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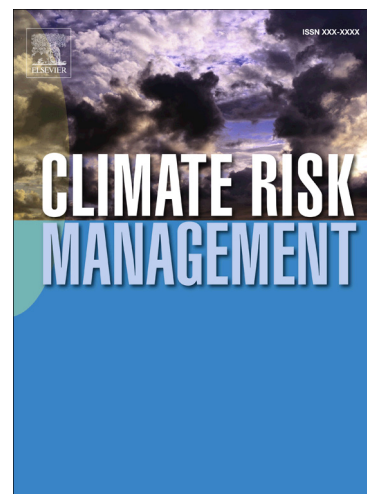
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## CLIMATE CHANGE IMPACTS AND ADAPTATION OPTIONS FOR THE GREEK AGRICULTURE IN 2021-2050: A MONETARY ASSESSMENT

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**Abstract:** The paper presents a quantitative assessment of mid-term (2021-2050) climate change impacts on and potential adaptation options for selected crops in Greece that are of importance in terms of their share in national agricultural production and gross value added. Central points in the assessment are the monetary evaluation of impacts and the cost-benefit analysis of adaptation options. To address local variability in current and future climate conditions, analysis is spatially disaggregated into geographical regions using as an input downscaled results from climatic models. For some crops (cereals, vegetables, pulses, grapevines), changes in future agricultural yields are assessed by means of agronomic simulation models, while for the rest crops changes are assessed through regression models. The expected effects on crop yields of a number of potential adaptation options are also investigated through the same models, and the costs and benefits of these options are also quantitatively assessed. The findings indicate that climate change may create winners and losers depending on their agricultural activity and location, while adaptation can mitigate adverse effects of climate change under cost-effective terms.

**Keywords:** climate change; agriculture; impacts; adaptation; economic assessment.

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