

Towards a methodology for increased carbon sequestration in dead fuels through implementation of less severe fire regimes in savannas

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Summary

An approach to developing a methodology for carbon sequestration in dead fuels through the implementation of less severe fire regimes in savannas of northern Australia is described. The approach is intended to be complementary to the existing emissions abatement methodology. It accounts for carbon stock changes in above-ground fine and coarse fuels as a result of changing the frequency of fires and the proportion of early dry season fires.

Introduction

This chapter outlines an approach to develop a methodology for carbon sequestration under Australia's Carbon Farming Policy (CFP) framework. The proposed methodology would apply to projects aiming to increase the above-ground carbon stock through the implementation of less severe fire regimes across the tropical savannas in Australia that receive more than 1000 mm long-term average annual rainfall. It is intended to complement the 'Reduction of Greenhouse Gas Emissions through Early Dry Season Savanna Burning' carbon farming methodology (Commonwealth of Australia 2012). As such, it adopts the wording and procedures in that methodology where possible. Hereafter, that methodology will be referred to as the Savanna Burning Emissions Abatement Methodology. The main difference between this proposed methodology and the Savanna Burning Emissions Abatement Methodology is that this is a carbon sequestration methodology, not an emissions abatement methodology. Thus, in order to meet the permanency requirements of the CFP, the project fire regime resulting in the deemed sequestration would need to be maintained for 25 years. The annual carbon sequestration will be assumed to apply after 3 years of demonstrating that a new fire regime can be maintained. The amount of annual sequestration will be the difference between the stock at equilibrium with the baseline regime, and with the project regime divided by the time deemed to achieve that equilibrium and expressed as CO₂-equivalents (CO₂-e). The methodology applies to open forest and woodland savannas in high rainfall areas (>1000 mm).