

Reply to 'Organic farming and deforestation'

Reganold and Wachter reply — We appreciate Tayleur and Phalan¹ elaborating on the important challenge of habitat conversion facing agriculture. Indeed the relationship between agricultural expansion and habitat loss is complex², and we did not have space to delve into this complexity in our paper³. Moreover, the intent of our paper was not to critique organic certification programmes but to evaluate the 40 years of science examining the effects of organic and conventional farming on sustainability metrics.

We agree that land-use change is an important aspect of sustainability; unfortunately, minimal available data on this issue prevented us from including it in our discussion. We were similarly

limited in discussing other important sustainability metrics, particularly aspects of social wellbeing. This gives strength to the argument that studies need to be done that adequately assess agriculture's impacts on land-use change as well as other less-measured sustainability metrics⁴.

We do think that organic and other third-party certification programmes, and any government agricultural incentive programmes, should be linked to strong conservation measures preventing deforestation and other forms of habitat conversion. More sustainable farming systems — such as organic, integrated and agroforestry systems — could work well with active habitat-conservation mechanisms, including land-use zoning, financial

instruments and certification standards^{3,5}. With growing demands on farmland and increasing pressures on natural habitat, progress will depend on targeting research, implementing effective policies and enforcing the protection of wildlands. □

References

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3. Reganold, J. P. & Wachter, J. M. *Nature Plants* **2**, 15221 (2016).
4. Sachs, J. *et al. Nature* **466**, 558–560 (2010).
5. Phalan, B. *et al. Science* **351**, 450–451 (2016).

John P. Reganold* and Jonathan M. Wachter
Department of Crop and Soil Sciences,
Washington State University, Pullman,
Washington 99164, USA.

*e-mail: reganold@wsu.edu