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This comment was received via email by the VCS Association

Comments on the proposed new VCS methodology : “Methodology for Sustainable Grassland Management”:

The authors have submitted a well written methodology. However, there are two specific problems which need to be addressed:

1. Section 8.2.8, Option 1, Subsection “Project Estimate of SOC with Transitions”
This section suggests that as a default proponents could use the IPCC Tier 1 default of 20 years for the transition period. While this figure has some validity (albeit with a large range of potential error) at the national level, averaged over an enormous number of sites, at the project level it could lead to order of magnitude errors. There are examples in the literature where for specific transitions transition times in excess of 300 years have been estimated. This default option should be withdrawn. If the proponents do not have access to specific time series information on the transition in their area and ecosystem, they should be using option 2.
2. Section 8.2.8, Option 2, Measurement
Two issues arise in this section. First, as with the rest of this methodology, this section follows the recent practice of confining methodologies largely to laying out basic equations for calculating carbon pools and emissions. This practice works very well for industrial processes, where measurement is commonly part of the process, as well as for pools such as woody biomass, where a tradition of accounting level measurement going back well over 100 years exists. However, in soil carbon it is simply inadequate. While there is a strong history of scientific measurement of soils, there is a much weaker history of accounting quality measurement of soil carbon, which is not necessarily the same thing. Methodology developers always need to keep in mind that they are fundamentally writing accounting standards. Specifically, the methodology needs to lay out the equations and principles to be used to deal with the many changes which can occur in soils (compaction, decompaction, erosion, deposition etc.) which can lead to apparent changes in soil carbon content which are artefacts, and do not reflect real changes in atmospheric GHGs. To give a simple example, compaction can result in apparent increases in soil carbon when sampling to a fixed sample depth, despite the fact that no change in total soil carbon content has in fact occurred.

Secondly, the methodology suggests a 20 cm sampling depth. For some projects this may be adequate and correct. However, the sampling depth should always be determined on a project specific basis, and only after a thorough review of the soil process changes expected to occur as a result of the project, and the scientific literature on these changes. While these issues should be relatively straight forward for most grassland projects, they must be examined in detail.



Recent research has made it clear that soil carbon changes are complex, and may occur at different rates and even in different directions at different depths depending on the specific nature of the transitions.