



Big win: Trees on agricultural land sink four times more carbon

Recent studies show that carbon sequestered by trees on agricultural land is not well accounted for. If it was, researchers argue in a new study: “Global Tree Cover and Biomass Carbon on Agricultural Land: The contribution of agroforestry to global and national carbon budgets,” total carbon estimates from agricultural land could be more than four times higher.

Between 2000 and 2010, tree cover on agricultural land globally increased by 3 percent, resulting in a 4.6 percent increase in biomass carbon. Yet while the importance of carbon stored and sequestered by forests is widely recognized and land cover changes well monitored (see e.g. [Terra-i](#)), carbon stored by trees on agricultural land needs to be better measured.

The benefits of increasing tree cover on agricultural land go far beyond carbon sequestration. Trees increase soil organic matter and improve soil health, making farming systems more resilient to climate extremes. They also protect soils from erosion, safeguarding topsoil and farm productivity.

Because trees stay in the soil for many years, their biomass contributes to a build-up of carbon over the long-term, which can stabilize wider ecosystem health - especially important during a changing climate. Growing

more trees on farm land could be a fast and easy route to increasing carbon sequestration, above and below ground, with a myriad of other benefits.

Call to action:

- Increasing carbon in the landscape will entail landscape mapping and using site-specific data to guide decision makers about where to invest in certain management practices over others, including where agricultural land can support more trees.
- Further research is needed to identify drivers of land use change at regional, national, and sub-national scales, to develop policies that enhance carbon sequestration on agricultural land to benefit farmers and society as a whole.



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