



Expected increase in staple crop imports in water-scarce countries in 2050

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Water scarcity is a major challenge in the coming decades. The increasing population and the changing pattern of water availability that results from global warming reduce the potential of sufficient food production in many countries over the world. Today, two thirds of the global population are already living under conditions of severe water scarcity at least one month of the year. This rises the importance of addressing the present and future relationship between water availability and food import in water-scarce countries. The net import of staple crops (barley, cassava, maize, millet and products, oats, potatoes, rice, rye, sorghum, soybeans, sweet potatoes, wheat and yams) is analysed in relation to water availability per capita for the period 1961-2010, considering five decadal averages. The relation found is used together with the low, medium and high population growth scenarios from the United Nations to project the staple crops import in water-scarce countries for the year 2050. Additionally, we investigate the uncertainties related to the three population scenarios. Results will help countries to better understand the impact of population growth and limited water resources on their future food trade. This study will provide a valuable supporting tool for policy makers towards more sustainable and water-efficient food production as targeted with the Sustainable Development Goals.

Keywords: Water Availability, Food Import, Staple Crops, Water Scarcity, Water-Use Efficiency, Sustainable Development Goals.