

Functional Food Security, Why not Just, Food Security; A View Point

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Abstract

It is noteworthy that both WHO and FAO have also joined hands to educate the world about the utility and necessity of functional foods for prevention of cardiovascular diseases (CVDs) and other non-communicable diseases (NCDs) which is clear from 2017 websites of these agencies. In 2017, FAO was not aware about how much food available in the world. However, on November 9, 2018, there was news that 1.3 billion metric tonnes of food is available every year, which is enough to serve exiting total world population in a year. It seems, there is overemphasis on under nutrition which is more of political nature, mainly, due to poor distribution and lack of implementation of government policies, despite adequate availability of food in the world. It is suggested that FAO outlook should also include millets and new dairy products, in particular probiotics, and new omega-3 and tea flavonoid rich egg, which may become highly protective but inexpensive functional foods for the next decade. Functional food security, in particular increased production and consumption of millets can enhance the potential of food systems to become both more sustainable and more supportive of good nutritional outcomes. Further studies are needed to find out the impact of agricultural food-based interventions on nutritional and health outcomes.

Introduction

Several international groups, such as the Lancet Commission, the WHO, the International College of Cardiology and the International College of Nutrition have been eagerly planning conferences, and publications to attract the attention of Food and agriculture Organization (FAO) which has published recently, an Agricultural Outlook (1-3). The main purpose has been to persuade the FAO to educate the member countries of the world to produce functional foods to gain Functional Food Security, rather than Food Security. In 2017, FAO did not answer our query about how much food available in the world. However, on November 9, 2018, there is news that 1.3 billion tons of food is available every year which is enough to serve exiting total world population. Food Security without emphasis on Functional Foods is the

major cause of epidemic of cardio-metabolic diseases (CMDs) and other chronic diseases which is the important message the authors are giving in this view point [1,3]. The other aim is to emphasize that some of the functional foods like millets may be protective against these diseases as well as protect environmental degradation.

Functional food security is also emphasized in a recent volume by Elsevier "Role of Functional Food Security in Global Health" (3). It is noteworthy that both WHO and FAO have also joined hands to educate the world about the utility and necessity of functional foods for prevention of CVDs and other non-communicable diseases (NCDs) which is clear from 2018 websites of these agencies (4,5). The emphasis on the need for functional food production, labeling of nutrient contents and the need for food biodiversity in the diet are interesting. However, there is overemphasis on under nutrition which is more of political nature, mainly, due to poor distribution and lack of implementation of government policies, despite adequate availability of food in the world. We agree that optimal nutrition is fundamental to human health and total health; social, physical, mental and spiritual health and well being, which can be easily resolved by increased production of functional foods like millets and other flavonoid rich foods (6-12). Millets are rich sources of proteins, fiber, flavonoids, calcium and iron which appears to be a perfect supplement, because it can grow in barren land without adequate water supply solving the problem of environment degradation (6-10). Millets may be protective against obesity, metabolic syndrome, CVDs and diabetes as well as against undernutrition and related diseases.

Conclusion

It is surprising from the UN-FAO estimates that about 805 million people which is more than a tenth of the global population, remain chronically undernourished. Despite all the efforts from UN-FAO, only slow progress has been made in the reduction of under nutrition, the world now also faces growing epidemics of overweight, obesity, and diet-related non-communicable diseases (NCDs) (3-5). It should be noted that decline in under nutrition and the emergence of the epidemic of NCDs are natural transitions occurring during poverty to affluence which can be prevented by emphasizing on functional food security, not just food

Extended Abstract

security. In case, there is no such emphasis by the WHO and FAO, the governments and other stake holders (with inappropriate health education on foods), are likely to make such policies supporting increased production of white bread, biscuits, cakes etc to achieve food security. Therefore, all the agencies should interact with honorable FAO and International College of Nutrition, to educate the worldwide food industry and governments for increased production of functional foods. Such efforts have not been made to buy or produce in middle income countries, resulting in to an epidemic of obesity and which needs to be done in all of Africa to prevent obesity. Functional Food Security appears to be adequate to address all the challenges of global malnutrition, including under nutrition and micronutrient deficiencies, as well as overweight, obesity, and diet-related NCDs (3-6). More specific targets covering all of these issues are needed to galvanize funders, countries, and others to address these fundamental challenges. The sustainable development agenda should include the right to adequate nutrition which should be fully integrated for example, sustainability has to be well enough defined to make such integration meaningful world-widely. It is interesting that the joint OECD-FAO Agricultural Outlook provides market projections for major agricultural commodities, biofuels and fish (2). It is suggested that this outlook should also include millets and new dairy products, in particular probiotics, and new omega-3 and tea flavonoid rich egg, which may become highly protective but inexpensive functional foods for the next decade (2-10).

Irrigation facilities available to farmers and such lands available to builders have been exploited to maximum by using agricultural land for agriculture and housing, respectively. There is a need to focus on dry lands to further increase grain production and use such lands for housing and industry. Because, the world is facing agrarian as well as nutritional challenges in lower income countries as well as in lower and upper middle income countries. In view of the low fertility of dry lands, utilization of such lands is challenging because its very difficult to produce sufficient quality grains in such lands.

In brief, FAO of the UNO emphasizes the persistence of undernutrition and micronutrient deficiencies and the emergence of overweight and obesity as well as CVDs in many parts of the world. Multiple forms of malnutrition can coexist within the same country, household and individual. Functional food security, in particular increased production and consumption of millets, soy products, fish can enhance the potential of food systems to become both

more sustainable and more supportive of good nutritional outcomes. It can also advance the need for a multi-sectoral approach that includes agriculture and food systems, health, sanitation, social protection, employment, education with better economic security. There is a need to collaborate all relevant stakeholders; health care professionals, food and Agricultural scientists to make a concerted effort to close the gaps that remain regarding basic data on diets and on nutritional status and development of health or prevention of diseases. Further studies are needed to conduct to find out the impact of agricultural food-based interventions on nutritional and health outcomes. Encouragement of management practices and technologies to improve sustainability and nutrition and evaluation of the impacts of markets, trade and market structure on environmental sustainability and human nutrition are quite important. Finally, recognition of the roles of consumer choice in the world television advertisements by the food industry, in achieving nutritional and sustainability objectives are fundamental for universal health and sustainable human development.