

### Food Security in the Euro-Mediterranean Area: Main Challenges

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This article focuses on the quantitative and qualitative aspects of food security in the Euro-Mediterranean area, analysing the main challenges and suggesting potential solutions and best practices.

Food security is a complex and multifaceted issue. It is interrelated with the growing demand for food, population growth, climate change, environmental degradation, food production, trade practices, water scarcity, desertification, resource distribution, consumption patterns and the financial and economic crisis.

According to the FAO, "food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food, that meets their dietary needs and food preferences for an active and healthy life." It is worth mentioning that the quantitative and qualitative aspects of food security are equally significant.

#### 1. Quantitative food security

Achieving availability of sufficient food for all should be at the core of policies aiming to effectively tackle the problem of poverty and hunger. Consequently, the effective eradication of poverty and hunger can only contribute to fostering peace, stability and prosperity in all areas of the world, not least in the Mediterranean region.

Current agricultural and trade policies are inappropriate as they place constraints on food access and availability. Thus, it is imperative to reform them in order to ensure equal access for all to food. In addition, agricultural production and the food industry should utilize new technologies to ensure the quality, safety and availability of food, as well as the sustainability of production, resources and the environment. The role of women in agricultural and household food security has been invisible. Therefore, it is of the utmost importance to recognize and enhance this crucial role. The views and perspectives of women should be taken into account in the formulation and implementation stages of food security policies and programmes. Moreover, programmes should be women-friendly and should take into account their specific needs. Gender mainstreaming in these policies is of crucial importance.

#### 2. Qualitative food security

This part focuses mainly on food quality and safety, healthy diets and the preservation of Mediterranean culture and health-promoting foods and eating patterns.

**2.1.** The Mediterranean Diet Pyramid is universally recognized as the lifelong health-promoting eating pattern. It is based on the dietary traditions of Crete, Greece and southern Italy, circa 1960. The dietary data collected from these parts of the Mediterranean region verifies that the aforementioned countries had the lowest recorded rates of chronic diseases and the highest adult life expectancy rates in the world, despite the fact that their medical services were limited.

The Mediterranean Diet followed mainly by “the poor Mediterranean people” consisted mainly of fruits and vegetables, beans and nuts, grains, fish, olive oil, small amounts of meat and dairy products and red wine. The modern diet of “prosperity” replaced the “diet of the poor” with the introduction of more meat and other animal products, fewer fresh fruits and vegetables and more processed convenience foods. These new dietary habits are blamed for the increased rates of heart disease, obesity, diabetes, and other chronic diseases among the Mediterranean people.

In 2008, during the 15th Anniversary Mediterranean Diet Conference, the Classic Mediterranean Diet Pyramid was reviewed and updated by the Scientific Advisory Board, with the introduction of the following key changes:

- (a) All plant foods – fruits, vegetables, grains, nuts, legumes, seeds, olives and olive oil – were combined in a single group and placed at the base of the pyramid. The change was meant to emphasize their key role in this eating pattern and to signal that these foods should be the basis of most meals.
- (b) The recommended consumption of fish and shellfish on the pyramid was increased to at least twice per week, “indicating their multiple contributions to brain and reproductive organ health.”
- (c) Herbs and spices were added for promoting health and for making food taste better, as well as for “preserving” the national identities of various Mediterranean cuisines.

In this context, I would like to highlight the need to “go back to our roots – our Mediterranean diet”, which will be mutually beneficial for our health and culture. Our effort to make our regional products more competitive should also be reinforced, in the same direction.

In order to achieve these goals, the modern consumers’ demands for convenient, “minimally processed”, fresh and healthy foods, including new products, should be satisfied. Moreover, consumers should be availed of complete information, assuring them that the recommended eating pattern is both nutritious and safe.

I would also like to stress that risk/benefit assessment is a valuable tool for the production of such information. It is a methodology that allows nutritional benefits from the consumption of foods, to be weighed against risks, associated with the presence of pollutants. Risk/benefit assessment can also be applied in comparing positive and negative health effects of macro and micro nutrients across intake levels, and weighing the benefits against the risks of toxicity.

Below, two fish consumption recommendations based on risk/benefit assessment are presented:

(a) The Scientific Advisory Committee on Nutrition and the Committee on Toxicity in the UK have worked together in order to weigh the nutritional benefits against possible risks from the consumption of fish, with particular reference to oily fish. The aim of this joint effort was to bring together the nutritional considerations on consumption and the toxicological considerations on the contaminants in fish: on the one hand, the evidence suggesting that increased oily fish consumption reduces the risk of cardiovascular disease and might be beneficial to fetal development; and, on the other, the potential detrimental effects on health, associated with the presence of contaminants in fish. An important consideration in this assessment for both the beneficial effects and the risks is quantity. According to this advice, the UK population should be encouraged to increase oily fish consumption to one portion a week, from the current levels of about a third of a portion a week. This would provide significant public health benefits without appreciable risk from the contaminants in fish.

(b) The Food and Drug Administration and the Environmental Protection Agency (USA), announced a revised joint consumer advisory on methylmercury in fish and shellfish for reducing the exposure to high levels of mercury in women who may become pregnant, pregnant women, nursing mothers, and young children. The FDA and EPA emphasize the benefits of eating fish. Consumers should know that fish and shellfish can be important parts of a healthy and balanced diet. They are good sources of high quality protein and other essential nutrients. However, as a matter of prudence, women might wish to modify the amount and type of fish they consume if they are planning to become pregnant; or are pregnant, nursing or feeding a young child. To this end, specific recommendations for selecting and eating fish or shellfish have been drafted. By following them, women will receive the benefits of eating fish and shellfish and be confident that they have reduced their exposure to the harmful effects of mercury.

**2.2.** Cooperation between experts and competent authorities of Euro-Mediterranean countries would be beneficial to all, not only for sharing experiences, good practices and information but also for developing effective food and food safety policies.

Some specific targets and priorities of this cooperation could be the following:

- Joint research in the region aiming to preserve and promote the traditional authentic Mediterranean foods and develop these products on an industrial scale by transforming the traditional “know-how” into “knowledge”.
- Joint research in exploring and improving the traditional Mediterranean food quality through innovative technology.
- Developing and making available food consumption recommendations, based on the Mediterranean diet and health benefits/safety considerations.

Production of a Euro-Mediterranean composition data base and estimation of nutritional quality of foodstuffs.

- Risk assessment of dietary exposure to contaminants, residues and additives, and application of proper corrective and or preventive measures.
- Establishment of regional microbiological criteria in foodstuffs.
- Applied research focused on the analysis and characterization of traditional foodstuffs – standardization and authenticity.
- Adaptation of advanced technologies in processing, preservation and food safety of products.

Addressing food security challenges should be considered a key priority for Euro-Mediterranean countries and they should join efforts in order to fully exploit the potentials provided by their cultures, traditions and eating patterns, as instruments for progress and economic growth.