



STRUCTURAL CHANGES AND REFORMS IN TURKISH AGRICULTURE 2003-2015



*"We cannot move Turkey forward without
developing the agriculture sector"*

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STRUCTURAL CHANGES AND REFORMS IN TURKISH AGRICULTURE 2003-2015

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TURKEY

Our priorities are better reciprocal relationship and cooperation between the West and the East; as well as improvement of the dialogue and alliance among civilizations.

Turkish experience proves that integration with the world is possible by harmonizing the existing values and traditions with the modern world.





The Ministry of Food Agriculture and Livestock

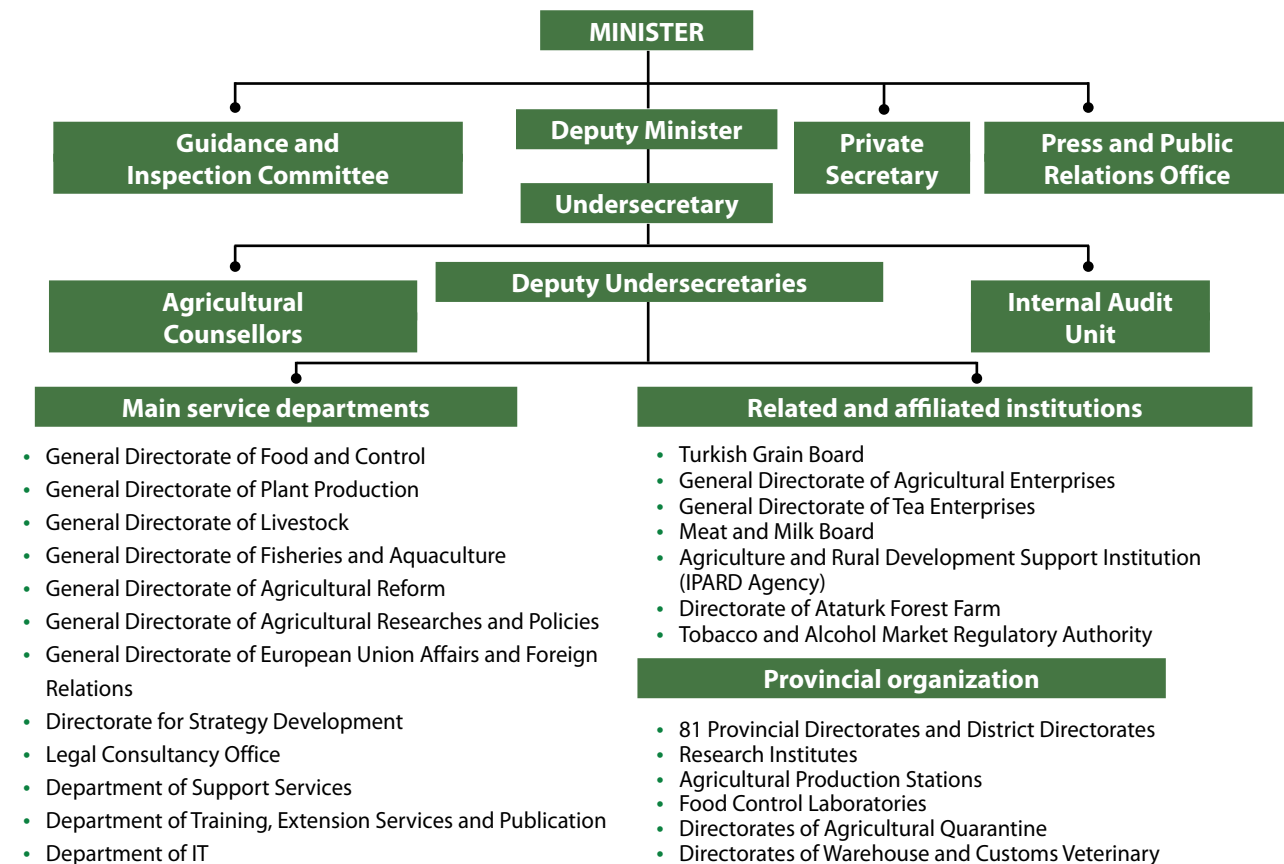
The Ministry of Food Agriculture And Livestock

- The former Ministry of Agriculture and Rural Affairs was reorganised as the **Ministry of Food Agriculture and Livestock** in 2011.
- The Ministry is mainly responsible for policy formulation, monitoring and inspections of implementations in respect of food, agriculture and livestock.

The main activities of the Ministry are;

- Development of plant, livestock, aquaculture and fishery production,
- Research studies on the development of agriculture sector and determination of agricultural policies,
- Food safety and security,
- Rural development,
- Protection of land, water resources and biodiversity,
- Strengthening the institutional capacity and awareness of farmers and fishermen,
- Effective and efficient implementation of agricultural support programmes.

Organisation chart





Basic Indicators of the Turkish Agriculture Sector



TURKEY

Agricultural Land	23,9 million ha	Total Area	78.5 million ha
Pastures and meadows	14,6 million ha	Population	78.7 million
Forests	21,6 million ha		

Number of agricultural holdings	3 million	Number of provinces	81
Average size per holding	6 ha	Number of towns and districts	919
		Number of villages	18.330

Source: TURKSTAT



Basic indicators

Basic Indicators	2002			2015		
	Turkey	Agriculture	Agriculture Share (%)	Turkey	Agriculture	Agriculture Share (%)
Employment (Million)	21,4	7,5	35,0	26,5	5,0	18,9
GDP (Billion \$)	230,5	23,7	10,3	800,0*	57,2*	7,1
GDP per employe (\$)	3.492	1.064	28,6	30.853*	10.451*	-
Exports (Billion \$)	36,0	4,0	11,2	144,0	16,8	11,6
Imports (Billion \$)	51,5	3,9	7,7	207,0	11,2	5,4

Source: TURKSTAT

* 2014



As Agriculture is Improving, Turkey is Developing

Year	Agricultural GDP (Billion \$)	Agricultural Growth (%)
2002	23,7	8,8
2003	30,2	-2,0
2004	37,0	2,8
2005	45,0	7,2
2006	43,5	1,4
2007	49,5	-6,7
2008	56,4	4,3
2009	51,0	3,6
2010	61,7	2,4
2011	61,8	6,1
2012	62,0	3,1
2013	61,0	3,1
2014	57,0	-1,9

**TURKISH
AGRICULTURE
SECTOR**

has grown in 9 out of
last 12 years.

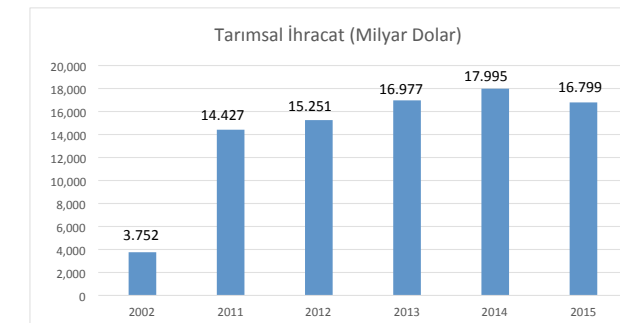
Turkish Agriculture Sector has
grown yearly 2,3% in average
between 2003 and 2014, this figure
is 0,24% in EU.

- While **the economic size of Turkish agriculture** with respect to world's agricultural economy ranked 11th in 2002, it has risen to **7th rank in the world and 1st in Europe according to OECD Reports and World Bank** since **2008**. Agriculture sector satisfies the need for food of 78,8 million Turkish citizens and about 40 million tourists.
- While the contribution of agriculture to National Income (GDP) was 23,7 billion dollars in 2002, it has reached to **57,2 billion dollars** in 2014.



Turkish Agricultural Products have become Favoured in World Tables

Agricultural Exports (Billion Dollar)



Source: TURKSTAT Harmonized system

- The export of agricultural products has increased from 4 billion dollars in 2002 to **16,8 billion dollars in 2015**.
- Export of agricultural products shows 12% increase annually.
- Turkey exported **1.781 kind of agricultural products to 190 countries** in 2014.



Strategic Plan (2013-2017)

- The 2013-2017 Strategic Plan of the Ministry of Food Agriculture and Livestock has been prepared.
- The following areas are determined as strategic within the scope of the Plan:
 - Agricultural Production and Security of Supply,
 - Food Safety
 - Plant Health, Animal Health and Welfare,
 - Agricultural Infrastructure and Rural Development
 - Institutional Capacity Building



Performance Programmes

- Performance Programmes for 2010, 2011 and 2012 which identify the activities and the budget to reach the medium and long term objectives and targets set in the 2010-2014 Strategic plan had been prepared.
- Performance Programmes for 2013, 2014 and 2015 had been implemented and studies for performance programme of 2016 have been started according to 2013-2017 Strategic Plan.



Agricultural Vision for the Year 2023

Turkey on the road to 2023 as being a country which;

- Provides its population with sufficient, best quality and safe food,
- Improves its net exporter position in agricultural products,
- Increases its competitiveness in Global Market.

The main targets of Turkish Agriculture for 2023 have been identified as;

- Agricultural GDP reaching to **150 billion dollars**,
- Agricultural exports over **40 billion dollars**,
- Sustainable **agricultural growth**,
- Achievement of **land consolidation** on 14 million ha,
- Modern **irrigation systems** on all irrigable land.

Reforms on Agriculture



15 Laws Related to Agriculture

- **15 laws** leading up Structural Change and Transformation period in agriculture have been adopted.
- Law on Agriculture,
- Law on Organic Farming,
- Law on Agricultural Producer Unions,
- Law on Protection of Plant Breeder's Rights for New Plant Varieties,
- Law on Agricultural Insurances,
- Law on Soil Protection and Land Use,
- Law on Seedling
- Law on Establishment of Agriculture and Rural Development Support Institution,
- " Law on Licenced Warehouse",
- Law on Veterinary Services, Plant Health, Food and Feed,
- Law on Biosafety,
- Decree Law Concerning the Organization and Duties of the Ministry of Food Agriculture and Livestock,
- Law on EXPO 2016 Antalya,
- Revision on Pasture Law.
- Law on Soil Protection and Land Use and Revision on Turkish Civil Law



To Prevent of Fragmentation of Agricultural Lands

- Legal arrangements have been carried out in order to prevent the fragmentation of agricultural lands.
- Within this scope, **“Indivisible Parcel Size”** was determined. It prevents the fragmentation of special product lands and marginal agricultural lands to less than 2 hectares, cultivated agricultural lands to less than 0,5 hectare and the greenhouse agricultural lands to less than 0,3 hectare. The sale of agricultural parcel shares of which size is under Indivisible Parcel Size was prohibited in 2007.
- And the result of 10 years of detailed and multiplied studies “Law on Soil Protection and Land Use and Revision on Turkish Civil Law” was published in order to prevent the fragmentation of agricultural lands in 2014 .

Land Consolidation Studies

- Land consolidation studies gained importance to bring together the small scale agricultural establishments.
- While 450 thousand hectares of land in total had been consolidated in Turkey between 1961 and 2002, in 41 years, 5 million ha land was consolidated between 2003 and 2015 in 13 years.
- Consolidation of one million hectares of land for each year has been projected.

A System that tracks and controls agricultural lands from space has been established

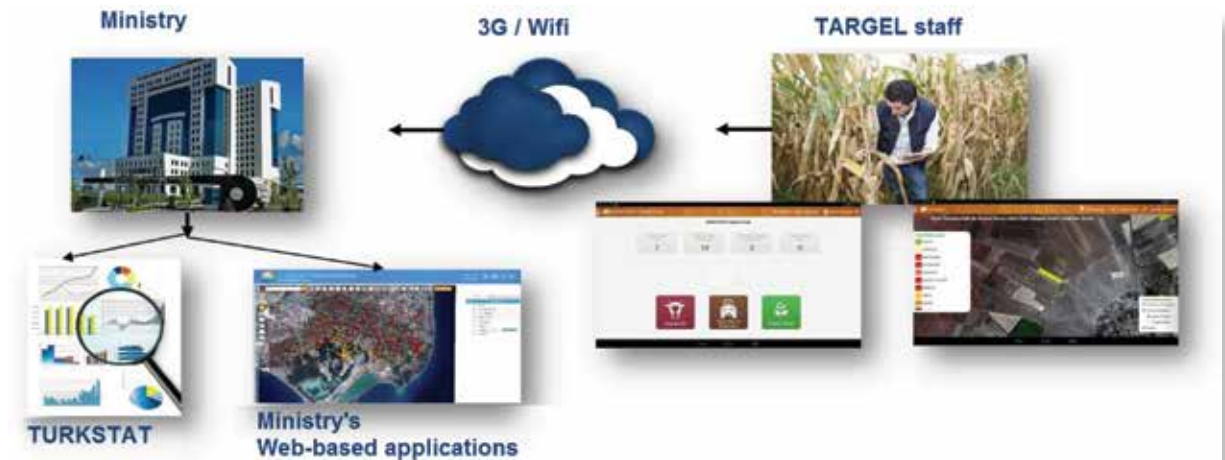


All stages from production to consumption are being controlled by using high levels of technology in agriculture.

- By using satellite images, all agricultural lands are identified on a parcel basis.
- Agricultural Information System was established by integrating all the systems.

Efficient and correct use of agricultural supports are monitored and controlled by this system.

Our agricultural inventory is being determined accurately and currently by mobile technologies



- In villages, all information from agricultural production to animal health is logged on to the system on tablet computers by 10.000 TARGET staff.
- Data acquired by special software and mobile applications are reported instantly.
- The work that has been carried out is being monitored in the "Control Center" established in the Ministry.



Interest Free Financing in Agriculture

- The agricultural credit interest rate which was 59% in 2002, became interest **free for irrigation, forage crops, fisheries, certified seed, seedling, sapling production, livestock activities and interest rate decreased to 8,25% for other agricultural activities in 2013.**
- Favorable interest rates were implemented for investments in the field of agriculture.



Introducing the “Firsts” to Turkish Agriculture



The Milestones in Agriculture sector;

- “Turkey Geofit Garden” was established in Yalova (2014).
- “With the “Law on Soil Protection and Land Use and Revision on Turkish Civil Law” fragmentation of agricultural lands by legacy has come to an end (2014).”
- “In cities which are in development regions (GAP, DAP, KOP, DOKAP) 50 % grant support implementation was started for modernization and construction of barns and corrals (2014).”
- “In cities which are in development regions 80 % grant support was provided for purchasing male breeding materials (bull, ram, goat) (2014).”
- “Meat and Milk Board was established(2013).”
- “Parcel based yield computing model was started to be implemented (2013).”
- “Agricultural Holdings Registration System was founded (2013)”
- The construction of National Botanic Garden was started in Ankara (2013).
- The name of firms, producing unhealthy food products and making falsifications have been started to be declared (2012).
- The fruit growing basins were determined, product maps were prepared (2012).
- The first “Local Yoghurt Starter” of Turkey was developed and produced (2012).
- EXPO flag for EXPO-2016 Antalya was handed over to Turkey (2011).
- “Agricultural Museum” was opened (2011).
- “3rd largest Plant Gene Bank of the World” was opened (2010).“National Food Reference Laboratory” was put into service (2010).
- “Animal Biotechnology Center” was founded (2010).
- “Agricultural Drought Test Center” was established(2010).
- “Agricultural Basins Model” was elaborated (2010).
- “Veterinary Border Control Points” were opened (2010).
- Agriculture Web- TV started to broadcasting (2010).
- The farmers that suffered from freeze disaster were supported (2010).
- “Agricultural Holding Registration System” was founded (2010).
- Thrace Region has been identified free of Foot-and-Mouth Disease and the situation has been approved by World Animal Health Organisation and European Union (2010).
- The negotiations with the European Union were opened in 12th Chapter “Food Safety, Veterinary and Plant Health”(2010).



- “ALO 174” Food Call Centre was formed (2009).
- National milk registration system and breeder sheep and goat registration system were established (2009).
- The mandatory use of prescriptions for sale of pesticides was initiated (2009).
- Product committees were established (2009).
- Use of “Certified Agricultural Consultancy Service” was supported (2009).
- Good Agricultural Practices were supported (2009).
- Licensed Warehouse Applications were started (2009).
- “The Farm Accountancy Data Network System” was established (2008).
- “Food Safety Information System” was founded (2007).
- The “Indivisible Parcel Size” of agricultural lands was determined in order to enable an effective land consolidation (2007).
- “Agriculture and Rural Development Support Institution (IPARD Agency)” was established (2007).
- “Dealership Examination System” was implemented for plant protection products (2007).

- 50% Grant and interest free 5 year – term Loan applications were started for pressure irrigation system investments (2006-2007).
- Law on Agriculture was adopted (2006).
- Support for Agricultural Insurance implementations were initiated (2006).
- Aerial spraying was ended for sunn pest, transition to normal spraying was realized completely and biological combating was started for sunn pest (2006).
- Accredited veterinary services were started to be given (2006).
- Support Programme was started for the Environmentally Based Agricultural Land Protection (2006).
- R&D support was provided for the private sector , university and non governmental organizations (2006).
- 50% Grant support was initiated for rural development investments (2005).
- Genetic resources of domestic animals were taken under protection (2005).
- “Organic Agriculture Information System” was founded (2005).
- Vaccination support was given (2005).
- The Private Consumption Tax free fuel support was given to fishing vessels (2004).
- Interest free loans were provided to agricultural development cooperatives (2003).



Agricultural Supports





Reforming Agricultural Subsidies

- Agricultural support system has been renewed on the basis of quality, safety, productivity and rural development.
- The agricultural support payments have been raised **significantly** compared to the payments in 2002.

Agricultural Basin Model

- The agricultural basin model has been developed in order to plan and increase production while protecting natural resources and implementing an efficient and rational agricultural support policy based on agricultural basins.
- Within this scope, totally 30 agricultural basins have been identified through evaluation of data based on climate, soil, topography, land classes and land usage types.
- The products to be supported have been identified by determining the regions where the products that are most efficiently produced using Agricultural Basins data.





Supports for Livestock Sector

- New livestock support schemes were introduced.
- Livestock share of the total support payments was increased.
- The farmers dealing with organic livestock breeding have been supported by payments 50% higher than before.
- The calves born from the hybrids of meat breed have been supported.
- The calves born through artificial insemination were included in the scope of agricultural support scheme.
- Also, fodder crop production and ovine production for breeding are being supported.
- Through GAP and DAP total **314 projects** were completed.
- The credit support mechanism for the beekeepers having 50 hives or planning to possess more than 50 hives was introduced in 2010.



Supports for Plant Production

- In 2005 "Organic Farming" and in 2008 "Good Agricultural Practices" were included in the scope of support programme.
- The scheme for supporting farmers using certified seeds and seedling was started in 2005.
- The certified seed produced by private sector was included in the scope of agricultural support system in 2008.



Agricultural Insurance

- Implementation of agricultural insurance were started in 2006 to compensate grievance of producers affected from natural disasters.
- For the first time, flood and inundation were included in the scope of agricultural insurance in 2010.
- The scope of agricultural insurance was extended in 2011. The flowering period of fruits grown in open area, cattle fattening and milking cows were included in the scope of agricultural insurance scheme.
- In 2015, an area of 19,3 million da and 1.1 million heads of animals were insured.
- **“Beekeeping life insurance”** was included in the scope of agricultural insurance in 2014.



Plant Production

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Significant Increases in Plant Production



Total Vegetable Production

- 28,8 tons of production in 2002 reached to 28,5 million tons in 2015.
- The increase in the last 13 years has been 14%.

Tomato Production

- 9,5 million tons of production in 2002 reached to 12,6 million tons in 2015.
- The increase in the last 13 years has been 34%.

Cucumber Production

- 1,7 million tons of production in 2002 reached to 1,8 million tons in 2015.
- The increase in the last 13 years has been 6%.

Total Fruit Production

- 13,3 million tons of production in 2002 reached to 17,5 million tons in 2015.
- The increase in the last 13 years has been 32%.

Banana Production

- 95 thousand tons of production in 2002 reached to 271 thousand tons in 2015.
- The increase in the last 13 years has been 185%.

Apple Production

- 2,2 million tons of production in 2002 reached to 2,6 million tons in 2015.
- The increase in the last 13 years has been 18%.



Cherry Production

- 210 thousand tons of production in 2002 reached to 536 thousand tons in 2015.
- The increase in last 13 years has been 155%.

Citrus Fruits Production

- 2,4 million tons of production in 2002 reached to 4 million tons in 2015.
- The increase in last 13 years has been 60%.

Total Crop Production

- 30,8 million tons of production in 2002 reached to 38,6 million tons in 2015.
- The increase in last 13 years has been 25%.

Corn Production

- 2,1 million tons of production in 2002 reached to 6,4 million tons in 2015.
- The increase in last 13 years has been 205%.

Paddy Production

- 360 thousand tons of production in 2002 reached to 920 thousand tons in 2015.
- The increase in last 13 years has been 156%.

Sun Flower Production

- 850 thousand tons of production in 2002 reached to 1,7 million tons in 2015.
- The increase in last 13 years has been 98%.



Encouragement of Organic Farming

- There exists 1 million hectare of land where organic farming can potentially be performed in Turkey. Organic farming was included in the scope of support programme in 2005.
- “Organic Farming Strategic Plan of Turkey” and “Action Plan to Improve and Extend of Organic Farming” have been prepared.
- **Organic Farming Information System** has been established in order to provide a complete information exchange with competent organizations and provide a basis for the supports.

As the result of studies performed by the Ministry;

- While 310 Thousand tons of 150 kinds of organic products have been cultivated within 90 Thousand ha area in 2002,
- 1,6 million ton of 208 kinds of organic products have been cultivated within 842 thousand ha area in 2014.
- In the period of 2002-2014, the increase in the number of products is **39%** and in production area is **837%** and in the amount of organic production is **430%**.
- The share of the organic farming area within the total agricultural area in Turkey has reached to **2%**.

Animal Production



Significant Increases in Animal Production

Milk Production

- 8,4 million tons of production in 2002 reached to 18,6 million tons in 2015.
- The increase in last 13 years has been 121%.

Red Meat Production

- 421 thousand tons of production in 2002 reached to 1,1 million tons in 2015.
- The increase in the last 13 years has been 161%.

Poultry Meat Production

- 696 thousand tons of production in 2002 reached to 2,0 million tons in 2015.
- The increase in last 13 years has been 181%.

Aquaculture Production

- 61 thousand tons of production in 2002 reached to 235 thousand tons in 2014.
- The increase in last 12 years has been 285%.

- **In 2013, exports of milk and milk products to EU started after 13 years.**
- **For the first time in history, exports of certificated pregnant heifer in 2013 and saanen goat started in 2014.**



Improvement of the Animal Breed

- Artificial insemination studies, implemented in line with the animal husbandry improvement studies, have been accelerated and during the last 11 years a success story that can be an example in the world has been achieved.
- While the number of artificial insemination in 2002 was 624 thousand, it was reached to **4 million** in 2015.
- In the last 5 years approximately over 3,5 million of artificial inseminations have been achieved annually.
- The number of artificial insemination in the last **13 years** has been increased 6 times.

As a result of breeding studies with artificial insemination;

- In 2015, pure bred cattle number with high performance has reached to **6.4 million** heads with an increase rate of **255%** while it was 1,8 million in 2002.

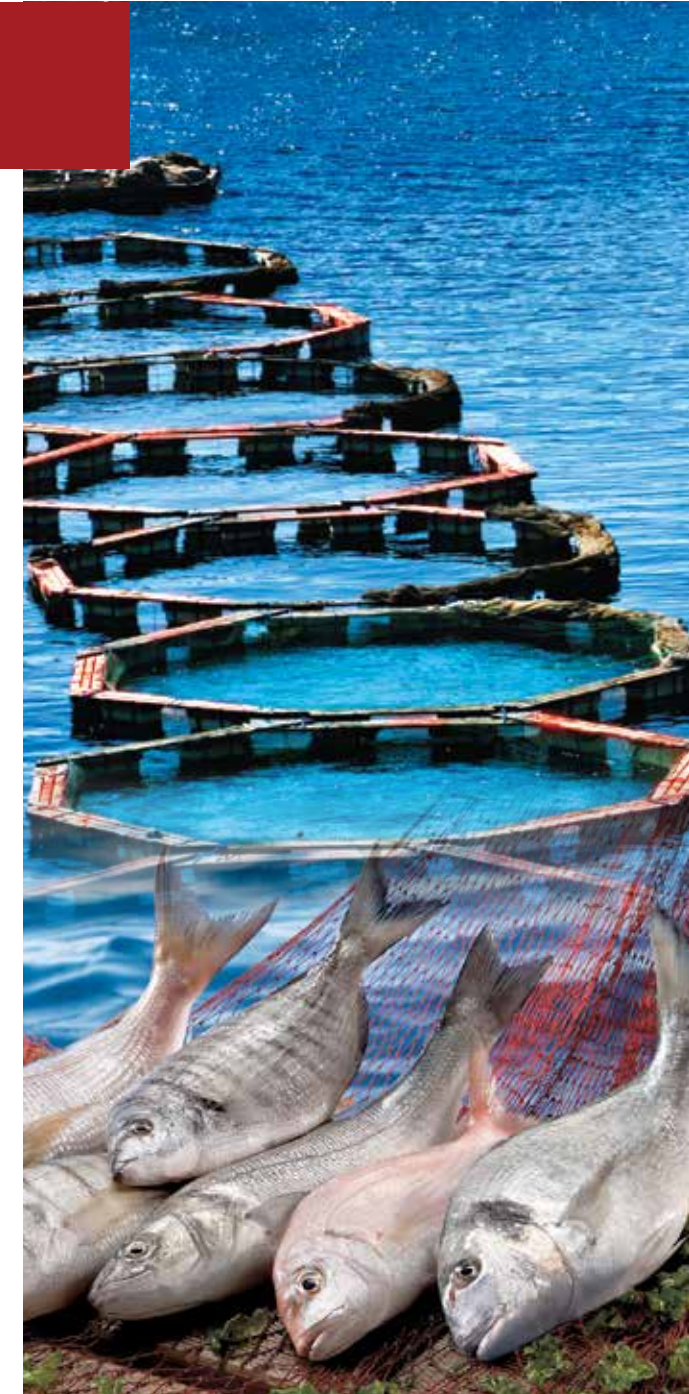


Pasture Improvement and Production of Fodder Crops

- The studies concerning the pasture improvement were intensified.
- While the area of pasture improvement studies that were carried out by 2002 was **83 thousand decares**, it was reached to **5,9 million decares** between 2003-2015.
- With the subsidies provided and breeding studies performed, the area for fodder crop production in Turkey was reached to **2,6 million ha** in 2014 while it was **1,1 million ha** in 2002.
- For the first time, the opportunity of land leasing for long periods has been provided to the private sector in accordance with the pasture improvement studies.

Fisheries and Aquaculture

- Turkey has recently risen to **1st** rank in trout production and **2nd** rank in aquaculture production in Europe.
- The exports of fishery and aquaculture products have risen to (67% of our exports to European Countries), **648 million dollars** in 2015. Turkey has **25% share** of sea bream and sea bass market in Europe.
- **“SUBİS- Fisheries Information System”** was established in 2007 and its functionality and scope has been improved.
- At the 43 landing points, fisheries port offices have been established.
- **“The Artificial Reef Master Project”** and **“Cleaning of Seas from Abandoned Fishing Gears Project”** have been implemented.
- **“The National Fisheries Data Collection Program”** has been started.
- In order to decrease over fishing capacity on stocks, total number of vessels longer than 10 m was reduced approximately %30.



Food Safety



Safe Food Healthy Life

Food safety has become one of the target areas of agricultural policy. Important studies have been carried out and legal arrangements have been made regarding food safety.

Food Inspections have been increased;

- Regions and products at risk in terms of food safety have been identified.
- The number of inspections and controls was increased.
- While the number of inspectors was 1.500 in 2002, it increased to **5.151** in 2015.
- While the number of inspections was 39.000 in 2002, it increased to **735.000** in 2015.
- “National Food Reference Laboratory” at international level was opened in 2010.
- The total number of accredited private and public Food Control Laboratories was increased to 123.
- “Food Safety Information System” (GGBS) was established.



- The production and import of active substance of 180 plant protection products have been prohibited within the scope of harmonisation with the EU.
- The use of food additives have been restricted for bread and for certain products.
- Usage standards and labeling rules of additives have been re-determined all over.
- Traceability of chemicals used in agriculture has been ensured.
- The use of poultry meat and red meat mixture have been restricted in meat products.
- Guidebooks on “Good Hygiene Applications” have been published.
- The name of firms, producing unhealthy foodstuff and making falsifications have started to be declared to the public.

ALO 174 Food Call Center



- In order to raise the awareness of the importance on safe food, 2009 was announced as the “Year of Food” in the scope of “**Safe Food- Healthy Life Campaign**” which has been the most comprehensive social responsibility project in recent years.
- “**ALO 174**” **Food Call Center** that consumers can convey their complaints, opinions and recommendations about food and food products has been established. The complaints and requests are received from the Call Center evaluated by Provincial Directorates, necessary actions are taken and the corresponding person is informed.





Plant and Animal Health



Our vision is;
**HEALTHY AGRICULTURAL
RAW MATERIAL
HEALTHY FOOD AND FOOD
PRODUCTS
HEALTHY GENERATIONS**

The production of healthy food from unhealthy plant and animal products is not possible.

In line with this, our basic strategy is to pay particular attention to plant and animal health and production of healthy and safe food.





Significant Studies on Plant Health

The attempts at prioritising human health and environment protection were intensified.

Combat against sunn pests, improvement of the quality of wheat and the protection of environment

- The annual use of pesticides has substantially fallen from 54 thousand to 39 thousand .
- In order to enable biological combat; 88 million beneficial insects have been released to nature in the last 13 years.
- With 6 million sapling afforestation has been carried out in order to provide favourable habitat and feeding opportunities for useful insects.
- Implementation of "Prescriptive Agricultural (agrarian) Drug Sale" has been initiated.

- Registration and monitoring of the chemicals used in the production of fresh fruit and vegetables have become compulsory since February 2009.
- The registration of chemicals used in plant production has become compulsory since 2010.
- Aerial spraying which has negative effects on human health and environment is prohibited.
- According to the Montreal Protocol to which Turkey is a party, Methyl Bromide Application which is obliged to be repealed by 2015, has been terminated in 2007, earlier than required.
- The use of plant protection products has been authorised only to the persons holding "**Certificate for Plant Protection Products**".



Plant Passport System

- The studies concerning "**Plant Passport System and Operator Registering**" have been initiated.
- Arranging a Plant Passport has become compulsory before the transportation of plants, plant products and relevant materials.





Bovine and Ovine Registry Systems

- All the bovine and ovine animals in Turkey have been identified with ear tags and registered to **TURKVET - Veterinary Information Registry System** and **KKKS - Sheep and Goat Registry System**.
- Immediate access to lots of data has been granted including the number of animals and outbreak of diseases.
- Movements of the animals have been brought under control with these systems.



More Effective Combat Against Animal Diseases

- The legislation with regard to animal welfare infrastructure in compliance with the EU has been adopted.
- For effective struggle with "Foot and Mouth Disease", "Sheep and Goat Plague", "Bird Flue" and "Newcastle Disease", **Emergency Action Plans** have been adopted.
- For the first time a region in Turkey - **Thrace Region** has been identified as **free of Foot-and-Mouth Disease** and the situation has been approved by World Animal Health Organisation and European Union.
- **Animal population have been vaccinating regularly** against foot-and-mouth disease.



Successful Vaccination Campaigns

- With the successful implementation of vaccination campaign cattle plague disease has been eradicated. It is announced officially that **Turkey is being free of Cattle Plague.**
- In 2013, 11 million doses of vaccine were administered to ovine animals against sheep-goat plague without any charge. The aim was the **eradication of disease, initially in Thrace Region, in order to carry out controls in line with EU rules.**
- In order to control brucellosis, all cattle, sheep and goats are being vaccinated free of charge.
- Nation-wide struggle against rabies has been carried on. The prevalence of the disease has been decreased by vaccinating cats and dogs free of charge.
- Vaccination subsidy has been provided in order to increase the participation of farmers for the control and eradication of animal diseases.
- Turkey was officially announced as free of Cattle Plague.



Veterinary Border Inspection Posts

- “For controlling the animals and animal origin foods, the Veterinary Border Inspection Post Directorates number has been increased to 23 from 8 in the 2013-2014 period.”

Measures Against The Bird Flu (Avian Influenza)

- Early warning, rapid diagnosis and quick intervention mechanisms have been established for Bird Flu disease.
- For diagnosis of the Bird Flu, 3 laboratories at the category of biosafety level- III and 4 laboratories at the category of biosafety level (L2) –II have been established.



Disease Free Establishments are Being Supported

- For the purpose of effective combat against tuberculosis and brucellosis and to increase quality for milk production, disease free establishments have been supported since 2003

“ Microchip Identification of Equine Animals ”

- A national project has been carried out for struggling against the infectious anemia of the horses in which all the equine animals have been scanned in 25 provinces and have been marked with microchips. The disease has been brought under control by paying compensation for sick animals.

“Authorized Veterinarians”

- The veterinarians have been accredited and authorised to work in slaughterhouses to ensure food safety since 2005.

“Animal Welfare ”

- In terms of animal welfare international standards have started to be implemented.



Rural Development

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Rural Development Plan



- Rural Development Plan (2010-2013) has been implemented in order to develop the working and social conditions of rural population and to ensure sustainable development. The measures and activities needed to be implemented in rural areas and the resources required were determined in coordination with 24 related institutions and organizations.
- Rural Development Plan entered into force by High Planning Council decision dated on 05 August 2010. The Ministry of Food Agriculture and Livestock has been appointed as the Coordinator Ministry responsible for monitoring and evaluation of the Plan.

Rural Development Support Programme



- “Rural Development Support Programme” aiming the integration of agriculture and industry providing the producers with **50% grants** was initiated in 2006.
- Investments such as **processing, packaging, wrapping, storing of the agricultural products** and **purchase of machinery-equipment** have been supported under the programme.
- Within the scope of Rural Development Support Programme; **5.640 new processing facilities** have been constructed between 2006-2015. **1,1 billion TL grant** has been given to the enterprises.
- **Over 46 thousand persons have been employed** in these agrofood enterprises.
- **1,2 billion TL grant support** was provided for **262 thousand machineries and equipments** between 2007-2014.
- In total **2,3 billion TL** were paid for the beneficiaries under the Rural Development Support Programme for new facilities and machinery and equipment purchased by the farmers.



Pressurised Irrigation Investments

- For the farmers investing on pressurised irrigation systems 5 years termed and interest free loans have been provided under the free interest rate credit scheme.
- Within the scope of “Rural Development Support Programme” the pressurised irrigation investments have been supported by 50%.
- As a result of these two support programmes totally **6,2 million** decares area has been opened to irrigation with pressurised irrigation systems.



Agricultural Development Cooperatives

- In the period of 2003–2014, totally **2,2 billion TL credit** has been allocated for **1.858 cooperative** projects under the program named as “Social Support in Rural Areas”.
- Members of these cooperatives have received nearly 272.000 breeding heifers and nearly 414.000 breeding sheep in total under the support programme.
- Cooperatives are included in the free interest rate scheme in 2014.

Agriculture and Rural Development Support Institution (IPARD Agency)



- Under the pre-accession support of European Union for the period of 2007-2013, totally **800 million** euros has been allocated to Turkey to support rural development.
- By summing up the national contribution which has been **291 million euros**, totally **1,1 billion euros of public contribution** has been allocated to support the development of rural areas.
- The rural development funds have been used in line with the **Rural Development Programme (IPARD Programme)** in which the sectors and measures to be supported have been identified.
- The sectors targeted by the Programme are; milk, meat, fruit and vegetables and fishery sectors under the measures “investments in agricultural establishments” and “processing and marketing of agricultural products”.
- The programme also includes the measure “Diversification of rural development activities” in which on-farm activities (bee-keeping, pharmacological-aromatic plants and ornamental plants), rural tourism, local products and microenterprises and aquaculture production have been supported.
- The Programme has been designed to be implemented in 42 provinces out of 81 provinces of Turkey (20 provinces in the first phase and additional 22 provinces in the second phase of the Programme). With the start of second phase, the programme is implemented in 42 provinces currently.
- “Within the scope of IPARD II Programme **1,1 billion euro** (EU contribution **801 million euro**, national contribution **244 million euro**) is going to be allocated for the investors for the 2014- 2020 period.

R & D Studies

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Researches on Plant Production

- The R&D studies for developing F1 hybrid vegetable types were carried out in cooperation with Research Institutes, Private Sector and Universities.
- Rice hull seeds have started to be exported while being an importer a short time ago.
- First domestic potato variety is developed and submitted for registration.
- Half of the registered varieties in field crops are developed.
- Seedless lemon is developed and submitted to registration.
- Hulless barley is improved for diet and submitted for registration.
- Three sunflower cultivars with high and medium oleic acid are developed and one cultivar is registered.

Researches on Livestock



- National Sheep and Goat Breeding Project has been started in 2006 with 13 provinces and 12 different sheep and goat breeds. At present, project have expanded and it is continuing with 28 different sheep and goat breeds, approximately 950.000 heads sheep and goats in 58 provinces.
- For increasing milk yield of Awassi Sheep project has been implemented.
- Animal registration studies have been carried out. Totally 61 genotypes have been registered of which 38 breeds, 17 types, 3 lines and 3 hybrids belonging to sheep, goat, cattle, water buffalo, honey bee, chicken, rabbit, silkworm, cat, dog and pigeon species.
- National Anatolian Buffalo breeding project has been started with 11.000 buffaloes in 8 provinces in 2011 and, the project continue with 16 provinces and 4.000 farm total of 25.000 adult Anatolian buffaloes actively.
- National Anatolian Friesian Development Project has been implemented.
- Anatolian Merino Sheep Development Project has been implemented.
- Research on poultry and small domestic animals has been improved with the new hatchery activated in the Poultry Research Station in 2010.
- As a result of rehabilitation studies in layer hens, **3 layer parent and hybrid** line with best performance in Turkey's circumstances, are developed and registered. Also breeding eggs and chicks from these lines have started to be exported.
- In scope of the Chicken Breeding Project of Turkey, second broiler breeding project's infrastructure works are continuing.



Conservation of Genetic Resources

- Plant genetic resources have been conducted by “The Project on the Conservation of Plant Biological Diversity and Genetic Resources”. The conservation studies are going on by registering more than 12.000 plant species of which 4.000 are endemic.
- Two seed genebanks were established one of them is in İzmir in 1964 and the other world’s 3rd Biggest Plant Genebank was opened in Ankara in 2010. The capacity of the bank in Ankara which is 250 thousand samples and it is the 3rd biggest bank after China and USA. Our two banks have 120.000 seed samples.
- Since 2002, in total 61 genotype; sheep, goat, cattle, water buffalo, honey bee, chicken, rabbit, silkworm, cat, dog and pigeon species have been registered by Domestic Animal Registration Committee.
- Animal breeds have been conserved in 2 gene banks, institutions and breeders’ conditions within the scope of the project called ‘Conservation and Sustainable Utilization of Domestic Animal Genetic Resources’. One gene bank were established in Livestock Central Research Institute and the other in Marmara Research Centre belong to TÜBİTAK. The studies concerning with the cryoconservation and molecular identification of 6 cattle, 1 water buffalo, 13 sheep, 5 goat and 5 horse breeds have been carried out by using DNA, cell, embryo and semen.





Establishment of Agricultural Science, Technology and Training Centres

Agricultural Science, Technology and Training Centres have been established in order to increase yield, carry out new research, bring in qualified human resources together and sustain development of agriculture.

Within this scope,

- Agricultural Hydrology Research Institute in Menemen/İzmir, was transformed to **International Research and Training Centre (2009)**.
- In order to preserve and improve the rich biodiversity **Turkey Seed Genbank** with 250.000 material capacities was established in Ankara **(2010)**.
- **"The Drought Testing Centre"** was established in the premises of the Bahri Dağdaş International Agricultural Research Institute in Konya **(2010)**.
- **"The Aromatic and Pharmacological Plants Centre"** was founded in the premises of Western Mediterranean Agricultural Research Centre in Antalya **(2010)**.
- **"Bull Testing Centre", "Genbank" and "Biotechnology Unit"** was opened under Lalahan Livestock Central Research Institute in Ankara **(2011)**.



- **"Research Centre for Agricultural Practices for Energy"** under the Black Sea Agricultural Research Centre was established in Samsun **(2011)**.
- **"Development Center of Layer Hens"** was established in Ankara **(2011)**.
- **"GAP (Southern Anatolia Project) International Research and Training Centre"** was established in Diyarbakır **(2012)**.
- **"GAP Agricultural Irrigation Training Center"** was established in Şanlıurfa **(2014)**.
- **"Vegetative Biotechnology Centre"** under the Arable Crops Central Research Centre was established in Ankara **(2014)**.
- **"Vegetative Biodiversity and Geofit Research Center"** was established in Istanbul **(2014)**.
- **"Agricultural Biotechnology Center"** was established in Mersin **(2014)**.
- **"Modern Plant Breeding and Generations Gaining Center was established in Adana (2015)"**.
- **"Crawfish Research and Production Center was established in Isparta (2015)**.
- **Plant Biotechnology Research Institute in Ankara 2015**



Research Institutes Under Construction

- National Botanic Garden (Ankara)
- Plant Tissue Culture Center (İzmir)
- International rust diseases center (İzmir)
- 3. World Olive Collection Garden (İzmir)
- Biological Combat Center (Adana)
- Cold Resistance Test Center (Erzurum)
- Brooding Broiler Development Center (Eskişehir)
- Sheep Breeding Biotechnology Center (Balıkesir)
- National Food Starter Cultures Gene Bank (Bursa)
- Fisheries Gene Bank and Biotechnology Center (Trabzon)
- Orchard Training Center (Isparta)
- Biotechnologic Combat and Pest Control Technique Center (İzmir)"
- "Anatolian Brunette Development Center (Konya)"
- "International Livestock Research and Education Center (Ankara)
- Maize Research Institute (Sakarya)
- Limnological Research Institute (Isparta)
- Grapes Technology Research Institute (Tekirdağ)



Establishment of National Botanic Garden

The foundation of National Botanic Garden, which covers approximately 2.200 decares area, was laid in Ankara in October 2013

The National Botanic Garden will be opened by the end of 2015. In the Garden the number of plant species are going to be increased to 12.000 which is currently 1.500.

International Relations and European Union

Opening of Negotiations for Chapter 12 “Food Safety, Veterinary and Plant Health”



- The Negotiations with the EU started in 2005 and have been carried out in 35 Chapters. Three chapters are directly related to agriculture and under the responsibility of Ministry of Food Agriculture and Livestock;
 - Chapter 11 Agriculture and Rural Development
 - Chapter 12 Food Safety, Veterinary and Plant Health
 - Chapter 13 Fisheries
- The opening benchmarks concerning **Food Safety, Veterinary and Plant Health (Chapter 12)** have been fulfilled and the negotiations for this Chapter were opened on 30 June 2010.
- The procedures for the approval registration and control of all food production and selling places have been aligned to EU Standards.
- Within the scope of Turkey-EU Financial Cooperation;
 - **41 projects** with **245 million** euro budget have been completed.
 - **27 projects** with **155 million** euro are still proceeding.

Success Stories in FAO

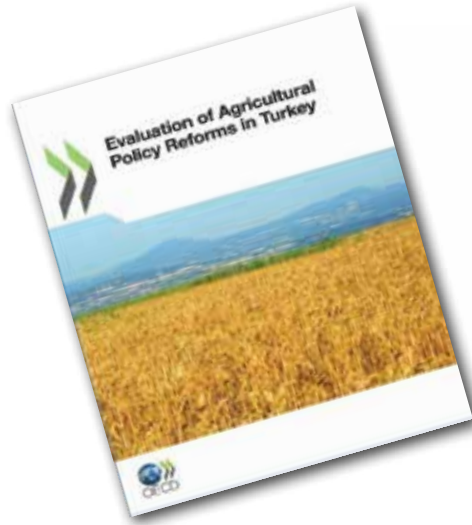
- The report “**Pathways to Success- Success Stories in Agricultural Production and Food Security**” that includes the success stories of different Countries in the field of agriculture and food was published in 2009 by Food and Agriculture Organisation of the United Nations.
- Turkey has taken its place as one of the success stories in the report named “Transformation in Agriculture to meet Global Demands”.

FAO Central Asia

Sub Regional Office

- **Central Asia Sub Regional Office of Food and Agriculture Organisation (FAO)** was opened in **Ankara**.
- More effective projects have been initiated with Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan in the field of agriculture.
- Turkey has gained a significant place in providing **10 million dollars** of funding for the projects in Central Asia via FAO Central Asia Sub Regional Office.





OECD Report “Evaluation of Agricultural Policy Reforms in Turkey”

- One of the most important economical organisations of the world– Organisation for Economic Cooperation and Development (OECD) published a report “Evaluation of Agricultural Policy Reforms in Turkey” in 2011 a long time after 1994 when the former report was published.
- Within the study which is composed of 6 parts; General information regarding the agricultural sector and macroeconomic improvements in Turkey; Changes in agricultural policy from mid-80’s up to date; Rural Development Programmes; Management of Agricultural and Natural Resources; Agricultural supports and Recommendations on Agricultural Policy Reforms have been included.
- **The report underlined Turkey’s agriculture as World’s 7th biggest agricultural power.** It is stated that the recent reforms have affected the sector positively by underlining the significant place of Turkey in terms of agricultural export values.
- It is stated in the “The Observation and Evaluation of Agricultural Politics Report” of OECD 2013, in 2012 when the ratio of the total amount of agricultural support to the income per capita average is **0,8%** in OECD countries it is **2 %** in Turkey and Turkey has one of the highest ratio of total support to the income per capita in OECD countries.



Turkey, the Most Successful Country in the World in Supplying Food to Its Citizens

- This is stated in the “Global Hunger Index Report 2012” of International Food Policy Research Institute (IFPRI).
- In the 1990-2012 period, **Turkey was the most successful country** among 15 countries which reduced their Global Hunger Index (GHI) more than 50% getting ahead of the countries which have great agricultural potential such as China, Brazil, Indonesia, Mexico.
- In the Report, Global Hunger Index in Turkey; was 5,7 in 1990 and it was 3,1 in 2001, it decreased to 1,5 in 2012.

Global Hunger Indexes

Countries	1990	2001	2012	2014
Turkey	5,7	3,1	1,5	<5
Argentina	2,4	1,8	1,9	<5
Mexico	7,9	4,3	3,3	<5
Brazil	7,4	5,4	3,4	<5
Iran	8,8	5,7	3,5	<5
Malaysia	8,9	6,6	5,2	5,5
China	11,8	6,7	5,7	5,5
Indonesia	18,5	14,2	12,1	10,1

Source: International Food Policy Research Institute (IFPRI) Report



Other Activities



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EXPO 2016

- EXPO 2016 Antalya, one of the most important organizations of the world, will be held in Antalya with the theme of “Flowers and Children”.
- More than 100 countries and 30 international organisations are expected to participate in the EXPO, which will remain open for 6 months on an area of 112 hectares. The target is that 8 million domestic and foreign tourists will pay a visit to the Expo 2016.
- Scientific, cultural and artistic events will also be brought together with the visitors within the scope of EXPO 2016 ANTALYA, where national and International conferences, panel discussions, meetings and seminars will be organized.
- The Horticultural Exhibition, which will also remain after its run on 23 April 2016, will not only make a great contribution to the development of tourism and trade in Antalya but also in the surrounding cities and the country in general.

Product Councils and Agricultural Unions

- Law on Agricultural Producer Unions has been enacted.
- Totally 900 producer unions and **8** central unions have been established in line with Law on Agricultural Producer Unions.
- Totally **270** Breeder Unions and **4** Central Unions have been established.
- Within the context of seed law, **7** sub-unions and **1** Central Union have been established.
- In the last **12** years, **4.255** Agricultural Cooperatives, **44** Regional Cooperative Unions and **3** central Unions have been established.
- Totally **9** Product Councils (Cotton, Nut, Olive-Olive oil, Citrus, Tea plant, Cereals, Legumes, Meat and Milk) have been established in order to define the national strategies for these products with the contribution of public institutes, NGOs and private sector on the product basis.



Agricultural Consultancy System

- The project called “Development of Agricultural Extension Services (TAR-GEL Project)” has been implemented since 2004. The Agricultural Consultants appointed by the Ministry provide free advisory services for farmers in villages/towns. In the beginning phase, 1.000 agricultural consultants were appointed in 2004.
- In the second phase, additional 2.500 contracted agricultural consultants were assigned in 2007.
- The number of agricultural consultants reached to 10.000 in 2012 providing the consultancy services **in approximately 35.000 villages/towns.**



Private Sector Investments in Agriculture

- Capital Investments have been encouraged via the new reforms on agricultural policies.
- Agricultural supports and incentives have been provided for the domestic and foreign investors who intend to make investment on the agriculture sector.
- The share of agriculture within the capital investments of private sector was **2,1 %** in 2015.
- In 2015, totally **14,2 billion TL** fixed capital investment of which **5,7 billion TL** by the private sector has been made in agricultural sector.
- Totally **107,6 billion TL** fixed capital investment has been made for agriculture sector between the years 2003-2015 of which **50,0 billion TL** belongs to the private sector in this period.
- In the field of agriculture, food, beverage and tobacco, the amount of Foreign Direct Investment (FDI) has risen to **1 billion dollars** in 2015 when it was **14 million dollars** in 2002 and **8,5 billion dollars** FDI was made In the last 13 years.
- Turkish banking system has also improved in line with the recent changes as well as the harmonization with EU. The banks have started to implement substantial supports via special campaigns for medium and large scale agricultural investments.



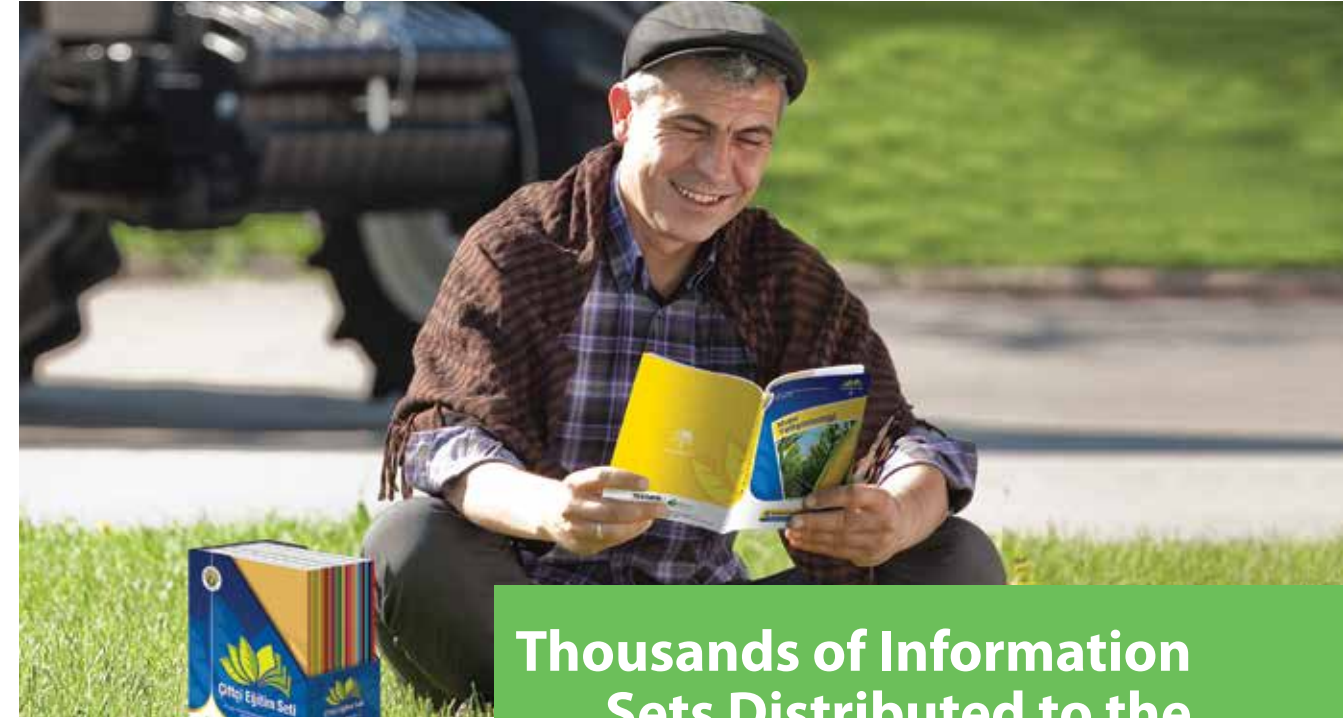
Agricultural Investors Guidance Center

- “**Agricultural Investors Guidance Center**” has been established within the Directorate of Strategy Development of the Ministry to give information on the opportunities and incentives provided for the national and international investors intending to make an investment in the field of agriculture.
- Advisory services are given on supports, incentives and also effective use of resources and production via web page (www.taryat.gov.tr), e- mail (taryat@tarim.gov.tr) and telephone.



Agriculture WEB TV

- For the first time, WEB Agriculture TV began broadcasting on the web address www.tarimtv.gov.tr in order to provide agricultural information, documentation and news on a daily basis for producers (2010).
- The aim is to convey the agricultural agenda and developments regarding the agricultural production, food safety, rural development and hobby gardening by reaching to producers via WEB Agriculture TV with a rich archive and expertise.
- Working like an "information bank" with over 300 educational movies and over 600 videos, **Web Agriculture TV** is being followed by 124 country and with "e-newsletter" application servicing news to 6.000 followers.
- **A model in European Union:** The Information Portal of European Commission "E-practice" has given place to "Web Agriculture TV" in its webpage as a Model study.



Thousands of Information Sets Distributed to the Farmers Free of Charge



- In order to increase productivity providing to meet developed agricultural technology and information needs;
- In total, 700.000 books are distributed to 7.000 villages.
- In the campaigns, totally 100 books which have 5.200 pages, have been distributed to the farmers by agricultural consultants who are working in 81 provinces.

Training Children on Food Safety



- 135.000 coloring books, short stories and activity books have been prepared in the context of "Safe Food, Healthy Life" for primary school students in order to raise awareness and knowledge of children about the importance of food safety.
- The books have been distributed to schools free of charge.

Human Resources of the Ministry



- Approximately 33.000 staff were recruited between the years 2003-2015 in order to increase the human resources of the Ministry.
- In total approximately 59.000 personel are working in the Ministry.



International Success in Horse Breeding

- The horse race programme has been accommodated with the world standards. An increase more than 90% has been provided in revenues for all kinds of parimutuels. With the race organizations, significant success has been achieved in international platform.
- For the last 12 years, **2.909** race horses were gained to horsemanship sector by General Directorate of Agricultural Enterprises (TİGEM), which has given major contrubution to "Purebred Arab Breeding".
- In 2014, 27% of Arabs, run in the horse races, were raised by TİGEM.



Environmentally Based Agricultural Land Protection Project (ÇATAK)

- The aim of the scheme is to reduce adverse effects of agricultural practices on environment, to prevent erosion, to sustain renewable natural resources, to protect the natural cover and the quality of soil and water in the vulnerable areas.
- The studies have been carried out on the sustainability of renewable natural resources, appropriate soil cultivation techniques, generalization of irrigation and similar cultural measures, decreasing the negative effects of agriculture by taking necessary measures, prevention of erosion, good agricultural practices and organic agriculture and raising awareness of local people.



- In the GAP region where 1,8 million ha land will be rejoined with water, the training studies to provide the adaptation of farmers with irrigated farming has been given utmost importance.
- The aim was to encourage modern techniques and methods of agriculture, to use the potential in agriculture at maximum levels and to improve alternative production opportunities.
- With the irrigated farming, the income level of region is planned to increase 5 times and the employment is to be provided for 3,5 million persons.

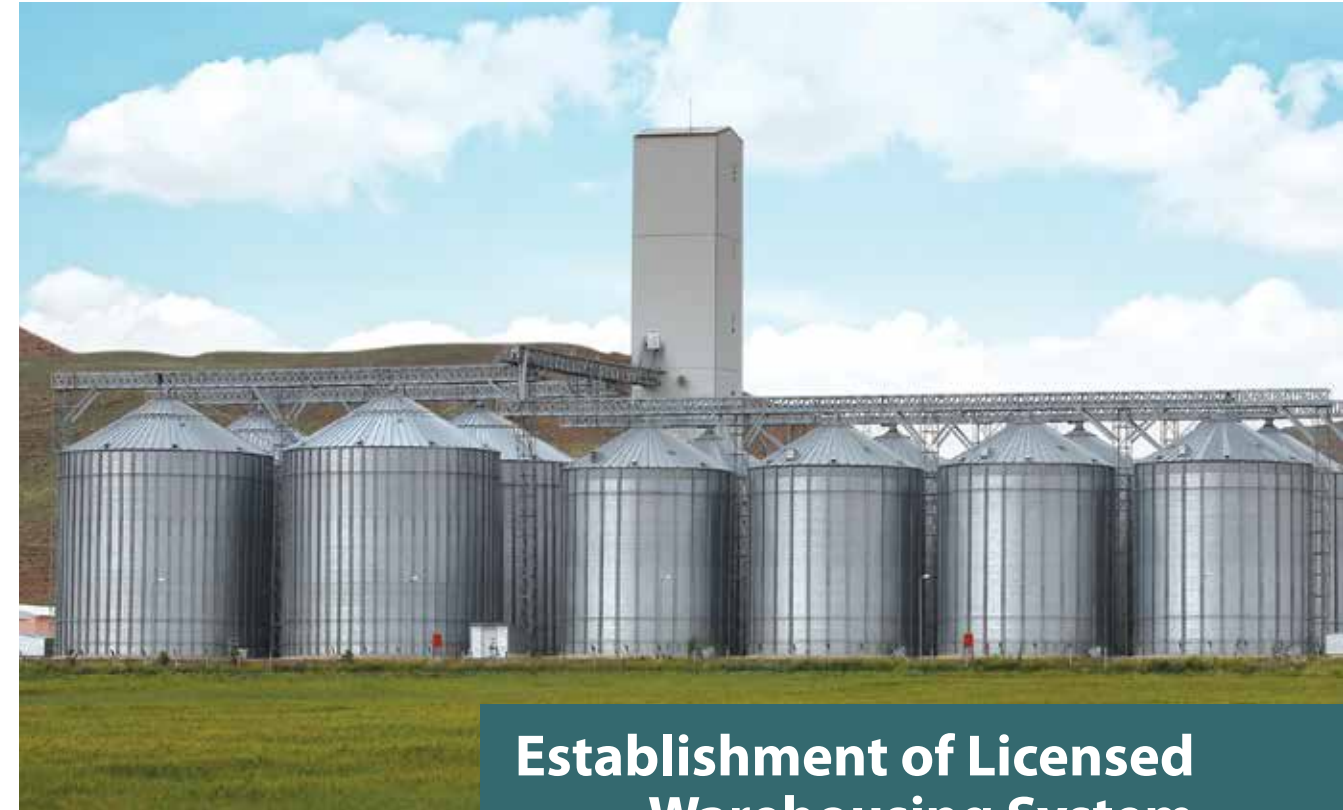
GAP ACTION PLAN

- The goal of the GAP Action Plan is to provide economic growth, social and rural development, to reach the national average in terms of the employment rates, to improve the infrastructure and to raise the quality of life of the people of the GAP region.
- For the 2008-2012 period 73 projects under four strategic development axes have been successfully implemented.
- In the compose of 2014-2018 GAP Action Plan, the Ministry of Food Agriculture and Livestock carries out **activities** under the axes of **“Acceleration of Economic Development”, “Improvement of the Infrastructure” and “Institutional Capacity Building”**.



Farm Accountancy Data Network (FADN) System

- Under the first twinning project performed between the years 2007 and 2009, Farm Accountancy Data Network system has been established in nine provinces namely Adana, Bursa, Erzurum, Giresun, İzmir, Konya, Nevşehir, Şanlıurfa, Tekirdağ in order to collect the accounting data of the agricultural establishments and to monitor the economic structures of agricultural establishments efficiently.
- The second twinning project started in 2011 in order to provide and extend the sustainability of the system. Under this project the provinces of Malatya, Samsun and İstanbul were included into the system. In 2012, 11 new provinces were included in the system as Çanakkale, Balıkesir, Manisa, Aydın, Denizli, Muğla, Burdur, Antalya, Mersin, Osmaniye and Hatay. Thus FADN system was established in 23 provinces.
- “Extending FADN and Ensuring its Sustainability” EU twinning Project was implemented in December 2012.
- In 2014 the number of the provinces is increased from 23 to 54.
- The studies are proceeding to increase the capacity of FADN and increasing the data quality.



Establishment of Licensed Warehousing System

- The Law on Licensed Warehousing of Agricultural Products was issued in 2005 which forms the basis for the system.
- The licensed warehousing system aims to facilitate the trade of agricultural products, to establish a system to keep the products in healthy condition and to make standardization of the products.
- By TMO, **13 licensed warehouses** (steel silo, horizontal warehouse) in 11 province are going to inaugurate in 2014 with a total capacity of **300 thousand ton**.
- Also, with a total **240 thousand ton** capacity modern warehouses are being built.



Sectoral Cooperation Meetings

- Sectoral Cooperation Meetings have been organised in 34 provinces with a total of 500 participants including producers, suppliers, industrialists and NGO's in order to determine the problems and solutions of subsectors with a participatory approach.
- "Regional Sectoral cooperation and common sense meetings" have been held in 7 regions
- The primary problems have been determined for the sector and action plans have been elaborated on the basis of subsectors.
- With the sectoral meetings on the provincial bases the agricultural potential of our provinces has been revealed, the projects which will improve the agricultural sector has been determined and "24 Action Plan" about implementation has been prepared.



Strategy and Action Plan to Combat with Drought

- Significant studies and implementation of extensive measures have been initiated to combat against drought which is one of the most important risk areas in agriculture. Legislative infrastructure has been strengthened.
- "Strategy and Action Plan to Combat against Drought" have been prepared.
- Crisis Centers for Drought at the provincial level have been established. Provincial Drought Action Plans have been prepared.
- Monitoring, Early Warning and Prediction Committee, Risk Assessment Committee and Agricultural Drought Management Coordination Board have been established.
- The studies for development and extension of varieties resistant to drought have been accelerated.
- "Agricultural Drought Test Center" was founded within Bahri Dağdaş International Agricultural Research Institute.

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Published by

Directorate for Strategy Development
Strategic Management Department
Agricultural Investors Guidance Center

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Publishing Board

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Canan DOĞRUYOL
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Graphic Design

Havva AKCAN

Printing

Department of Training, Extension
Services and Publication