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Climate change and Large-Scale Land Acquisitions in Africa: Quantifying the future impact on acquired water resources

Davide Danilo Chiarelli, Kyle Frankel Davis, Maria Cristina Rulli, Paolo D'Odorico

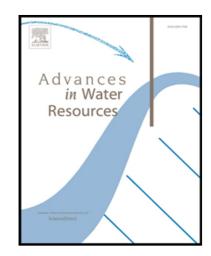
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#### ACCEPTED MANUSCRIPT

### **Highlights**

- Water appropriation associated with large-scale land acquisitions in Africa accounts for about 210 km<sup>3</sup> yr<sup>-1</sup> of blue and green water, assuming that all the acquired areas are actively used for agricultural production.
- The impact of climate change resulted in only small increases in overall green and blue crop water requirements in the targeted areas.
- With an increase in temperature and keeping constant the amount of carbon dioxide, yields are expected to drop by up to 20%, while when an increase in atmospheric CO<sub>2</sub> is accounted for crop yields increase by as much as 40%, thereby reducing the water footprint of crops.

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