Mathematical methods to evaluate the impact on the agricultural field, determined by the agricultural crop-fields irrigation

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Climatic global changes expressed particularly by the gradual warming because of the rise of the multiannual monthly medium temperature determines in certain geographical areas the occurrence of the agricultural drought, aridity and even desertification of the agricultural fields. The respective case study refers to the impact of agricultural field irrigation usage on the environment when the water source used for irrigation is an accumulation of the water and, the chemical fertilizers administration is done at the some time with the watering. The mathematical method used to quantify the impact when irrigating the agricultural fields is known as Saaty matrix or Leopold matrix, after the two researchers who proposed and used it. The mathematical method of impact quantification allowed obtaining some exact percentage values with the view to the complex impact distribution and also to the impact levels upon the territory, determined by the fields' irrigation, fertilizers, herbicides, and pesticides.