



Hakan KIRBAŞ

Diagnosis of the small farms sector in Turkey

"The role of small farms in sustainable development of the food sector in the countries of Central and Eastern Europe"

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Introduction

Generally the first concept that comes to mind about agriculture is vegetable production. But agriculture is a much more comprehensive concept. Because the concept of agriculture includes livestock production, forestry and aquaculture as well as crop production.

The most general definition of agriculture; production of plant and animal products, increasing the quality and yield of these products, protection, processing, evaluation and marketing under appropriate conditions. The agricultural sector consists of 5 main branches of activity. These include soil and water resources, crop production, livestock, forestry and aquaculture.





This presentation reveals the importance of the agricultural sector and its place in Turkish economy. In this context to diagnoses to the small farms in Turkey is the main target of the presentation.





Agriculture Sector In Turkey

Turkey is a geography that has hosted many Anatolian civilizations in history. The most important of the Anatolian civilizations are Assyrian, Hittite, Byzantine, Seljuk and Ottoman Empire. And also Anatolia is one of the oldest commercial centers in the world. In this region agricultural activities are carried out intensively in many areas and types.

After the establishment of the Republic of Turkey has focused on the industrial sector. However, the agricultural sector has maintained its importance in the national economy. Today although the contribution of the agricultural sector to national income has diminished over time, considering the contribution of foreign trade, and the employment, the place and importance in Turkey's economy is still quite large.





Turkey's population has increased by approximately 7 times past eighty years. At the end of the 1920s, while only a quarter of the country's population lived in cities, today one in four people live in rural areas.

After establish to the Turkish Republic, Agricultural Credit and Sales Cooperatives, Agricultural Combinations and State Agricultural Enterprise were established to support agricultural activities In the 1930s. During second World War, prices of agricultural products showed an upward trend as well as all over the world. In order to mitigate this negative impact, "the Law on the Land of the Farmer" was enacted in 1945. The aim of the Law was to make the farmers who has no land being owner land. In the 1950s, migration from rural areas to cities was observed in the labor force. Therefore, it was seen that land reform did not reach the expected targets.





After the 1960-1970s, 5 years development plans were prepared and policies supporting agricultural activities were started to be implemented. Although these studies have partially increased agricultural production, the expected targets have not been achieved yet. After 2000, important changes were made in the agricultural policies implemented within the framework of the agreements made with the International Monetary Fund (IMF):

- While the all existing practices was cancelled, adopted of the Direct Income Support System based on the land targeted by the World Bank for small producers.
- Harmonization of cereal, tobacco and sugar beet prices with world prices and cancellation of support purchases in progress of time.
- Gradually termination of the government's credit subsidy to farmers and,
- Industrial Development Bank of Turkey (TSKB) and the Agricultural Bank of the Republic of Turkey (TCZB) 's restructuring,
- are the most important of these policies.





Due to the agreements with the IMF, the economic support provided to the farmers has been severely limited. However, when compared production costs of agricultural products in Turkey with the cost of agricultural products in the world, it is seen to be very large price differences. The main reasons for these differences are, infrastructure problems related to the Turkish agriculture, high input prices, inadequate use of technology and high costs of fertilizer and seed. Therefore, prices in Turkey are being much above the world price, and promoting strategies of agricultural activities remain insufficient. These negative conditions cause the agricultural producers to give up their agricultural activities.

The agricultural sector is an important part of the economic systems of the countries. While determining the position of the agricultural sector in the country's economy, issues such as the output from agriculture, agricultural output, foreign trade and employment are taken into consideration. In order to achieve this goal, industrialization must be ensured. However, relationship and interaction between the agricultural sector and the industrial sector are essential for economic development. In retrospect, countries such as France, England, Russia and Japan have used the agricultural sector to provide the necessary financial resources for industrialization.





Yield in the agricultural sector is defined as the total monetary amount of the physical value of the products produced as a result of agricultural activities. The contribution of the agricultural sector to the economy in Turkey, by Turkey Statistical Institute calculated using the method of production is determined by the agricultural GDP.

Agricultural Gross Domestic Product General percentage share in Gross Domestic Product in Turkey and its rates of development are shown in Table 1. Also, Gross domestic product in Turkey is shown in Table 2.





Gross domestic product by kind of economic activity (A21), income approach, 2009-2018										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
A_Agriculture, forestry and fishing	9,116%	10,266%	9,362%	8,784%	7,677%	7,451%	7,835%	7,017%	6,863%	6,496%
B_Mining and quarrying	1,255%	1,235%	1,276%	1,236%	1,225%	1,073%	0,934%	0,930%	1,011%	1,117%
C_Manufacturing	16,99%	17,18%	18,73%	17,99%	18,54%	18,99%	18,96%	18,83%	19,85%	21,27%
D_Electricity, gas, steam and air conditioning supply	1,569%	1,754%	1,446%	1,522%	1,577%	1,564%	1,449%	1,476%	1,364%	1,513%
E_Water supply, sewerage, waste management and remediation act.	0,854%	0,884%	1,010%	1,110%	1,073%	1,095%	1,070%	1,023%	1,079%	1,004%
F_Construction	6,30%	6,93%	8,15%	8,48%	9,20%	9,16%	9,25%	9,72%	9,65%	8,01%
G_Wholesale and retail trade	11,98%	12,58%	13,18%	12,73%	12,73%	12,95%	13,03%	12,88%	13,36%	13,50%
H_Transport, storage	9,85%	8,94%	8,39%	9,22%	9,03%	8,97%	8,92%	8,58%	8,73%	9,15%
I_Accomodation and food service activities	2,56%	2,62%	2,93%	3,03%	3,16%	3,27%	3,21%	2,94%	3,04%	3,48%
J_Information and communication	3,05%	2,80%	2,63%	2,73%	2,72%	2,73%	2,72%	2,76%	2,84%	2,75%
K_Financial and insurance activities	4,20%	3,35%	3,08%	3,33%	3,52%	3,25%	3,40%	3,79%	3,65%	3,35%
L_Real estate activities	11,76%	11,27%	10,19%	9,78%	9,40%	9,06%	8,77%	8,77%	8,06%	7,58%
M_Professional, scientific and technical activities	2,42%	2,44%	2,35%	2,40%	2,42%	2,44%	2,68%	2,60%	2,66%	2,61%
N_Administrative and support service activities	2,57%	2,41%	2,53%	2,67%	2,88%	3,04%	3,21%	3,37%	3,47%	3,18%
O_Public administration and defence; compulsory social security	5,63%	5,51%	5,15%	5,34%	5,12%	5,12%	4,93%	5,18%	4,86%	5,41%
P_Education	4,39%	4,44%	4,33%	4,47%	4,50%	4,67%	4,66%	4,97%	4,65%	4,66%
Q_Human health and social work activities	3,30%	3,19%	3,06%	2,99%	2,96%	2,87%	2,77%	2,97%	2,72%	2,78%
R_Arts, entertaintment and recreation	0,96%	0,96%	0,94%	0,96%	1,07%	1,08%	1,06%	1,05%	1,00%	1,01%
S_Other service activities	1,16%	1,19%	1,21%	1,17%	1,15%	1,16%	1,08%	1,10%	1,09%	1,06%
T_Activities of household as employers	0,058%	0,058%	0,055%	0,056%	0,056%	0,055%	0,051%	0,054%	0,055%	0,054%





Table 1: Agricultural Gross Domestic Product and Development Rates by Years In Turkey

		Agriculture forestry and fishing							
Years	Value (Thousand TRY)	Share (%)	Change ratio (%)	Years	Value (Thousand TRY)	Share (%)	Change ratio (%)		
1998	8 957 343	12.5	-	2009	81 234 274	8.1	9.1		
1999	11 229 013	10.5	25.4	2010	104 703 635	9.0	28.9		
2000	17 205 761	10.1	53.2	2011	114 838 169	8.2	9.7		
2001	21 729 848	8.9	26.3	2012	121 692 893	7.8	6.0		
2002	36 901 720	10.3	69.8	2013	121 709 079	6.7	0.0		
2003	46 249 933	9.9	25.3	2014	134 724 745	6.6	10.7		
2004	54 365 145	9.4	17.5	2015	161 447 917	6.9	19.8		
2005	62 349 598	9.3	14.7	2016	161 304 618	6.2	-0.1		
2006	64 415 593	8.2	3.3	2017	189 193 521	6.1	17.3		
2007	66 197 107	7.5	2.8	2018	216 666 387	5.8	14.5		
2008	74 451 345	7.5	12.5						

TurkStat. Annual Gross Domestic Product. 2018





Table 2: Gross Domestic Product In Turkey

	Gross domestic product (purchaser's price)								
Years	Value (Thousand TRY)	Share (%)	Change ratio (%)	Years	Value (Thousand TRY)	Share (%)	Change ratio (%)		
1998	71 892 898	100	-	2009	999 191 848	100	0.4		
1999	107 164 345	100	49.1	2010	1 160 013 978	100	16.1		
2000	170 666 715	100	59.3	2011	1 394 477 166	100	20.2		
2001	245 428 760	100	43.8	2012	1 569 672 115	100	12.6		
2002	359 358 871	100	46.4	2013	1 809 713 087	100	15.3		
2003	468 015 146	100	30.2	2014	2 044 465 876	100	13.0		
2004	577 023 497	100	23.3	2015	2 338 647 494	100	14.4		
2005	673 702 943	100	16.8	2016	2 608 525 749	100	11.5		
2006	789 227 555	100	17.1	2017	3 110 650 155	100	19.2		
2007	880 460 879	100	11.6	2018	3 724 387 936	100	19.7		
2008	994 782 858	100	13.0						

TurkStat. Annual Gross Domestic Product. 2018





Turkey's GDP distribution by sector are shown in Table 3.

Table 3: Gross Domestic Product by Kind of Economic Activity

Gross domestic product by kind of economic activity (A21), income approach, 2009-2018										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
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P_Education	4,39%	4,44%	4,33%	4,47%	4,50%	4,67%	4,66%	4,97%	4,65%	4,66%
Q_Human health and social work activities	3,30%	3,19%	3,06%	2,99%	2,96%	2,87%	2,77%	2,97%	2,72%	2,78%
R_Arts, entertaintment and recreation	0,96%	0,96%	0,94%	0,96%	1,07%	1,08%	1,06%	1,05%	1,00%	1,01%
S_Other service activities	1,16%	1,19%	1,21%	1,17%	1,15%	1,16%	1,08%	1,10%	1,09%	1,06%
T_Activities of household as employers	0,058%	0,058%	0,055%	0,056%	0,056%	0,055%	0,051%	0,054%	0,055%	0,054%





Table 4 shows the distribution of vegetable, animal and aquaculture production values in recent years inTurkey. When the production values are examined, it is seen that there has been a significant increase in each production value in recent years.

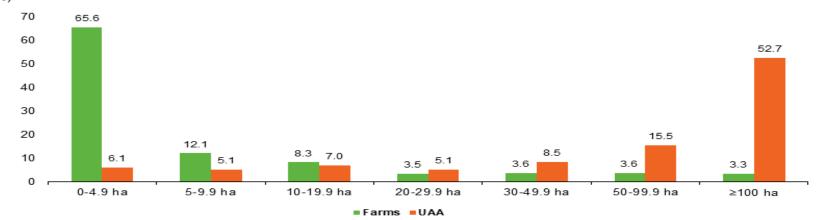
Table 4: Agricultural Production Values Between 1997-2018 Years in Turkey

Years	Crop Production Value (1000 TL)	Animal Production Value (1000 TL)	Aquaculture Production Value (1000 TL)	Total Agricultural Production Value (1000 TL)
1997	3 553 871	2 491 730	33 717	6 079 318
1998	7 265 715	4 927 428	70 496	12 263 639
1999	9 652 440	8 471 039	95 553	18 219 032
2000	14 920 079	11 804 270	139 552	26 863 901
2001	20 017 457	14 371 109	173 890	34 562 456
2002	32 264 199	19 870 749	212 248	52 347 196
2003	40 569 390	27 823 918	415 575	68 808 883
2004	45 680 437	33 968 674	520 603	80 169 714
2005	50 939 686	37 425 281	704 283	89 069 250
2006	54 515 463	41 841 151	766 220	97 122 834
2007	56 787 423	47 587 745	839 762	105 241 930
2008	66 010 114	49 338 055	850 646	116 198 815
2009	68 267 485	54 756 300	952 935	123 976 720
2010	80 033 858	85 001 165	1 066 778	166 101 801
2011	88 979 273	102 648 699	1 098 634	192 726 606
2012	87 946 988	112 868 484	1 112 303	201 927 775
2013	92 452 530	98 115 412	1 128 745	191 696 687
2014	98 123 089	106 844 652	1 188 432	206 156 173
2015	120 152 079	128 773 024	1 099 749	250 024 852
2016	119 237 661	152 032 284	1 245 020	272 514 965
2017	135 885 135	187 723 216	1340.878	POLISH NATI24949 229 E
2018	158 870 800	225 334 263	1 535 689	FOR ACADEMIS 740 STA

What is a small farm?

Although there is not a complete definition of what small farms are, it can be defined as a physical or economic size based on the labor inputs of the farms or the social and environmental benefits provided by the small farms. However, farm sizes vary widely between countries. Therefore, a small farm in one country can be a large farm in another country. On the other hand, when the statistics of the European Union (Eurostat) are examined, the farmers who own land up to 0-4.9 ha are 65.6% of the total farms. The size of land used by these farms is 6.1% of the total usable agricultural land.





Note: There are some differences in the threshold applied by some Member States, often to exclude the very smallest agricultural holdings which together contribute 2% or less to the total UAA excluding common land, and 2% or less to the total number of farm livestock units.

Source: Eurostat (online data code: ef_m_farmleg)







The most commonly used parameters to define small farms are physical size, economic size, and labour input. These criteria are taken into account in Turkey as well. Among these, the land size criterion is taken into consideration in the state subsidies and supports. Data for these three criteria in Turkey are shown Table 5, Table 6, Table 7 and Table 8 respectively.

Table 5. Distribution of Land Use by Holding Size and Number of Holdings, 2016

Size of Holding (decare)	Total Number of Hol	Total Number of Holdings		e)
Total	3.022.127	%	184.348.223	%
-5	178.006	5,89%	481.987	0,26%
5- 9	290.461	9,61%	1.952.471	1,06%
10- 19	539.816	17,86%	7.378.022	4,00%
20- 49	950.840	31,46%	29.531.619	16,02%
50- 99	560.049	18,53%	38.127.032	20,68%
100- 199	327.363	10,83%	43.884.395	23,81%
200- 499	153.685	5,09%	42.075.497	22,82%
500- 999	17.429	0,58%	11.218.554	6,09%
1000-2499	4.199	0,14%	5.476.930	2,97%
2500-4999	222	0,0073%	695.541	0,38%
5000+	57	0,0019%	3.526.175	1,91%





Table 6. Distribution of holdings according to economic size, 2016

Economic size group (TL)	Total holding(%)
Total	100.0
<6 660	21.7
6 660 - <26 640	36.3
26 640 - <83 250	27.5
83 250 - <333 000	12.7
333 000 - <832 500	1.4
832 500+	0.3

Table 7. Employment status of household members whose main occupation is agricultural activity in agricultural holdings

	MEN	WOMEN	TOTAL	%
Number of Person	4.448.852	3.716.597	8.165.449	
Salaried	3.772	577	4.349	0,053
Seasonal	35.722	17.608	53.330	0,653
Employer	49.449	8.114	57.563	0,705
On his own account	2.544.111	240.665	2.784.776	34,104
Family Member	1.815.798	3.449.633	5.265.431	64,484







Table 8. Distrubution of holders, managers and household members working in their own holding by working time, 2016 [15 years +]

Working time on agricultural activity	Total	Household members	Holder/Manager
Total	100.0	100	100.0
Less than 56 days	20.9	20.2	22.0
56-112 days	16.5	16	17.3
113-168 days	13.7	13.6	14.0
169-224 days	11.5	11.8	11.0
225 days and more	37.4	38.5	35.7

Ref: TurkStat, Agricultural Farm Structure Survey, 2016





The Role of Small Farms In Development

The importance of small farms in economic development result from their contribution to the development of the agricultural sector. The contribution of small farms to the economic development process can be grouped under three headings; product contribution, market contribution, production factor contribution.

• Agricultural Product Contribution

Small farms are a very important factor for people to meet their basic needs. Many countries' agricultural support programs considers the self-sufficiency a primary objective.

Market Contribution

In order to develop in the industrial sector, the products produced in the agricultural sector must be sold. At the beginning of rural development, the agricultural sector is the largest market for industrial products. Therefore, in order to achieve industrial growth, the agricultural sector needs to grow. Since agricultural products are mandatory consumer goods, demand for agricultural products will increase in parallel with population growth in both rural and urban areas.

Production Factor Contribution

The contribution of production factor to the economic development process of small farms to be consist labor, capital and raw materials.





Small Farm In Turkey

As the legal basises for the diversification of farm activities in Turkey are:

- IPA Council Regulation (EU) No: 231/2014. Article 3.1.d,
- IPA Commission Implementing Regulation (EU) No: 447/2014 and
- Relevant provisions of the IPARD Sectoral Agreement.

Agricultural production and employment in Turkey is the most rugged ring of the rural economy.

Except for households, there are specialized farms create established by the state according to specific regional area in Turkey.





Altınova (Konya) Agricultural Management Directorate

Crop Production Activities

 Forage crops (alfalfa, silage maize) are produced in most of the irrigated agricultural lands.

Livestock Activities

- Cattle Activity
- Merino sheep breeding activity
- Gazelle Breeding

Anadolu Agriculture Enterprise Directorate

Crop Production Activities

 Wheat for seed purposes in irrigated fields, alfalfa and silage corn production is made to meet the need of roughage for alfalfa and animal husbandry.

Livestock Activities

- Cattle Activity
- Angora Goat Breeding; mohair (Ankara) goat breeding
- Purebred Arabian Horse Breeding





Boztepe Agricultural Enterprise Directorate

Crop Production Activities

- Citrus production
- Certified seed production

Ceylanpınar Agricultural Enterprise Directorate

Crop Production Activities

- Certified cereals, fodder crops and lentil certified seeds
- Barley, soy, canola, cotton, lentil, alfalfa and vetch for certified seed production

Livestock Activities

- Cattle breeding and cattle breeding activity
- Breeding sheep and goats





Çukurova Agricultural Enterprise Directorate

Crop Production Activities

- Wheat, sunflower, vetch and canola
- Additionally Seed production of corn and soybean is also made.

Livestock Activities

There are dairy cattle breeding with Holstein cattle.

Dalaman Agricultural Enterprise Directorate

Crop Production Activities

- First year in irrigated fields of field, wheat.
- In the second year, corn for seed purposes, sunflower, silage corn

Livestock Activities

Holstein and Brown breeds.





Polatlı Agricultural Enterprise Directorate

Crop Production Activities

- Forage crops (alfalfa, vetch, silage corn) and wheat for seed purposes
- International standards for certified seed production have been achieved.

Livestock Activities

Anatolian Merino and Polatlı sheep

Gökhöyük Agricultural Enterprise Directorate

Crop Production Activities

Wheat, alfalfa and vetch for seed purposes.

Livestock Activities

- Cattle breeding is carried out with the Jersey breed which is productive in terms of milk.
- Bafra sheep breeding sheep breeding with gum breed rams (75%) and Karayaka sheep (25%).





Sultansuyu Agricultural Enterprise Directorate

Crop Production Activities

- In dry agricultural areas, sainfoin and vetch production is carried out to meet the roughage requirements of wheat, barley, chickpea and livestock.
- Apricot production, which is the symbol of Malatya City.

Livestock Activities

- Brown (Montofon) and Limosin breed cattle are cultivated.
- Purebred Arabian Horse Breeding.





National policies for small farms In Turkey

Some of the goals for small farm, in Turkey are as follows:

- Diversification of crop production and processing and packaging of crop products
- Production, processing and packaging of beekeeping and bee products
- Craftsmanship and local product enterprises, traditional handicrafts, processing and marketing of local agricultural products
- Rural tourism and recreation activities (accommodation and recreation facilities)
- Aquaculture
- Machine Parks
- Renewable energy investments (electricity, heat, light, gas, etc.).

In Turkey, while determineting to the policy tools and supports of agrecultural area, International institutions such as World Bank, International Monetary Fund, World Trade Organization and EU and their agreements are taken into consideration.





Agricultural policies in Turkey, since structural problems are changed according to emerging needs, they are particularly in line with EU Common Agricultural Policy. Objectives of agricultural policies in the Agriculture Law in Turkey may listed as follows:

- Agricultural production according to domestic and foreign demand.
- Conservation of natural and biological resources.
- Increasing productivity, strengthening food security and safety.
- Development of producer organizations.
- Strengthening agricultural markets.
- To increase the level of welfare in the agricultural sector by ensuring rural development.





Conclusions

- It is known that the income levels of individuals living in rural areas are very low and the number of farms used to make a living is high (more than 65%) and income from non-agricultural activities is very limited. Moreover, it is another fact that the female labor force in these regions is very small. Therefore, all these factors need to be taken into consideration when planning economic and social life in rural areas.
- In rural areas, both supporting alternative agricultural activities and identifying and supporting non-agricultural economic activities will be an important development in order to ensure rural development.
- Diversification of crop production, processing and marketing of crops in rural areas will lead to economic recovery and will create new employment opportunities.





- As a result, farmers will be able to achieve the quality required by the market and ensure their packaging capabilities and accelerate their branding.
- Rural tourism can also be improved by establishing accommodation, catering and recreation facilities in these regions and by improving the facilities and capacities currently available.
- It will also contribute to improving the quality of living conditions in rural areas, the creation of new employment areas and the promotion and protection of cultural and natural assets.
- The establishment and expansion of machinery for the use of farmers is supported as an alternative economic activity.





• The generation and use of renewable energy provides new opportunities to meet energy demand, as well as to reduce costs in rural areas and diversify the entrepreneurial activities of individuals living in rural areas. This practice in Turkey to the development of new business areas by creating jobs and supporting employment in rural areas are used for the reversal of decrease of the rural population levels. This diversity will directly increase the income of individuals living in rural areas and contribute to a better regional and economic balance.





THANK YOU...



