# Chapter 23 A Comparative Analysis of the Organic Food Market

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in Turkey, EU, and US

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#### **ABSTRACT**

Conventional agriculture has long been criticized about its negative externalities on issues like public health, environment, biodiversity, and all ecological systems on the planet such as environmental pollution, soil erosion, reduction of animal welfare, and negative impacts of GMOs. As an alternative production system to address these problems, organic agriculture has been developed worldwide since the 1970s. In this chapter, an overview of organic agriculture and food market is given and a comparative analysis between organic agricultural markets in EU, US, and Turkey is made after an outlook on the world organic food market. It is seen that EU and US are forthcoming leaders in the organic food market, whilst Turkey remains behind many developed countries in terms of organic production, per capita consumption, and retail sales.

#### INTRODUCTION

After the Second World War, there have been significant improvements in chemical industry and other sectors that affected agriculture as well. Gaining more returns in yields and profits in land and reaching a higher amount of food products have become possible since 1960's. This accelerated increase in production is related with a new agricultural and technological phase, called "Green Revolution" whereby it was possible to create new genetically improved organisms such as crop varieties, chemical fertilizers,

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antibiotics (for livestock production) and agricultural activity offered high returns in production. Food prices decreased in many developing countries mainly in Asia, poor population got rid of poverty (IF-PRI, 2002). Despite these contributions, Green Revolution has been criticized by its negative impacts on nature and biodiversity, the inappropriate use of artificial fertilizers and mechanic production system to increase yield. The content of the food product was also under debate because of the use of synthetized inputs in industrialized agricultural production. In this context, organic movement appeared as a healthy alternative or a protest to the negative impacts of the Green Revolution. From another perspective, it is necessary to ask whether the Green Revolution is the only solution to feed the world.

Organic agriculture corresponds to the principles of Good Agriculture Practices (GAP) and sustainability. FAO underlines the term of "Good Farming Activities" (GFA) as a wider term to define sustainable agricultural, post harvesting production processes aiming at food safety and quality, eco-friendly environment and healthy food (FAO, 2004). These processes are *universal* in the sense that they fit cycles and ecological balances in nature and they are *local* in the sense that they should be designed to respect local conditions, ecology, culture and scale. For instance, wild collected products have the same content with organic products. Consumers cannot observe the qualities inherent to organic products just like wild collected ones even after they purchase and consume these; organic products are *credence goods*. The organic authenticity is verified by the certification of the product. Wild organic products can be promoted as organic by default products in compliance with consumer trust issue, however other products without organic certification create a dual understanding of organic products.

#### DEVELOPMENT OF ORGANIC FOOD MARKET IN THE WORLD

This section presents an outlook on organic agriculture worldwide and in EU and US in terms of organic lands, livestock, aquaculture and beekeeping, food retail sales and policies. EU and US are chosen as specific subgroups since EU and US are the two most developed single markets in organic food sector worldwide.

#### **Organic Lands**

#### Worldwide Organic Lands

Organic agriculture has first started in Northern Europe and the United States and then spread to other countries. In 2016, 178 countries practiced organic agriculture and 87 of them had their national organic regulation. The total organic agricultural land was 57.8 million hectares compared to 11 million hectares in 1999. From 2015 to 2016 the increase in the share of total organic land in the world is 15% (a year); and from 2007 to 2016, it is 83.5% (ten years). Australia is the leading country with the largest organic land (27.1 million hectares) followed by Argentina (3.0 million hectares) and China (2.3 million hectares). Figures 1 and 2 show the detailed statistics on organic agricultural land in the world.

The share of organic land in total agricultural land is 1.4% worldwide, whilst Liechtenstein has the highest share with 37.7%. Among 178 countries practicing organic agriculture, only in 15, the share of organic agricultural land is higher than 10% where in 96 countries, it is less than 1%. Figure 3 and 4 demonstrate the growth of organic agricultural land and its share between 1999 and 2016. As shown, the share of organic agricultural lands has risen from 0.3% to 1.4% in 2016. Besides, Oceania has the

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