Abstract

Food security in maintaining human health on the one hand and the relatively high water demand of goods and And their role in exacerbating the global problem of water crisis on the other hand The need to review the current cropping pattern for crops and modify it according to appropriate standards makes clear. Optimal allocation of water resources is a key approach to development. The virtual water concept to estimate the actual amount of water products and goods, As a suitable solution suggested by many experts. Virtual water, the amount of water that a commodity or product in the production process From the beginning to the end consumer, and The multi-objective programming model for optimal allocation of water resources will be used. The present study aims to maximize net profit of Agriculture, Minimize water consumption and maximize the benefits of green water in the city and the entire study area is desired. In this study, based on three criteria: the ratio of water demand to the volume of water available, Virtual water is the water and the water, Virtual water is blue and The value of water, assess the spatial variation of 32 cultivated crops he six cereals, vegetables, industrial crops, vegetables and potatoes In the years between 1389-1379 in the city of Abadan, Ahvaz, ize, Khoramshahr and shoshtar, Cultivation model for achieving economic and water security was offered both to conserve resources. Calculations using data provided to the agricultural calendar, Acreage, yield, irrigation and climate over a period of 11 years took place. According to the results, grain, industrial crops and fruits, respectively, with the average share of 62, 19 and 8%,respectively Most cultivation products. But despite the production of industrial plants, cereals with high virtual water consumption The only responsible for 11 percent of total production area. Remove this Groups of goods From the city of Ahvaz and Shoshtar And assign it to industrial plants The reduction of waste water, Income from agriculture will increase. The three objectives of the study, Ranked first to sixth for crops In the region belong to the vegetables, Industrial plants, potatoes, legumes, grains and fruits.

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