FOOD SECURITY CHALLENGES – GLOBAL AND NATIONAL PERSPECTIVES

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ABSTRACT

Concern about future food security has recently become a common topic of discussion and debate in the current scenario. Food security is a multi-dimensional concept and extends beyond the production availability, and demand for food. The major reasons for food security crisis are crop diversification, biofuel and medicinal plant cultivation, climate change and reduction in the availability of water supply for crop growth and cultivation. There is an urgent need to address the food security concerns that are central to economic and sustainable development issues in both India and the other nations which is possible by integrating bio-physical and socio-economic aspects of food systems. Hence this review was done to focus on the challenges in food availability, food security and food supply in a national as well as global perspective.

Keywords: Agriculture, Food Security, Bio-Fuel.

I INTRODUCTION

Food security emerges when people at all times have physical and economic access to adequate, safe and nutritious food to meet their dietary needs and food preferences for an energetic and healthy life, according to the Food and Agricultural Organization (FAO). Food security has three important and closely related components, which are availability of food, access to food, and absorption of food. Therefore, food security is a multi-dimensional concept and extends beyond the production availability, and demand for food. There has been a definite and significant paradigm shift in the concept of food security from mere macro level availability and stability to micro level household food insecurity, and also from an assessment of energy intake to measures and indicators of malnutrition [1]. The performance in the agriculture sector is extremely necessary for ensuring required availability of food. The more recent status of the agriculture sector and the factors primarily responsible for the disturbing slowdown in this sector provide a clear explanation for the notable decline in the growth of food production. Globally, if we consider, food security will remain a worldwide concern for the next 50 years and beyond. There has been no significant jump in crop yield in many areas stressing the need for higher investments in research and infrastructure, as well as addressing the issue of water scarcity.
The major reasons for food security crisis are crop diversification, biofuel and medicinal plant cultivation, climate change and reduction in the availability of water supply for crop growth and cultivation [2]. The cultivation of field crops mainly sugarcane for ethanol production is certainly considered to be a big challenge for the world food security. Another example is the temporal and spatial variations in precipitation including rainfall which may result in drought or flood. Similarly, extreme high or low temperatures result in variations in the length of crop growing season. These factors would also affect the crop productivity and farm net income and hence climate resilient agricultural practices have to be promoted. This is applicable to all the nations, including India. It was reported that the increasing human population coupled with their changing food preferences significantly increased the global demand for food and thereby generating tremendous pressure on native vegetation and ecosystems. Moreover, due to high demand of food and in turn the tightening supply of it, freshwater is expected to emerge as a key constraint to future agricultural growth and food security. Globally, the demand for water has grown annually by 2.4%. About 20% of the globally cultivated area is irrigated, utilizing an estimated 70% of the global water use and accounts for nearly 40% of the total food production.

Based on these concerned food security issues, the need of the hour is to prioritize the preferential crops that suit well under each agro-climatic region of the country so that higher net returns can be achieved by the farming community through crop diversification [3]. The options for combining crop component with animal component such as integrated rice-fish farming may be explored which would result in additional net returns to the farmers without affecting the food security. In several instances, it was noted that the traditionally productive regions for cultivation of food crops like rice and wheat were converted to medicinal and bio-fuel crops, which is really alarming in the context of food security [4,5]. Hence, there is a strong necessity of regulating the amount of land area and nature of land that can be diversified for this purpose [6,7]. There is an urgent need to address the food security concerns that are central to economic and sustainable development issues in both India and the other nations which is possible by integrating bio-physical and socio-economic aspects of food systems. Efforts must be made to strike an optimum balance between the demand and supply of water resources for ensuring food security in India. Hence to ensure food security the above mentioned parameters and prospective should be highlighted globally and nationally.

REFERENCES


