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"Global food security and food safety:
The role of universities"

Analysis of Ecological Food Footprint for Kermanshah, Iran

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Abstract

As ecological footprints provide an easily communicable way of measuring the ecological bottom-line condition for sustainability, calculating the food footprint is a useful tool for promoting a sustainable future. It is particularly helpful for cities, where the battle for sustainability will be won or lost. Therefore, this study was conducted with the aim of calculating the food footprint based on agricultural production and consumption in Kermanshah, Iran. The results showed that total amount of food footprint was 0.54 hectares per person. Meanwhile, the highest footprint was among the food items associated with bread and protein substances, which accounted for about 50 % of the total food footprint. Considering per capita consumption of different food groups, bread (0.14 ha per person) and proteins (0.14 ha per person) received the highest area of land for the needs. Bread footprint is equal to protein products footprint due to its high levels of consumption in most diets in this province. About the area of farmlands in the city and synchronise them based on global hectares, Kermanshah's biological capacity is equivalent to 989,000 hectares worldwide. The result of these calculations showed that regarding food footprint and natural size of the city, there is no shortage of food regarding food production and also food security is affected by these factors. Of course, it is worth noting considering all the ecological footprints; there may be an ecological shortage in the city. The main reason is the high urban population compared with the area of the agricultural land of this city.

Keywords: Biological Capacity, Ecological Shortage, Food Footprint, food Security

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