

Interactive comment on “The economics of soil C sequestration” by D. Moran et al.

Anonymous Referee #2

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General comments:

This paper proposes a broad overview of the issues raised by the instruments aimed at enhancing carbon sequestration in soils as a GHG mitigation option. The topic is of interest to the readership of the journal. The paper presents interesting facts about carbon sequestration in a well-written and concise manner. Its main interest is to combine elements from soil sciences, agronomy, and economics.

My main concern is that it is very difficult to identify the scientific contribution of this paper. It does not propose any novel method, model, idea, or original data to address the issue. Rather, it mainly uses basic textbook concepts from environmental economics (externality, public good, cost-effectiveness, asymmetric information, transaction costs) to illustrate the difficulties associated with the design of incentives to farmers and land owners to adopt carbon-friendlier practices.

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As a review article, the paper fails to provide the reader with a comprehensive view of the state of the art in economics on the questions related to soil carbon sequestration. It is striking that very few references are made to results documented in peer-reviewed quantitative analyzes. Instead, the text makes extensive use of general assertions that are not backed by published results. When explicit references are made (e.g. using the French MACC curve, p 1086), the results are merely presented as illustrative ; they are not compared with other results in the literature, nor are they put in any kind of perspective.

Specific comments:

- The title is too vague—or too ambitious—and does not really reflect the content of the paper.
- "The existence of carbon markets creates a distinction between traded and non-traded sectors." (p. 1082, l19). This is not the existence of carbon markets per se that creates this distinction, but rather the fact that the coverage—in terms of both geography and sources—is only partial.
- "In practical terms these so-called transactions costs of including millions of small sources in any MBI could possibly outweigh the benefits." (p. 1083, l3-4). On what references is this assertion based?
- "Other commentators suggest that emissions reductions will simply lead to displacement abroad if they are associated with lower domestic output as a result." Who are these "commentators"?
- "The schemes are often based on payment for costs incurred and foregone revenues, with monitoring largely by observing input compliance rather than less visible outputs." (p. 1085, l 15-18). This is an important change with respect to what is written earlier in the paper, i.e. from emission-based to practice- or input-based instruments. This deserves a much longer discussion.

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- "Problems occur in that the costs of complying are potentially different between the supplying agents, and are in-observable to the buyer. This means that a uniform compensation rate would be inefficient." As in any second-best setting, the question is whether the extra efficiency losses imposed by asymmetric information are likely to offset the welfare gains permitted by the ex-post reduction in emissions or not. What does the literature say on this particular point?

Interactive comment on SOIL Discuss., 1, 1073, 2014.

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