

Estimates reduce amount of additional land available for biofuel production

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The availability of suitable land may limit production of biofuels in the years to come. Credit: Stockbyte/Thinkstock

Amid efforts to expand production of biofuels, scientists are reporting new estimates that downgrade the amount of additional land available for growing fuel crops by almost 80 percent. Their report appears in the ACS journal *Environmental Science & Technology*.

Steffen Fritz and colleagues explain that growing concern exists in the U.S. and the European Union on how production of biofuels will impact food security. This has led to a realization that increased production of biofuels must take place on so-called "marginal land," acreage not suitable for growing food crops, but capable of growing switch grass, Indian beech trees and Barbados nut trees. Concerned that previous estimates were targeting some areas where land is not marginal, the

scientists did the calculations using data obtained through crowdsourcing, which were based on higher-resolution datasets.

They concluded that previous studies had overestimated the amount of arable land, had underestimated the amount of land already being cultivated and had not fully considered other competing uses for land other than farming. The revised estimates show that 140 million-2.6 billion acres of additional land could be cultivated for biofuel production. That compares with previous estimates of 800 million-3.5 billion acres. This study highlights the large uncertainties in estimating land availability and points out that such estimates should be used with caution.

More information: Downgrading Recent Estimates of Land Available for Biofuel Production, *Environmental Science & Technology*.

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