities and promote sustainable development.

It is possible to distinguish two different groups in terms of support channels for agricultural support policies. The first is the support given on the output. A large part of the support given over the output is the direct intervention in the market price (Soyak, 1996). Intervention to the price of the product, also called market price support (MPS), takes place in the form of determining the unit price for the agricultural product and taking it at this price. The main purpose of the market price support program is to provide price stability in agricultural products and to support both producers and consumers (Aktaş, Altıok, & Songur, 2015). Despite this aim, the market price support program, which was implemented during the 1980s, was unfortunately not achieved. On the contrary, the prices of agricultural products have shown a great decline in these years. This decline in prices has become the main target in the world to change these policies so that they do not create excess supply, since the prices that cause excess supply are a result of direct intervention policies (Aktaş, Altıok, & Songur, 2015).

The second group of agricultural support policies is the support made without intervention in the price of the product. These are direct income support and indirect income support. By its simplest definition, direct income support refers to income payments, independent or to some extent dependent on production. The direct income policy, which has begun to find more application areas by abandoning the market price support at certain rates, aims to support the producers without interfering with the price of agricultural products. In this system, product prices will be formed on the market, so production will be determined according to market signals and price distortions caused by incompatibility of supply and demand will be prevented. The main objective of this system is to aid poor producers and is implemented in countries with supply surplus (Yapar, 2005).

Another type of agricultural support without price intervention is indirect income support. It is support for the inputs that have an effect on the quantity and quality of production. These include subsidies such as tax reduction, capital grants, credit support, reduction in interest rates on loans, and input subsidies for fertilizers, medicines, irrigation, seed, transport, energy and insurance and storage for plant production (Aktaş et al., 2015).

In Turkey, various agricultural policy implementations and tools have been used since the proclamation of the republic, especially since the beginning of planned periods in 1963. With the beginning of planned period, agricultural support policies have been implemented in five-year plans, regulated in annual programs and maintained with agricultural support purchases for years. However, support purchases became secondary issues in economy policy implementations after 1980. The number of supported products was rapidly decreased from 29 to 22 in 1980, to 13 in 1985, and to 10 in 1990. The number was again raised in 1991 and 1992, respectively to 24 and 26. With economic stability measures on 5 April 1994, price-guaranteed support purchases were limited with cereals, tobacco, and sugar beet (Abay, Sayan, Miran, & Bayaner, 2001).

The greatest renovation in Turkish agricultural support policies was implemented at the beginning of 2000s with Agricultural Reforms Implementation Project (ARIP) including Direct Income Support (DIS). Direct Income Support was proposed as an alternative to already implemented support policies. DIS implementations resulted in termination of some other supports and direct supports reached to a share of 78% in entire supports in 2002. However, in 2006-2010 Agricultural Law and Strategy Document, it was decided that 78% share allocated for direct supports should be gradually reduced to 45% (Karaman and Yavuz, 2012). Direct Income Support implementations were terminated in 2008.

Current agricultural supports implemented in Turkey can be classified under plant production supports, animal production supports, structural improvement supports, rural development, and environmental supports. Various biological control supports, fuel, fertilizer and soil analyses supports, agricultural consultancy, and farm accounting data network registration supports are the supports provided to improve agricultural infrastructure. The support program for rural development investments (KKYDP) and environment-oriented agricultural land preservation (CATAK) project are also among the policies implemented by the ministry within the scope of rural development and environment. In addition, 50% state supported agricultural insurance (TARSIM) implementations are provided as a policy tool for risk management and stable producer income (Tan et al., 2016).

In Turkey, supports are being implemented in plant production as fuel, fertilizer, soil analyses, biologic control, agricultural consultancy, and farm accounting data system registration supports. Supports are also provided in animal production activities as to improve yields, preserve gene sources, and have alternative income sources. Also, 50% grant supports are provided to agricultural projects to provide the agriculture-industry integration. Land consolidation and agricultural insurance implementations are also performed to strengthen agricultural infrastructure and to improve producer incomes (Tan et al., 2016).

In 2016, Turkey introduced of the reform of the "Basin Based Support Programme" differentiating between crops eligible for deficiency payments in order to rationalise the production structure based on the most suitable ecological conditions. Furthermore, Turkey announced that from 2017, output based deficiency payments would be replaced by an area payment for specific crops (Anonymous, 2017). According to Turkey's Agricultural "Basin Based Support Programme", which came into force in 2017, farmers can only receive subsidies if they have planted crops that the government deems suitable for their region and has put on the basin list for their particular location.

Turkey also introduced two other payment schemes in 2016. One of is the "Younger Farmers Project" provides who are literate and unemployed farmers under 41 years old with the objective to attract the young generation to agriculture and to increase employment in rural areas. Another is, a new area based payment was introduced for small family farms cultivating less than 0.5 hectare of land.

The payments made to agriculture based on types of support are provided in Table 6. During the last 10 years, while the support provided to agriculture was 5.850 million TL in 2008, the value increased three folds and reached to 14.526 million TL in 2018. Considering the distribution of these supports to area of support, it was observed that area-based direct income supports, compensation payments, subsidies, and livestock supports increased in time. Rural development supports increased from the year of 2006 as a part of Agricultural Reforms Implementation Project. The supports allocated for agricultural insurances started to be implemented with the inaction of TARSIM law in 2006. For once only, drought support was provided in 2007 with global climate crises and freeze support was provided in 2010. In addition, rural development investments support and young farmer project support were provided in 2018.

**Table 6.** Distribution of Agricultural Supports Based on Years and Types

<b>Type of Support (million TL)</b>	<b>2008</b>	<b>2010</b>	<b>2012</b>	<b>2014</b>	<b>2016</b>	<b>2018</b>
Area-based supports and DIS	1.953	1.859	2.167	2.406	2.695	3.561
Subsidies	1.647	2.071	2.379	2.691	3.129	3.624
Livestock supports	1.330	1.193	2.216	2.589	3.002	3.745
Supports related to Agricultural Reforms Project	34	0	0	0	0	0
Agricultural insurance	55	81	263	357	704	1.061
Compensation payments	80	77	99	123	168	206
Other agricultural supports	93	124	194	274	394	850
Rural development supports	109	284	196	313	958	686
Rural Development Program (IPARD) supports	0	0	39	303	210	218
Drought support	549	0	0	0	0	0
Freeze disaster	0	128	0	0	0	0
Rural Development Investments (Gap provinces)	0	0	0	0	0	72
Young Farmer Project support	0	0	0	0	0	503
<b>TOTAL</b>	<b>5.850</b>	<b>5.817</b>	<b>7.553</b>	<b>9.056</b>	<b>11.260</b>	<b>14.526</b>

*Source: MAF, Ministry of Agriculture and Forestry, Annual Activity Report.2018.*

Due to the importance and multifunctional nature of agriculture, attention will be given to provide that the funds allocated for agricultural support (Tanrıvermiş, H., and Bülbül., M, 2007). However, according to Agricultural Law Nr. 5488, 25.04.2006 dated, finance of agricultural program supports will be provide internal and external sources of budget and amount of these sources that will provide from budget can not be less than 1% of GNP (Gross National Product) (Official Gazette, 2006).

Budget is a fiscal tool in the hands of the government which is effectively used for the accomplishment of various socio-economic objectives. Budget is the most potent instrument of the government in carrying out its policies. Therefore, as it was in legislation, security, justice, education, and health sectors, budget sizes and shares are also significant issues in agricultural sector (Tan et al., 2016).

The share of agriculture in county budget of Turkey during the last 10 years is provided in Table 7. While central administration budget size of agriculture was 5.555 million TL (Turkish Lira) in 2007, the value reached to 12.838 million TL in 2017. The share of central administration budget size of agriculture in GDP did not exhibit many changes in years and observed as between 0.4-0.6%. The share of central budget allocated to agriculture in total budget was 2.7% in 2007. The value decreased to 2.0% in 2017. While the share of agricultural supports in interest-free management expenses was 3.6% in 2007, the value decreased to 2.2% in 2017. As an important indicator, considering the increases in annual central administration budgets in agriculture, the increase was 17.0 % in 2007 compared to previous year. In 2009, the ratio decreased by 22.6%. The basic reason for this decrease was global climate crises and consequent global economic crises experienced in 2007. In subsequent years, the increase ratios were observed as 19.7% in 2011, 15.0% in 2013, 9.0% in 2015 and 11.7% in 2017.

**Table 7.** Shares of Agricultural Support Payments in Budget

	2007	2009	2011	2013	2015	2017
Central administration budget sizes in agriculture (million TL)	5.555	4.495	6.961	8.684	9.971	12.838
Shares of central administration budget sizes of agriculture in GDP (%)	0.6	0.4	0.5	0.5	0.4	0.4
Shares of central administration budget sizes of agriculture in total budget (%)	2.7	1.7	2.2	2.1	2.0	2.0
Shares of central administration expenses of agriculture in interest-free management expenses (%)	3.6	2.1	2.6	2.4	2.2	2.2
Year-on-year changes in central administration budgets in agriculture (%)	17.0	-22.6	19.7	15.0	9.0	11.7

*Source: Republic of Turkey Ministry of Treasury and Finance, 2018*

According to the years in Turkey, despite the increase in subsidies to agriculture, the share of agriculture in GDP and in total budget has declined. This may show the inefficiencies of support tools. Agricultural supports are important for farmers to keep the rural population in place. One of the main characteristics of the Turkish agriculture is that it is based on small-scale family farms. Therefore, small farmers are greatly affected by the agricultural subsidies implemented. In order to ensure sustainable rural development, especially small farmers' income should be increased each year with agricultural supports and resolve the structural problems of the sector in order to build a sector that is competitive and independent.

### **Results and discussion**

Turkey is one of the largest agricultural producers of the world. Turkey has fertile soil, sufficient water, a suitable climate to make agriculture. This has allowed Turkey to become the largest producer and exporter of agricultural products in the Near East and North African regions. Turkey is in the top lines in numerous agricultural product listings in the world. As of 2017, Turkey takes place as the first country in the world listing of hazelnut, apricot, cherry, quinces and fig productions in terms of monetary value.

Turkey exports 730 varieties of agricultural products to 186 countries. In these productions the total export value is 18 billion USD (around 15,7 billion Euro). Turkey's total import value is approximately 11,5 billion USD (around 10 billion Euro). However, the rate of increase in imports realized higher than exports in recent years. In order to ensure the sustainability of agriculture, it is important to increase production and export and to take necessary measures for this purpose.

In terms of agricultural lands, Turkey is also one of the largest countries in the world. About 26.1% of the country are arable lands and 15% consists of forests. However 2002 - 2017 period annual growth rate of agricultural land decreased because of decrease in arable land. One of the major problems facing agriculture is the loss of agricultural land, because as more land is lost, it will become more difficult to produce the amount of food needed to feed the growing human population. Therefore, agricultural lands should be protected. Protecting agricultural land enables long-term food security, provides essential environmental benefits and sustainability of agriculture.

The rapid industrialization of Turkey after 1930's and government policies caused agriculture's share to decline in overall income. The share of the agricultural sector in the GDP was almost 50% in 1950, 25% in 1980, 15.3% in 1990, 11% in 2005 and 5.8% in 2018. This caused the fall of economic standards of the farmers and contributed to emigration from rural to urban areas. Therefore, share of agricultural sector in GDP should be increased. Because, as the higher share of

the agricultural sector in the GDP and the higher relative development rate, so the higher product contribution to economic development.

While in Turkey population increased steadily, agricultural population and hence employment decreased in 2018 compared to 2002. Supports applied for the solution of economic and social problems are very important for especially with the development of social state understanding. Agriculture in Turkey is supported by various agricultural policy tools as it is in every country. Supporting agriculture and producers is crucial for sustainable rural development. Although subsidies given to agriculture have increased over the years, they are not sufficient for producers. Because the input costs which used in agriculture are high. For this, primarily input costs should be decreased for a sustainable agriculture. According to the years in Turkey, while subsidies to agriculture has increased, the share of agriculture in GDP and in total budget has decreased. This development has made the agricultural sector that a sector affected by the size in economy.

As a result, agricultural supports should increase the farmer's income and resolve the structural problems of the sector in order to build a sector that is competitive and independent. However, such supports are not alone sufficient in explaining farmer welfare and rural poverty. There are several natural, economic, social, cultural, and even political factors affecting agricultural and rural welfare levels. The sources allocated to rural development projects that contribute to reverse the migration trends by improving the working and living conditions in rural spaces must be increased. Because developing the farmer means developing the agriculture, economy and country. Therefore, it is extremely important to implement consistent and sustainable agricultural policies in agriculture.

### **References**

1. Abay, C., Sayan, S., Miran, B., & Bayaner, A. (2001) Türkiye'deki tarımsal destek harcamalarının enflasyonist, etkilerinin ekonometrik analizi. Ankara: TEAE Yayınları.
2. Aktaş, E., Altıok, M., & Songur, M. (2015) Farklı Ülkelerdeki Tarımsal Destekleme Politikalarının Tarımsal Üretim Üzerine Etkisinin Karşılaştırmalı Analizi. Anadolu Üniversitesi Sosyal Bilimler Dergisi, 15(4), 55–74.
3. Anonymous, (2017) Agricultural Policy Monitoring and Evaluation, OECD.
4. Armağan, G., (2008) The Structure and Production of Agriculture in Turkey [http://web.adu.edu.tr/user/garmagan/co\\_urses/tei/uyg00.pdf](http://web.adu.edu.tr/user/garmagan/co_urses/tei/uyg00.pdf)
5. Enemark, S., (2005) "Understanding the Land Management Paradigm", FIG Commission 7 Symposium Innovative Technologies for Land Administration, 19-25 June 2005, Madison – Wisconsin, USA.
6. MAF, (2018) Ministry of Agriculture and Forestry, Annual Activity Report
7. Miran, B., (2006) Agricultural structure and production, Agriculture in Turkey (Ed. Fahri Yavuz), Ministry of Agriculture and Rural Affairs of Publications of Strategy Development Department, Ankara, Turkey, in Turkish.
8. Myrdal, G., (1984) International inequality and foreign aid in retrospect. *Pioneers in development*, 151-165.
9. Official Gazette. 2006. Tarım Kanunu. Kanun No: 5488. Kabul Tarihi: 18.04.2006. (available at: [http://www.resmigazete.gov.tr/eskiler/2006/04/2\\_0060425-1.htm](http://www.resmigazete.gov.tr/eskiler/2006/04/2_0060425-1.htm)).
10. Republic of Turkey Ministry of Treasury and Finance, 2018.
11. Polidori, R., Romano D., (1996) Agricoltura e sviluppo, dattiloscritto, lavori preparatori di 'Agricola 96' Conferenza Provinciale dell'Agricoltura, Firenze 18 novembre.
12. Soyak, M., (1996) Rant Arama: Türk Tarım Sektöründe Destekleme Politikaları Yoluyla Aktarılan Rantlar Üzerine Bir İnceleme. *Ekonomik Yaklaşım*, 7(23), 87–112.
13. Tan, S., Tan, S.S., Everest, B., Hasdemir, M., (2016) Agricultural Support Policies and Public Budgeting in Turkey, *Management Studies*, vol. 4, no. 6, pp. 237-242.

14. Tanrıvermiş, H., Bülbül, M., (2007) The Role of Agriculture in Turkish Economy at the Beginning of the European Union Accession Negotiations, Journal of Applied Sciences, Volume 7 (4): 612-625, 2007.
15. Ulger, N.E., Aydemir, S., Iban, M.C., Akbulut, H., (2018) Land Use Problems and Land Management: A Land Inventory Study in Istanbul, “2018 World Bank Conference on Land and Poverty” The World Bank - Washington DC, March 19-23.
16. Yapar, S., (2005). Türkiye’de Tarımsal Ekonomi ve “Desteklememe” Politikasının Bir Aracı Olarak Doğrudan Gelir Desteği Sistemi. Selçuk Üniversitesi Karaman İ.İ.B.F. Dergisi, 5(2), 21-37.
17. Yavuz, F., (2019) A Look into Turkey’s Agricultural Policies, thenewturkey.org, June 10.