



Figure 4-S1. Full carbon opportunity cost of animal agriculture.

We define the Emission and Land Carbon Opportunity Cost of animal agriculture as the total  $\text{CO}_2$  reduction necessary to lower the RF in 2100 from the level estimated for a business as usual (BAU) diet to the level estimated for a plant only diet (POD). For these calculations we fix the  $\text{CH}_4$  and  $\text{N}_2\text{O}$  levels in the RF calculation at those estimated for the BAU diet in 2100 and adjust  $\text{CO}_2$  levels to reach the target RF. We also calculate ELCOC for just bovid sourced foods and determine the emission reductions necessary to reach RF's of 2.6 and 1.9, often cited as targets for limiting warming to  $2.0^\circ\text{C}$  and  $1.5^\circ\text{C}$  respectively. (A) Shows the results for RF directly calculated from  $\text{CO}_2$ ,  $\text{CH}_4$  and  $\text{N}_2\text{O}$ , while (B) shows an RF adjusted for other gases using multivariate linear regression on MAGICC6 output downloaded from the SSP database.