Journal of Nutrition and Food Security
Shahid Sadoughi University of Medical Sciences
School of Public Health
Department of Nutrition
Nutrition & Food Security Research Center

eISSN: 2476-7425 pISSN: 2476-7417 JNFS 2018; 3(3): 113-115 Website: jnfs.ssu.ac.ir

Food Security and Economic Growth

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ARTICLE INFO

EDITORIAL ARTICLE

Article history:
Received: 28 Apri 2017
Revised: 26 May 2017
Accepted: 30 Aug 2017

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Keywords: *Pregnant women; Nutrition; Nutrition recommendation*

This study aimed to examine the relationship between food security, health and economic growth. These three components together form the vertices of a triangle. How much does food security strategies in a country bring more health to its people? Is the healthy population richer? What is the impact of health on income, and to what extent are income variation among countries characterized by variation in health? Does better nutritional status contribute to faster economic growth?

Food and Agriculture Organization (FAO) has defined food security as: when all people in any 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(Food and Agriculture Organization, 2008). At the household level, food security refers to the ability of the household to secure, either from its own production or through purchases, adequate food for meeting the dietary needs of all members of the household (Food and Agriculture Organization, 2008). Therefore, Food security has four interrelated elements: availability, access, utilization and stability (Dilley and Boudreau, 2001). Availability is about food supply and trade, not just quantity but also the quality and diversity of food. Access covers economic and physical access to food. Utilization is about how the body uses the various nutrients in food. Stability is about having food security at all times. Improving availability requires sustainable productive farming systems, well managed natural resources, and policies to enhance productivity. Improving access requires better market access for smallholders allowing them to generate more income from cash crops, livestock products and other enterprises (Dilley and Boudreau, 2001). To achieve food access and availability in low and high-income societies, a detailed distinction is

This paper should be cited as: Pourreza A, Geravandi S, Pakdaman M. ***Food Security and Economic growth.*** *Journal of Nutrition and Food Security (JNFS)*, 2018; 3 (3): 113-115.

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[DOR: 20.1001.1.24767417.2018.3.3.1.6]

made between technological and institutional aspects. In the case of low-income economies, the emphasis is placed on the socio-economic situation and performance of small-scale farmers while in high-income economies the focus is shifted towards issues of price volatility, market stability and food waste. In both cases, productivity and efficiency in the use of resources are also considered (Inrnational Food Policy Research Institute, 2010).

Food is a fundamental human right. Health is also valued in its own right. Furthermore, health is known as the measure of the body's efficiency and overall well-being. Health improvement can affect on utility, efficiency, productivity, income and ultimately affects on economic growth. Therefore, good health has a positive, sizable, and statistically significant effect on economic growth. Food security not only carries significant benefits for human health, but also serves as the basis to achieve sustained economic growth.

On the other hand, food insecurity is a household-level economic and social condition of limited or uncertain access to adequate food (Bindraban *et al.*, 2003). The United States Department of Agriculture (USDA) defines food insecurity as a state in which "consistent access to adequate food is limited by a lack of money and other resources at times during the year." Therefore, food insecurity offers an accepted method for measuring food deprivation (Sen, 1983). Hunger is an individual-level physiological condition that may result from food insecurity (Massett, 2010). One in nine people around the world (805 million) get hungry every day (Food and Agriculture Organization, 2008). They are at risk of mental impairment, poor health, low productivity and even death. Countries with very high levels of poverty and chronic malnutrition face limitations in human capital development, which is required to achieve sustainable growth. High rates of malnutrition can lead to a loss in gross domestic product (GDP) of as much as 4 to 5 percent (Food and Agriculture Organization *et al.*, 2015). The economic costs of micronutrient deficiencies are also considerable, reducing the GDP to 0.7-2% in most developing countries. Global losses in economic productivity due to macronutrient and micronutrient deficiencies reach more than 2-3% of the GDP (Klaus von *et al.*, 2014). The GDP growth generated by agriculture is up to four times more effective in reducing poverty than growth generated by other sectors (International Fund for Agricultural Development, 2012). . It has to be noted that women and men must be equal partners in improving global food security. If women had the same access to productive resources as men, they could increase yields in their fields by 20-30%. This alone would raise total agricultural output in developing countries to 2.5-4%, which could reduce the number of hungry people in the world to 12-17% or 100-150 million people (Food and Agriculture Organization *et al.*, 2015).

Better nutrition enhances economic growth. On the other hand economic growth also has a direct and positive impact on reducing hunger. It has proved that an increase of 10 percent in economic growth reduces chronic malnutrition to only 6 percent (Oxford Poverty & Human Development Initiative *et al.*, 2010, Stamoulis and Zezza, 2003). However, economic growth by itself will not resolve the problem of hunger and malnutrition. Morever economic growth can have negative effects, too. For example, a 10 percent increase in economic growth is correlated with an increase of 7 percent in obesity among women.

Some factors including population growth, changing tastes, climate change, water scarcity, troubled farmers have caused food security as a priority for all countries, whether developing or developed (Food and Agriculture Organization, 2008). The issue of food security is not just about food and feeding people but also about practically all aspects of an economy and society. Food insecurity traces to poverty. Poverty must be addressed by economic development. The challenge of food security is for economists to work with others regarding socioinstitutional changes essential for proven policies and practices to supply adequate diets. Implications of economic policy for food security is to provide the world

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growing population with a sustainable, secure supply of safe, nutritious, and affordable high-quality food, using less land with lower inputs and in the context of global climate change as well as other environmental changes and declining resources. Without a country-owned food security strategy, there will be a continued negative effect on human capital that results in negative consequences on government expenditures. This will lead to stagnated economic growth in the long term. Thus a proper food security strategy is an essential for all countries. It requires a combination of coordinated actions in various sectors including finance, agriculture, health and nutrition, infrastructure, and other sectors. Fighting against hunger and achieving food security is a universal goal which requires additional multi-sectoral policies aimed at reducing inequalities and targeting efficiency and productivity in the use of resources. Innovation programmes and policies which integrate institutional coordination and technical support have to put forward as strategic tools in the achievement of food security goals at regional and global levels.

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