REPUBLIC OF TURKEY

MINISTRY OF FOOD AGRICULTURE AND LIVESTOCK

“PROMOTİNG AGRICULTURAL VALUE CHAINS IN TURKISH AGRICULTURE”

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COMCEC

Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation

TURKISH REPUBLIC
MINISTRY OF FOOD AGRICULTURE AND LIVESTOCK

PLAN

INTRODUCTION

MACRO INDICATORS

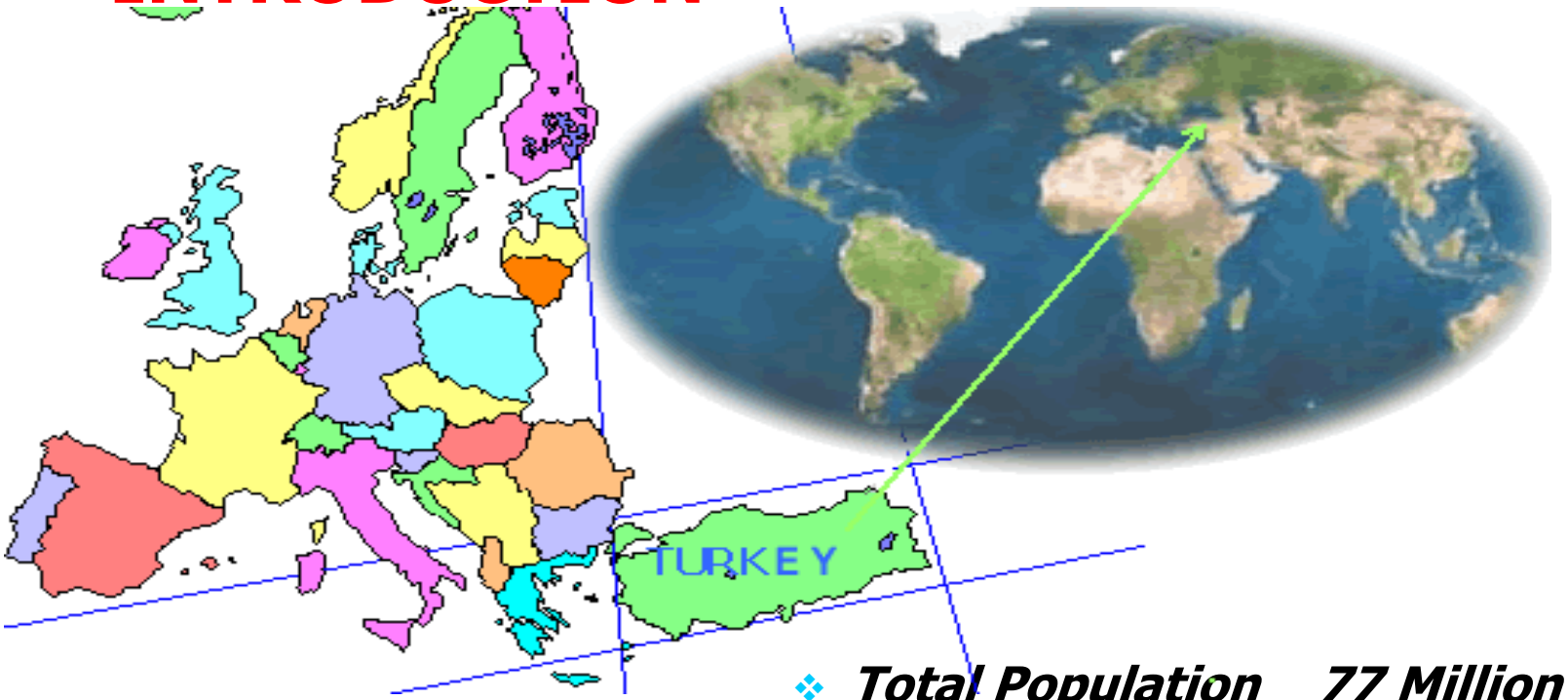
STRUCTURAL CHANGES AND REFORMS

2023 VISION

VALUE CHAIN

RECOMENDATIONS

INTRODUCTION



Land Usage	Mha	%
Agricultural Land	38,2	49,1
Cultivated land	**24,5**	**31,5**
Grassland	14,6	18,8
Forest Land	21,5	27,6
Setlement and others	3,5	5.0
Total	**77,8**	**100.0**

- ***Total Population 77 Million***
- ***Rural Population 16 Million (22%)***
- ***Urban Population 61 Million (78%)***
- ***81 - Province***
- ***930 - City***
- ***40.000 - Village and districts***

AGRICULTURE IN TURKEY'S ECONOMY

MACRO INDICATORS	2002			2014		
	Turkey	Agriculture	(%)	Turkey	Agriculture	(%)
Population (Million)	67,0	23,7	**35,4**	76,7	17,4	**22,7**
Employment (Million)	21,3	7,6	**34,9**	24,6	5,2	**21,1**
GDP (Billion $)	230,5	23,7	**10,3**	822	61	**7,4**
GDP per Capita ($)	3.492	1.064	**28,6**	10.807	3.475	**32,2**
Exports (Billion $)	36,0	4,0	**11,2**	151.8	17.7	**11.7**
Imports (Billion $)	51,5	3,9	**7,7**	251.7	16.9	**6.7**

Source: TURKSTAT

- ***Agriculture is improving, Turkey is developing.***
- ***Turkish agriculture sector has grown yearly 2,7 % between 2002-2014***
- ***While the agriculture GDP was 23,7 billion $ in 2002, It has reached to 61 billion $ in 2014***

TURKISH AGRİCULTURAL ECONOMY IS GLOBAL ACTOR

The first Agricultural Economy in EU

Turkey is sufficient country in terms of food

IN PRODUCTION	
Nut, Apricot and Cherry	1st
Melon, Water Melon, Strawberry, Fig, Lentil, Olive, Apple, Tomatoes, Tea, Antep pistachio, Nut, Walnut, Aubergine, Sheep milk, sugar beet and honey	2nd-5th
Wheat, Barley, Grapes, peach, Mandarin, Lemon, Almond, Olive oil and sheep meat.	6th-10th

IN EXPORT	
Nut, Apricot, grapes, fig and quince	1st
Wheat flour, Çerry , Yogurt, Macaroni, Lentil, lemon, Mandarin, Chickpea (Nohut), Orange, Olive and Tomatoes	2nd-5th
Grape, Tobacco, Chess nut, Strawberry, Olive oil, Egg, Aubergine and Peach	6th-10th

1,750 agricultural / food products were exported in 197 countries in 2014.

AGRICULTURAL SUPPORTS

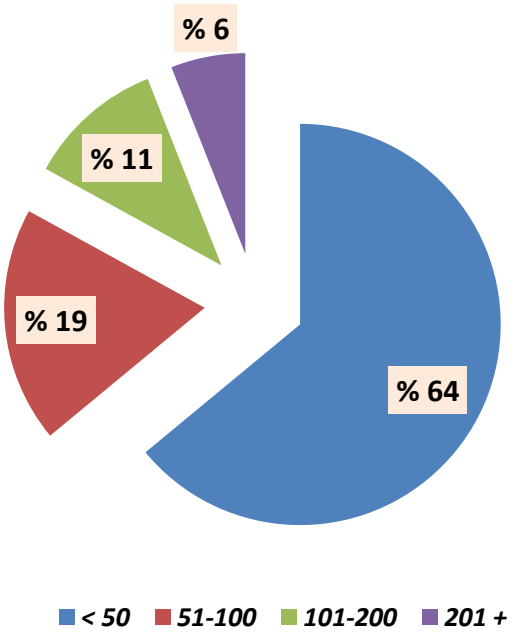
Support to agriculture was diversified and increased.

Supports	**2002** (Million $)	**2002 Rates (%)**	**2014** (Million $)	**2014 Rates (%)**	**2003-2014 TOTAL** (Millon $)	**2015** Budget (Million $)
Fuel, fertilizer, soil analysis, organic farming, good agriculture	-	-	962,4	**26,3**	**5.860**	**1.057**
Direct income support	623	**83,4**	-		**4.469**	**-**
Premium Support	74	**10,0**	1076,4	**29,0**	**8.222**	**1.226**
Livestock	33	**4,4**	1035,6	**28,8**	**5.913**	**1.181**
Rural Development	-	-	276,8	**7,6**	**1.072**	**200**
Agri-Insurance	-	-	142,8	**3,9**	**552**	**162**
Certified seeds / seedlings and other	-	-	113,6	**3,0**	**970**	**120**
Compensatory payments	16	**2,2**	49,2	**1,3**	**366**	**55**
TOTAL	**747**	**100**	3656,8	**100**	**27.424**	**4.000**

In 2002-2015 the amount of cash grants has increased 5.4 times.

Agricultural Enterprises in Turkey

- *In Turkey;*
  - *Total agriculture land ; 24 million ha*
  - *Total enterprise number 3,1 million*
  - *Average enterprise size 6 ha (12,6 ha in EU)*
  - *Parcel number per enterprise 10 parcels*
  - *65% of enterprises is 5 ha,*
  - *85% of enterprises has small lands less than 8 ha*



- ✓ *These indicators shows us most of our enterprises are small-scaled.*
- ✓ *This is the most important factor for limitation of small holders' market access due to high costs, low technology, insufficient finance, etc.*

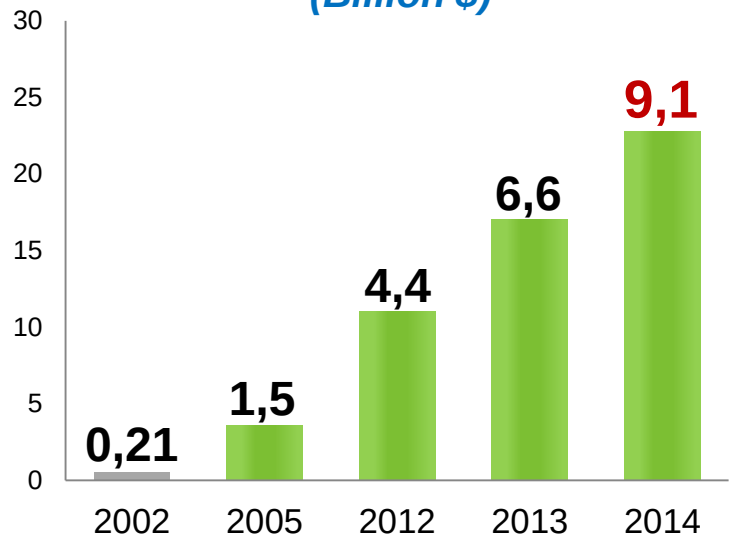
CREDIT USE HAS BECOME EASILY TO FARMERS

Total 84.7 billion $ agricultural credit has been used between 2003-2014 to farmers .

Agricultural Credit Use

(Ziraat Bank and agricultural credit cooperatives)

(Billion $)



BANK	CREDİT
Ziraat Bank	33,8 Billion $
Agricultural Credit Cooperatives	31,5 Billion $
Private Banks	19,4 Billion $
TOTAL	**84.7** Billion $

Agricultural Interest rate: 50-60 % in 2002

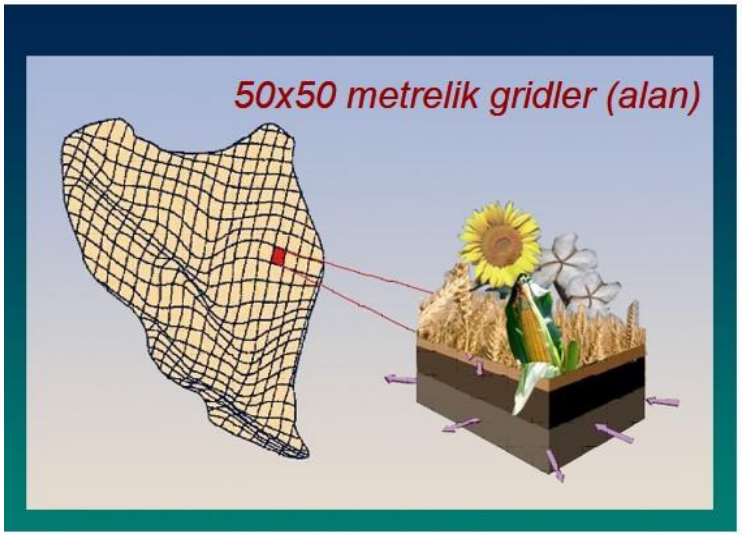
0-9 % in 2013

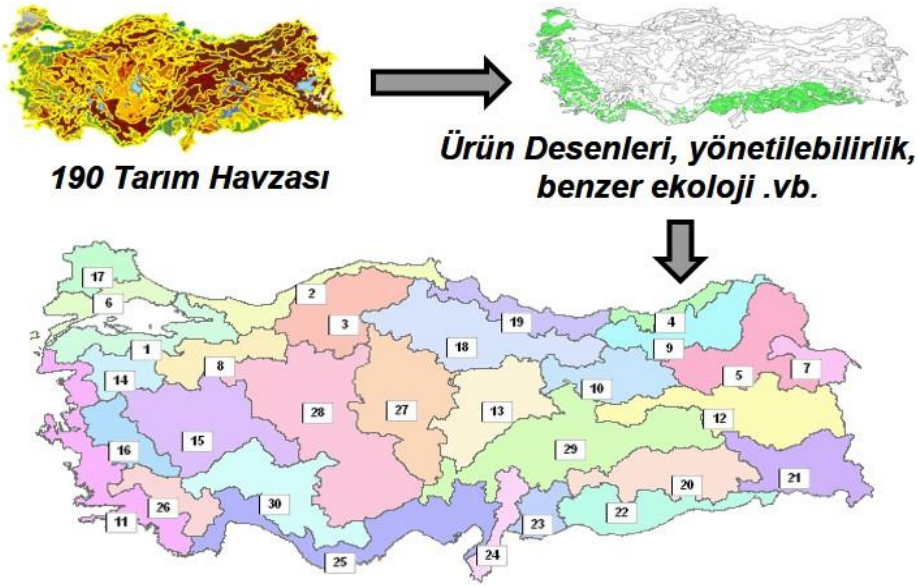
371.000 Livestock producers have benefited zero-interest loans as 3.5 billion dollars in the last three years

AGRICULTURAL BASIN MODEL HAS BEEN DEVELOPED

- ***30 agricultural basins* was determined by using *528 million data*.**
- ***The most suitable products was selected for each basin.***

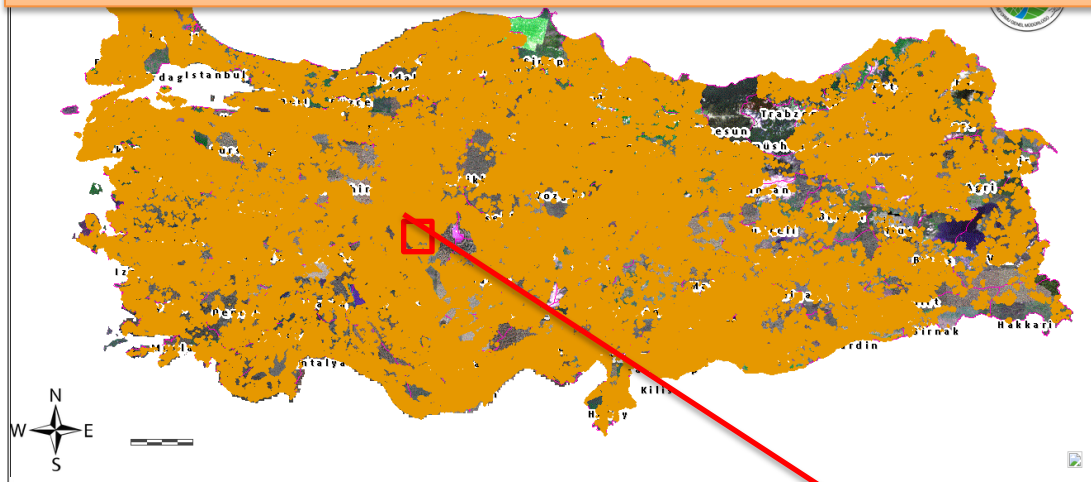
17 PRODUCTS HAVE BEEN SUPPORTED ACCORDING TO AGRICULTURAL BASIN.





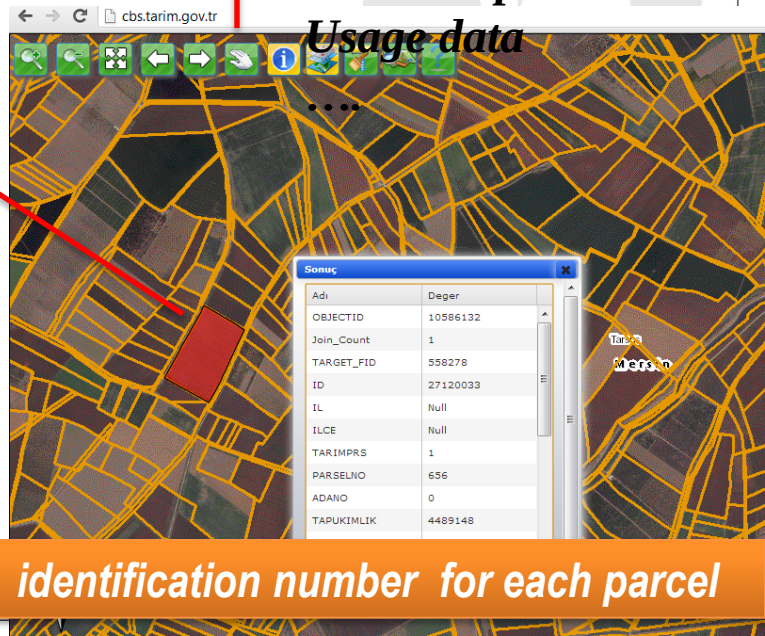
Land Parcel Information System

Agricultural parcels were digitized and Land Parcel Information System (LPIS) was estabilished



Farmer Register System

- Location data
- Parcel data (class, str, slope, dry, irrigated)
- Ownership data
- Usage data
- ...



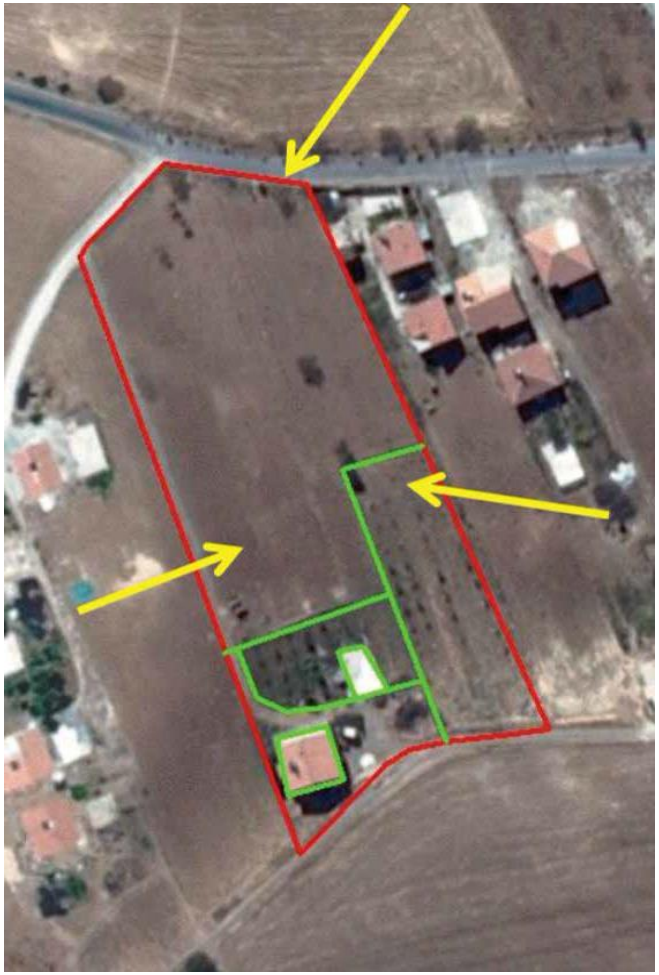
identification number for each parcel

According to data;

- **Agricultural Parcels : 32,5 million**
- **Agricultural Holdings : 3.1 milyon**
- **Avarage land size : 6 ha**
- **Parcels per capita : 10 parcel**

to monitor the parcel based production and supports

A SYSTEM THAT TRACKS AND CONTROLS AGRICULTURAL LANDS FROM SPACE HAS BEEN ESTABLISHED



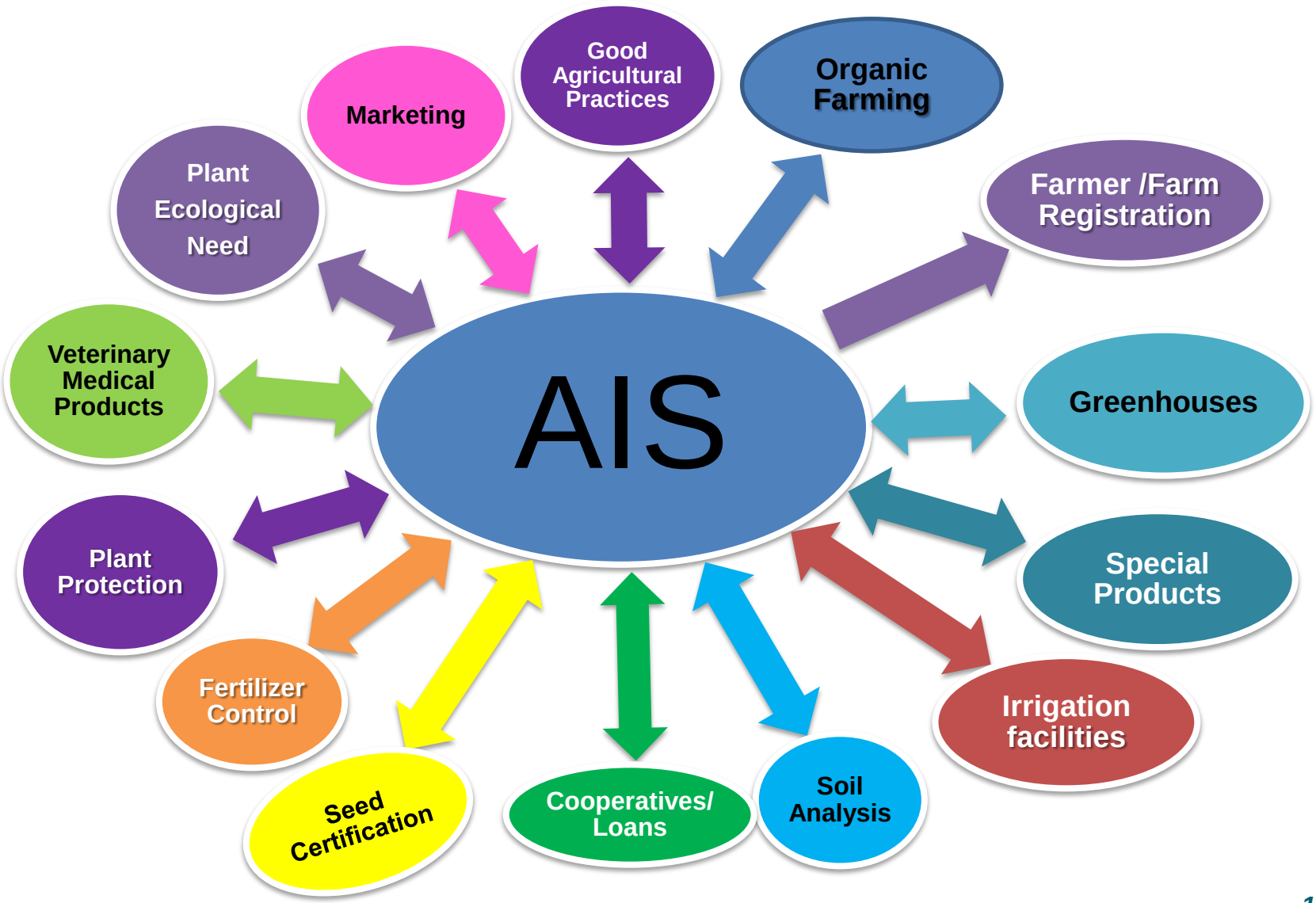
All stages from production to consumption are being controlled by using high levels of technology in agricultre.

- ***By using sattelite 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.

AGRICULTURAL INFORMATION SYSTEM CONSIST OF MORE THAN 40 MODULS INTEGRATED



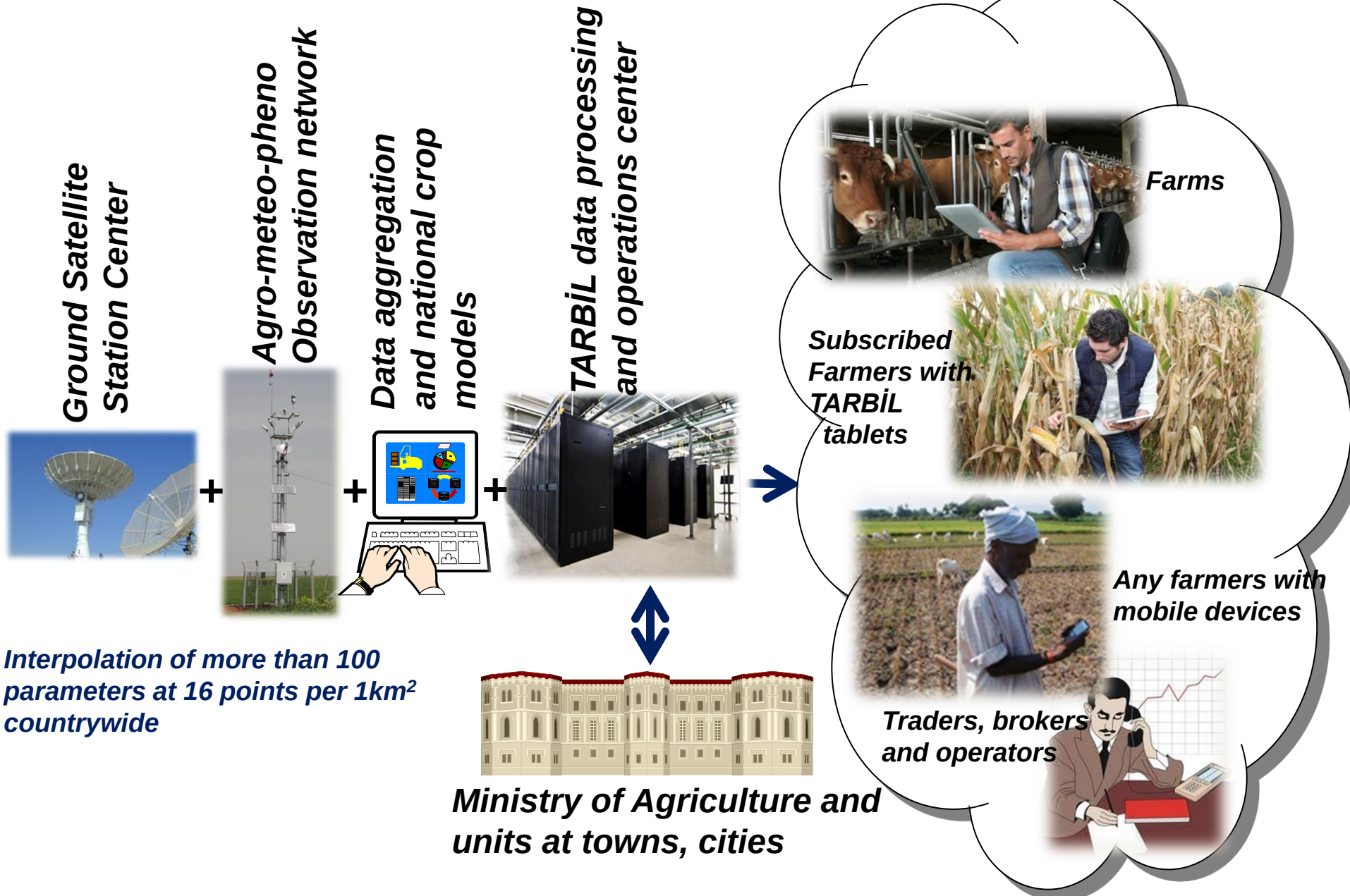
AGRICULTURAL INVENTORY IS BEING DETERMINED ACCURATELY AND CURRENTLY BY MOBILE TECHNOLOGIES

- *In villages, all information from agricultural production to animal health is logged on to the system on tablet computers by 10.000 TARGEL 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

Fusion of periodic and non-periodic spatio-temporal data from land and space



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2023 Vision in Agriculture

Our main target for Turkey is to

- be among the top 5 Countries in the world in Agricultural Economy
- have an Agricultural GDP of 150 Billion USD
- keep sustainable agricultural growth
- have agricultural export over 40 Billion USD
- be an arbiter in the World and its region for Agricultural R&D

RURAL DEVELOPMENT (1) (2006-2014)

Processing, packaging, storage investments, machinery and equipment procurements, the drip-irrigation investment

→ ***50 % Grand***

ECONOMIC INVESTMENTS

- ***5,450 agro-industrial plant,***
- ***TL 1 billion grant,***
- ***46 thousand staff***

MACHINE-EQUIPMENT PURCHASES

- ***262 thousand machinery and equipment***
- ***1 Billion Grant***

WATER PRESSURE INVESTMENTS

- ***9,000 projects in 129 Million Grant***

TOTAL SUPPORT FOR RD : 2.2 BILLION

SUPPORT FOR SMALLHOLDER FARMERS

There are various supports both for existing producers and investors

	Provider of the support	Target group	Production based supports	Investment based supports[1]
A Agriculture supports				
Agricultural basin model	Ministry of Agriculture	All (small and large farmers/investors)	✓	✗
Livestock breeding			✓	✗
Certified seed and seedling			✓	✗
Organic farming			✓	✗
Farm advisory services			✓	✗
Soil analysis, duel and fertilizer			✓	✗
More efficient fight against animal disease			✓	✗
B Investment incentives[2]				
General incentives	Ministry of Economy	Medium/large size investors	✗	✓
Regional incentives			✗	✓
Agricultural credits	Ministry of Agriculture		✓	✓
GAP[3] DAP programme			✗	✓
C EU-IPARD[4]	Ministry of Agriculture	Medium/large size investors	✗	✓
D Rural development support	Ministry of Agriculture	Small farmers and investors	✓	✓

Producer Organisations in Turkey

- *Organizing farmers: Agricultural Cooperatives', Producer Unions and Breeding Unions establishment procedures,*
- *Principal agreement changes and legislative works*
- *Collaboration and cooperation with International producer organizations*
- *Harmonization with the EU of Turkish agricultural organizations during the Accession Period to the EU*
- *Support and audit organized farmers,*
- *Enpowering institutional capacity of agricultural organizations*

AGRİCULTURAL DEVELOPMENT COOPERATİVES

- ***Cooperatives has been supported.***
- ***In the period of 2003–2013, totally 2,2 billion TL credit has been allocated for 1.860 cooperative projects.***
- ***These projects supported totally 178 thousand families which have been also employed.***

Targets of Organizations

Well developed producer organizations are utmost important for improving agriculture and rural development.

- ***Organizing farmers,***
- ***Support and audit organized farmers,***
- ***Enpowering institutional capacity of agricultural organizations***
- ***Cooperation with international agricultural organizations***

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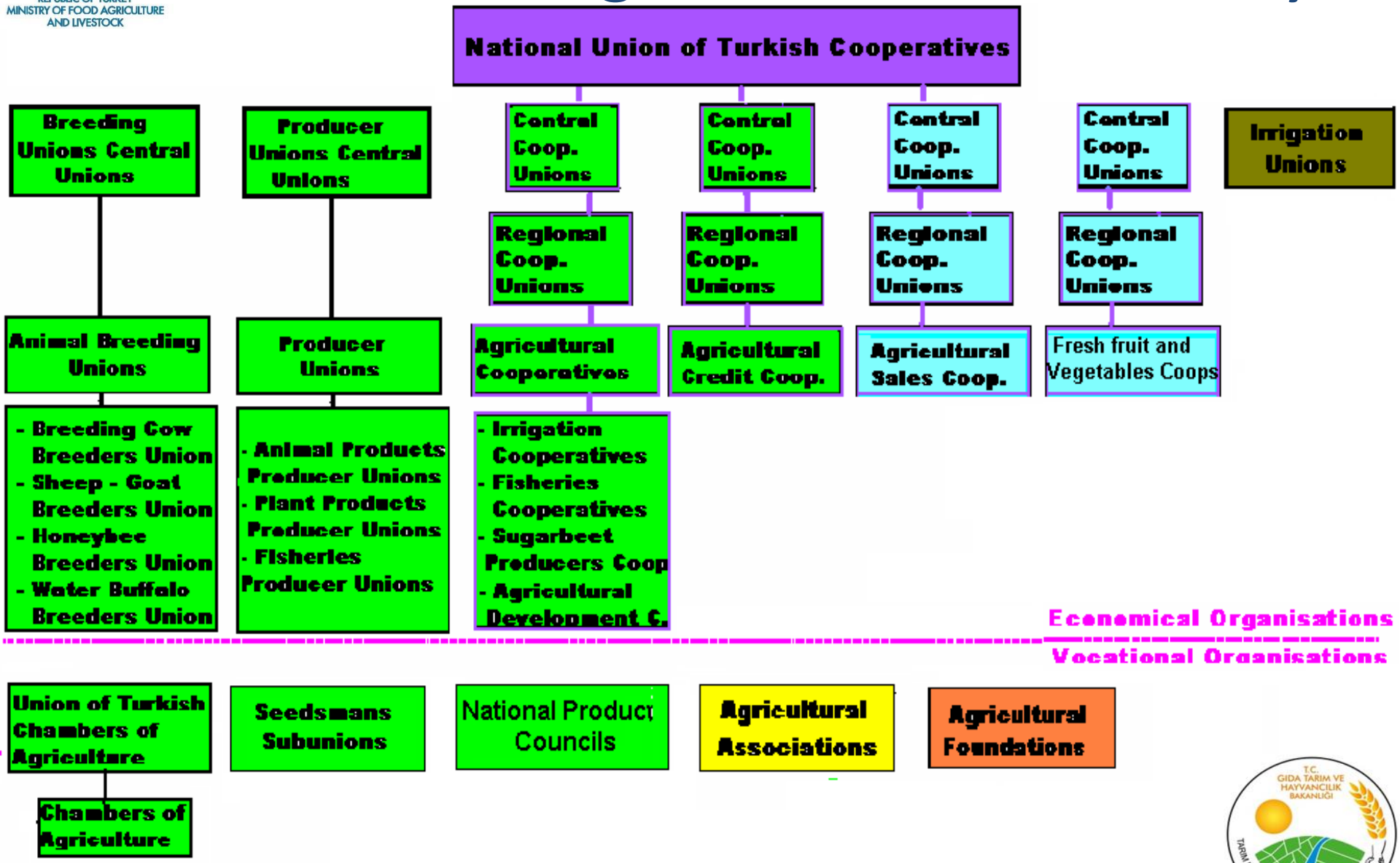
Producer Organizations in Turkey



T.C. GIDA TARIM VE HAYVANCILIK BAKANLIĞI
TARIM REFORMU GENEL MÜDÜRLÜĞÜ

Market Access and Value Chain of Small Holders

Small Holders;

- ✓ *Limited access to domestic market,*
  - *They can't reach to the market by their own opportunities*
  - *High number of mediators in the case of market access*
- ✓ *Selling products to the local markets,*
- ✓ *High social ties among themselves*
- ✓ *Disadvantageous in financing, technology, education and competition in comparison to big marketing organizations,*
- ✓ *Small role in value chains and gets a small share of total added value,*
- ✓ *They represent a community that does not have sufficient possibilities of product marketing and local and regional storage.*

Market Access and Value Chain of Small Holders

Small Holders;

- ***They are less affected by the market movements due to self-consumption production.***
- ***Have a vital role in food security, sustainability, traditional production methods and protection of biodiversity***
- ***Ensures food security***
- ***The only way to implement these roles is to increase their access to the market.***

➢ ***In this period, marketing is the most important problem for small holders.***

➢ ***The strongest way to compete with industrial big scale farms for marketing in free market economy is to collaborate under cooperative structure***

National Marketing Strategy and Management

➢ ***As a national marketing strategy, in Turkey, small holders should access to the market via organizations.***

International Marketing Strategy

- ***Small holders access to the market via producer organizations***
  - ***(10th Five Year Development Plan- 2014-2018)***

Related Institutions

- ***Ministry of Food, Agriculture and Livestock***
- ***Ministry of Customs and Trade***
- ***Ministry of Interior***

MFAL Policy

- ***13. Strategical Objective in 2013-2017 MFAL Strategic Plan***
- ***In-place evaluation of agricultural products and increase the added value***

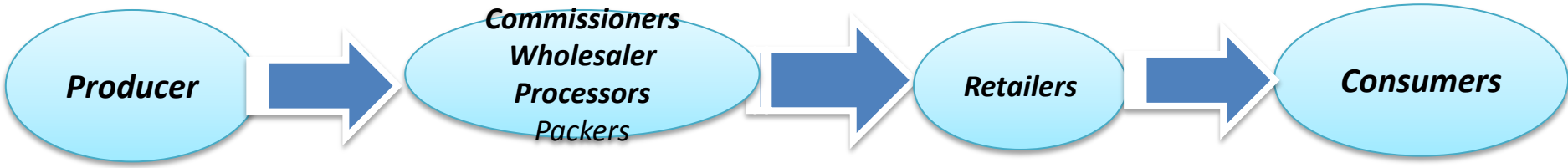
Ministry of Customs and Trade

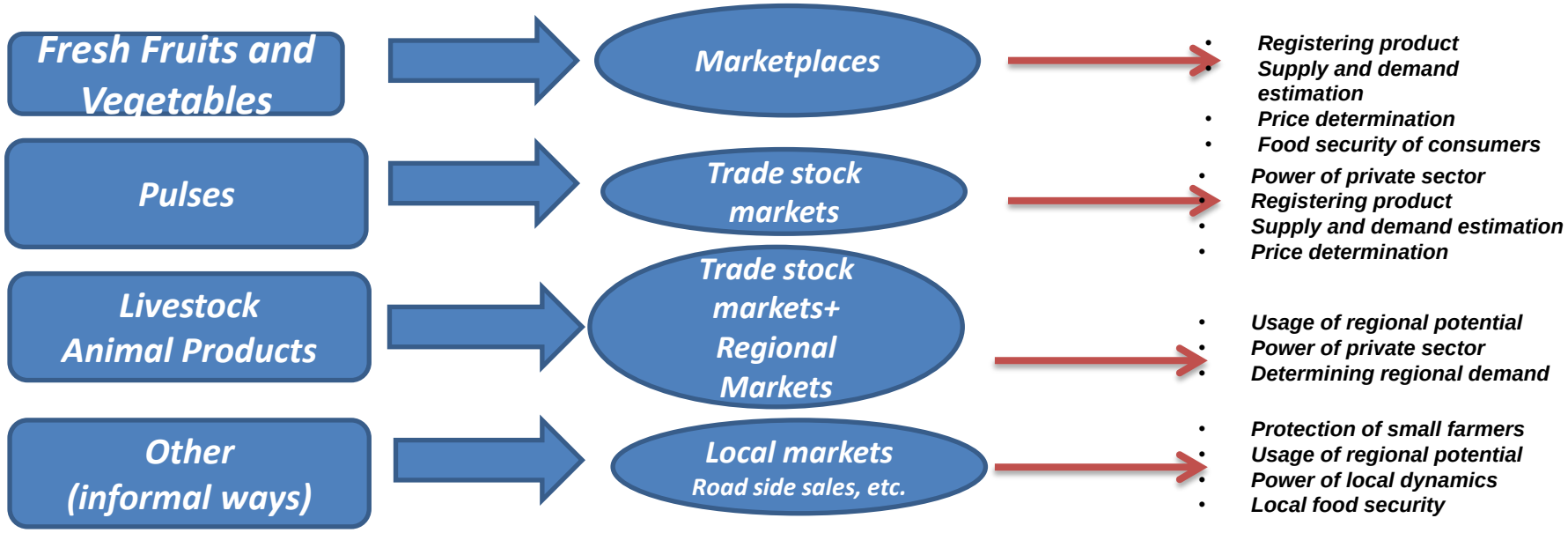
- ***Legislation for marketplaces***
- ***Regulations for domestic and foreign trade***

Ministry of Interior

- ***Municipalites are responsible from marketplaces management and administration.***
- ***Local markets***

Marketing Channels





The policy of our ministry is to increase access of small holders via organizing

Producer Organizations + Commissioners + Wholesalers + Processors + Markets

80% of products produced in Turkey are marketed this way.

Agricultural Products Marketing System

- ***More product diversity***
- ***Marketing channel for product***
- ***Multiple actors in marketing***
- ***Free market economy***
- ***More role for private sector***
- ***Public regulatory role (audit, monitoring and intervention)***

Actors

	Product Groups											
	Grains	Pulses	Fresh Fruits and Beg.	Dry and hard shell fruits	Cotton	Sugarbeet	Sunflower	Tobacco	Tea	Livestock	Dairy and animal prod.	Dairy prod.
Public (TMO, ÇAYKUR, TİGEM vb.)	X					X		X	X		X	
Private Sector	X	X	X	X	X		X	X	X	X	X	X
Cooperatives and Unions (16.500)	X			X	X	X	X		X		X	X
Trade Stockmarkets (113)	X	X		X	X		X			X		
Wholesaler and retailers		X	X							X		X
Local Markets (81 cities)		X	X									

Role of Producer Organizations in Value Chain and Its Effect on Competition Advantage

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Producers

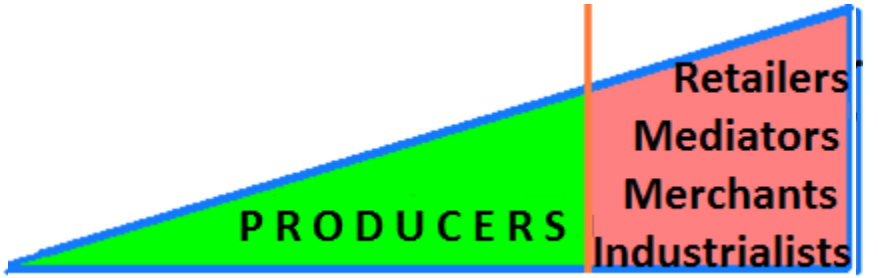
s u p p l i e r s

Üreticiler

Farmers

3,1 million Agricultural Enterprises (Farms)

Cooperatives



Value Chain

- Contracting
- Supply
- Marketing
- Finance
- Procecing
- Clustering

Consumers

76 million population
30 million tourists
2,5 million refugee

Food aids

Export

Russia
EU
Middle Asia

Market Access and Value Chain of Small Holders

Current Problems;

- ***Non-institutionalised Organization***
- ***Low level of education***
- ***Lack of capital***
- ***Lack of access to the market data (price, production, demand, etc.)***
- ***Scarcity of statistical data regarding the small holders***
- ***Lack of production with packages and brand and lack of competition as a result***

Market Access and Value Chain of Small Holders

Ongoing studies;

- ***Supporting organizations***
- ***Education and extension supports (Certified agriculture advisory)***
- ***Rural development support (50% grant to proccessing and storage facilities)***
- ***Licensed storage***
- ***Extensification of contractual agriculture***
- ***Updating marketplace law (20% quota for producer organizations=***
- ***Financing supports (credit interest supports)***
- ***Parcel based production for supply control and yield estimation***

***Value chain** is basically a systematic approach examining the development of the competitive advantage. Hence the model is used as a tool for determining competencies and identifying operations that create competitive advantages.*

It is not possible to identify competitive advantage by just reviewing an institution. The competitive advantage stems from various operations the institution is implementing such as design, manufacturing, marketing, delivery and product support services.

In order to have a better view of the operations creating competitive advantage, it is necessary to start with the value chain and to identify operations specific to the institution

An organisation's (institution's) competitive advantage stems from skills for better performance of the operations in the value chain as compared to competitors.

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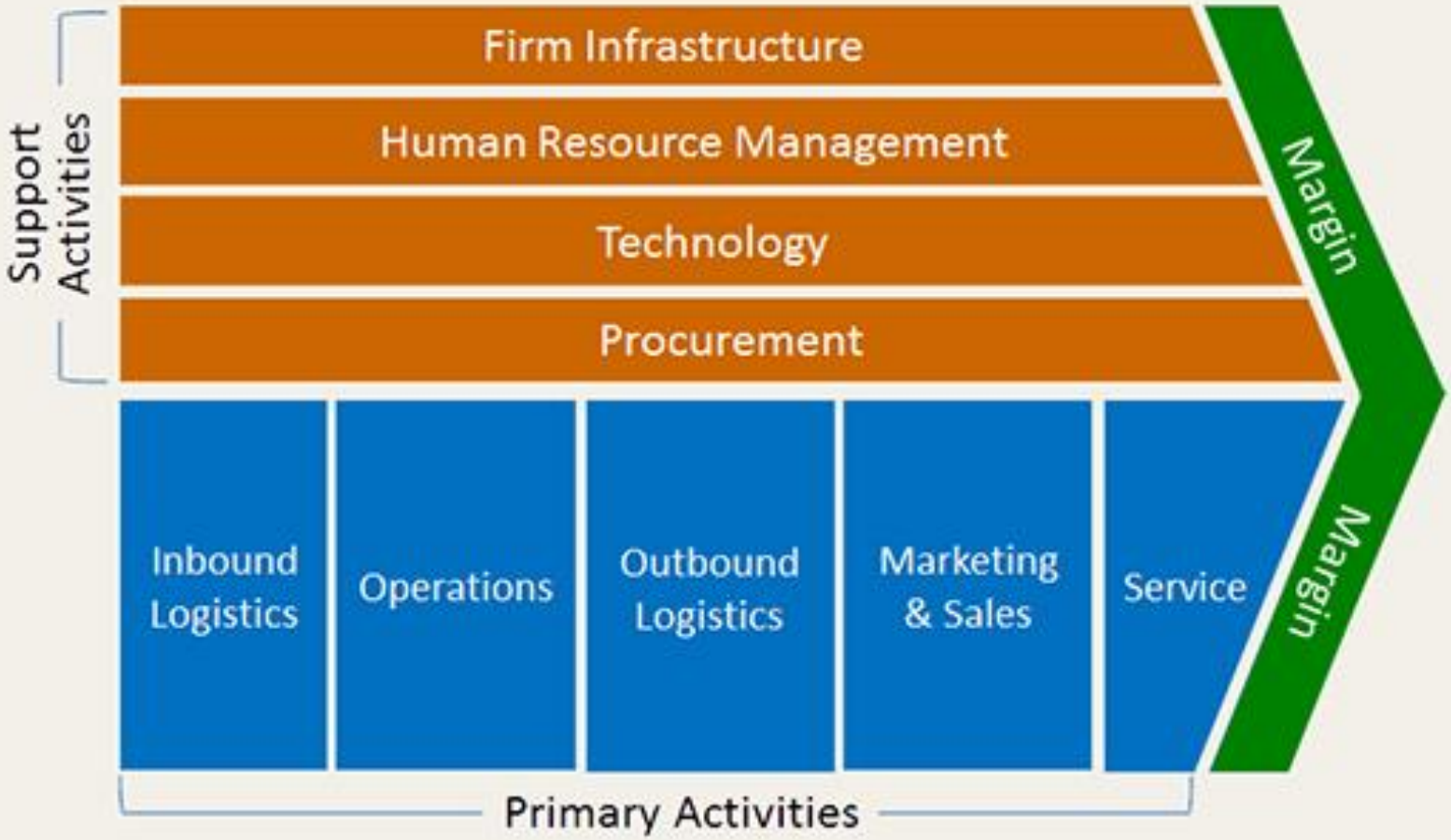

Figure 1 - Generic value chain

Value Chain Analysis

Value Chain Analysis, on the other hand, is the detailed study of the interconnected set of activities starting from raw materials (or most of the time from idea and design) to delivery of the final product (including recycling) to customers through distributing channels.

Value Chain Analysis decomposes the operations of an institution based on their strategic importance and questions the effect of each operation on the cost and value.

Value chain follows these paths in terms of main activities:

Starts with idea, design or raw materials, continues with manufacturing, marketing, sales and distribution and at the final stage reaches the end user and collection for recycling.

Supporting activities such as procurement, human resources, research and development, finance also provide input to main activities enabling them to be more efficient and effective.

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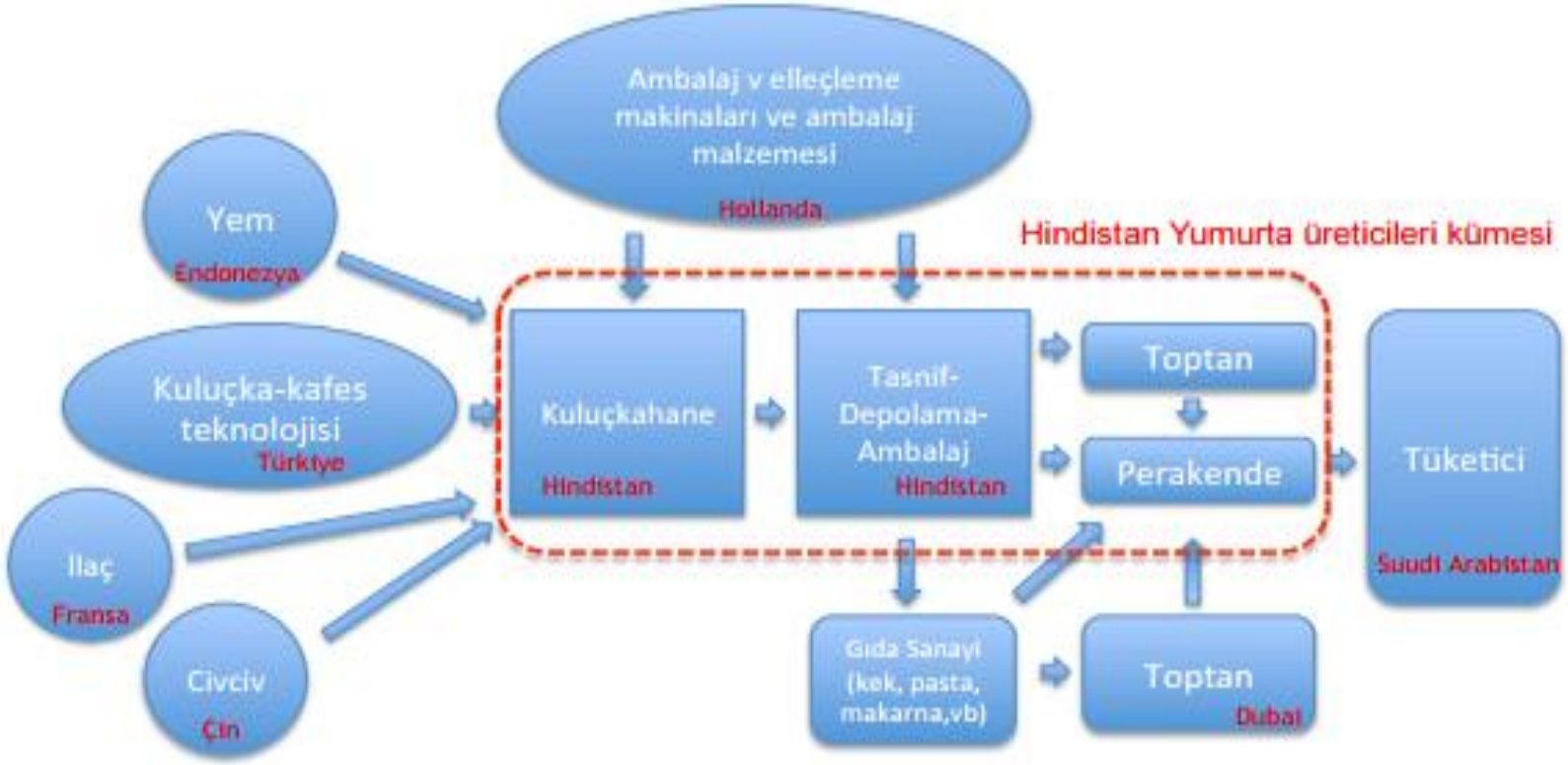
Realising "Leverage" opportunities which is presented below play an important role in increasing competitiveness of SMES both in local and in international markets.

Şekil 8. Küresel Değer Zinciri Analizi (Yumurta Sektörü Örneği)



"Leverage" in Global Value Chains

***Leverage** is an innovation increasing added value and is one of the most important factors for the survival and growth of institutions. Leverage introduces great opportunity for institutions within clusters by providing a medium of innovation.*

***Process leverage:** It is the improvement of effectiveness and efficiency of business processes with respect to competitors by increasing the efficiency of specific organisations in the value chain (e.g., increasing stock turnover rate, reducing faulty production) or those of the processes between them (e.g., reducing delivery periods, faster delivery).*

Product leverage: ***Renewing old products or designing and manufacturing new products and introducing them to the market faster than the competitors.***

Functional leverage: ***Attaining new capabilities within the organisation by changing, adding and differentiating some activities (e.g., outsourcing accounting and logistics) or introducing new links within the value chain (e.g., making a manufacturer more design oriented by adding a design department).***

Chain leverage: ***Having more competitive or higher value added products by changing the value chain (e.g., manufacturing of TV sets or computers by an electronic parts supplier and taking part in a new value chain)***

Global leverage: ***Attempt to include a function realised in another country or region into the value chain or extending the value chain to other countries (acquisitions, partnership, direct investment to foreign organisations).***

Management of Supply Chain and the Importance of Competitiveness Strategy in the Value Chain

Deficiencies in or lack of Strategic Management Structure and / or poor connection between supply chain development programme and performance management targets is a major threat to Supply and Value Chain Management.

A Competitiveness Strategy monitored by analysis of data enables Cluster stakeholders to gather under an ultimate common goal.

Importance of Data Mining

Common grounds of Global Supply and Value Chain analyses which are proven to be successful and created considerable added value is the fact that they made detailed records of markets and organisations, they converted these records to data to be processed and they were shared with the analysing institutions.

Value Chain analysis requires study of sub-sector data and use of detailed analysis techniques, which ensures that better results are achieved in cases where the economy is registered and management practices are systematic and value based.

Results and Evaluation

With the analysis and understanding of four basic common strategic areas for producers or clusters; players, opportunities for added value, network of invisible links, which are not only within the cluster itself but for systems outside of the cluster will be unveiled for the cluster and cluster members. This will present a global leverage and business model opportunities and create an indispensable value.

For competitiveness, the importance of cooperation networks becomes more and more important every day. This makes the cluster of organisations within a certain geography to be insufficient and conversion of Value Chains to Global Value Chains by extending their network to international market becomes inevitable. Consequently understanding Supply Chains and Regional or Global Value chains becomes more and more important.

This text provides a general framework for value chains and each producer or cluster should design and implement the value chain analysis depending on their capacities and priorities.

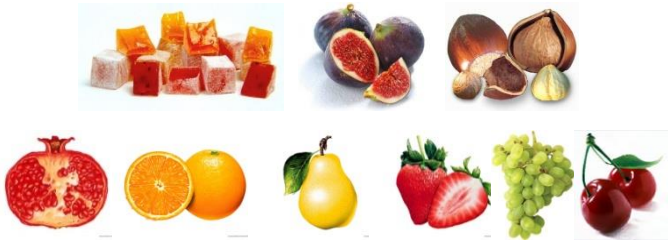
Recomendations for Member of OIC

In a World where agriculture for ensuring Food Security and Food Safety is becoming more important than armies for the total sovereignty of a country, Islamic countries must utilise their agricultural potential well:
Producer organisations in the agricultural sector need to be developed and financially strengthened for value chain in COMCEC countries.
For this purpose, following should be done:

- ***Sharing of information and experience between producer organisations on technical training and expert exchange (designed to transfer experiences)***
- ***Cooperating with producer organisations, that are able to invest in production, processing and storage of agricultural products, and their counterparts in COMCEC countries on renting of land and joint investments***
- ***Establishing joint brands that will allow for opening up to global markets***
- ***Jointly organising trade fairs and exhibitions or attending globally acclaimed major activities with joint stands***
- ***Accepted project:*** ***The Establishment of Database, Network Connection and Web-pages of Smallholders Farmer's Agricultural Cooperatives between COMCEC Member States***

BRANDING IN AGRICULTURE

- *Turkish nut*
- *Turkish delight*
- *Turkish apricot*
- *Turkish fig*
- *Turkish grape*
  and lots of other products…



In Turkey,
144 DIFFERENT
products have commercial brand quality.

Turkey's most important sector which has the tendency towards branding is ***AGRICULTURE****.*

- *In production of those branded products, the biggest role belongs to the small farmers.*
- *More chance of competition can be reached in the domestic and international markets via branding with organizations.*

Examples of Best Practices

- Cooperatives;
  - Tire and Bademli Coop.
  - Agricultural Credit Cooperatives
  - Agriculture Sales Cooperatives; Trakyabirlik, Tariş
  - Beet Producers Cooperative Association (PANKOBİRLİK)
  - Milk Producers Union
- Breeding Association;
  - İzmir Breeding Sheep Goat Association
- Private Sector; Konya Şeker
- Individual Achievements;

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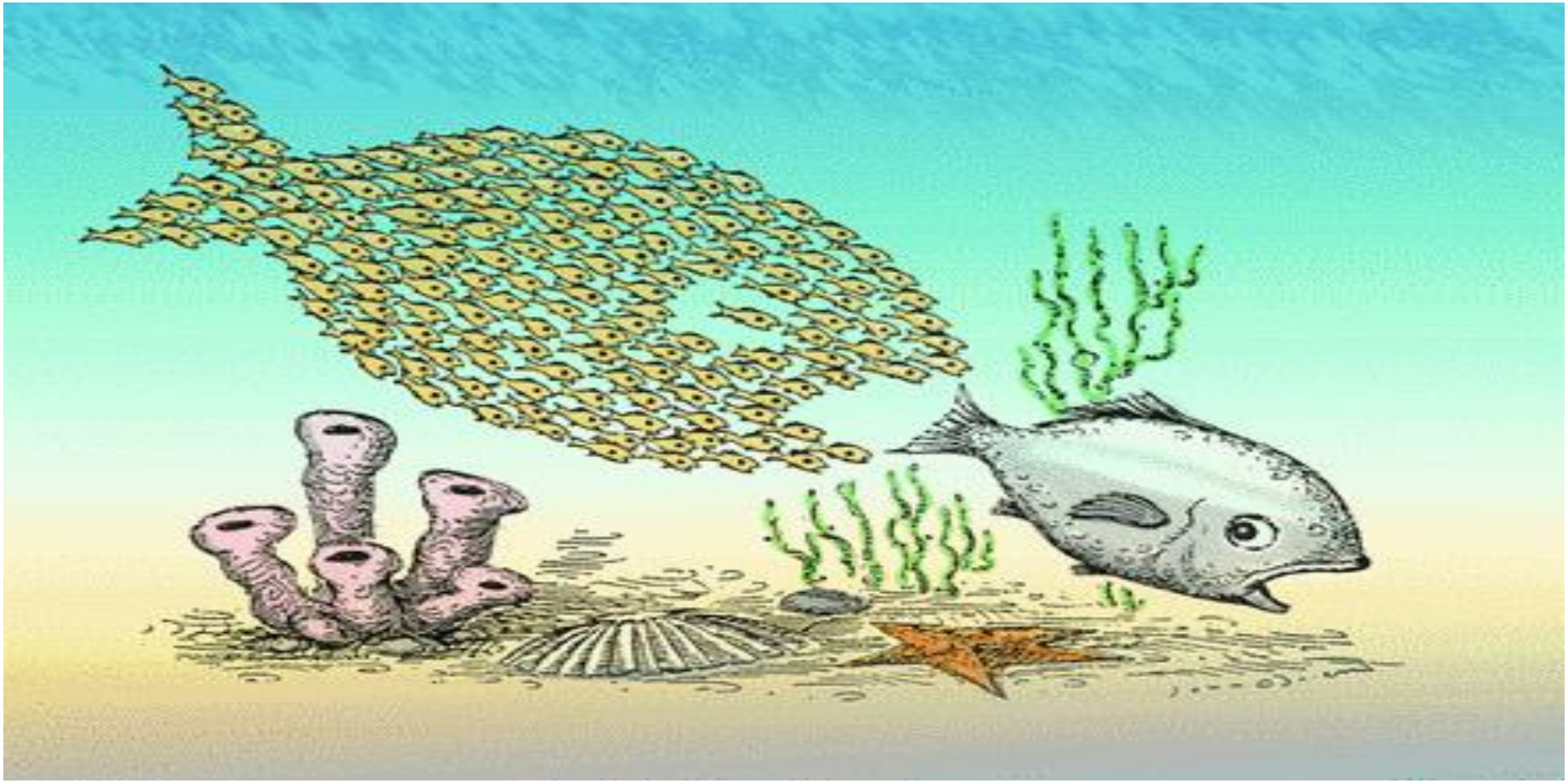
MINISTRY OF FOOD AGRICULTURE AND LIVESTOCK

One of the main factors behind the success of farmers of developed countries is organazing ability



Historic Peninsula, Istanbul

Thanks for listening

Questions, comments and suggestions are welcome

REPUBLIC OF TURKEY
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