**SUPPLEMENTARY MATERIAL**

**Table S1**. Comparison of additional Forest Legacy Program (FLP) area across FASOMGHG regions based on allocation strategy. “Share of Existing Program Area” allocates additional set-asides under the Private Forest Growth and Retention policy scenario proportional to existing FLP project area. “Share of Projected Deforestation” allocates additional area proportional to the magnitude of projected deforestation as estimated by FASOMGHG.

|  |  |  |
| --- | --- | --- |
| Region | Share of Existing Program Area | Share of Projected Deforestation |
| CB | 1% | 13% |
| GP | - | - |
| LS | 16% | 13% |
| NE | 48% | 20% |
| PNWE | - | 1% |
| PNWW | 3% | 2% |
| PSW | 4% | 2% |
| RM | 14% | 1% |
| SC | 6% | 26% |
| SE | 8% | 21% |

 

 

**Figure S1.** Comparison between Private Forest Growth and Retention scenario outcomes by Forest Legacy Program allocation approach. Panel a. (“Share of Existing Area”) shows GHG flux if additional area is allocated proportional to existing FLP program distribution. Panel b. (“Share of Projected Deforestation”) shows GHG flux if additional area is allocated proportional to the magnitude of projected deforestation as estimated by FASOMGHG.



**Figure S2.** National afforestation area across policy scenarios, 2010 to 2050.



**Figure S3.** National cropland pasture area across policy scenarios, 2010 to 2050.

 

**Figure S4.** National dry cropland area across policy scenarios, 2010 to 2050.

**Annuity Calculation for Table 2**

One particularly challenging aspect of evaluating changes in welfare or CO2 fluxes is that they vary over time making a simple comparison problematic. One method to take values that occur over time and bring them to a single value is to calculate the annual annuity value associated with the sum of discounted values over a time period. The values presented in Table 2 were generated by first calculating the present value, *V* using Equation A1 where *vt* is the value of either welfare or CO2 flux in time period *t*, *n* is the number of 5-year time period *t*s, and *i* is the discount rate of 4%.

$V=\sum\_{t=1}^{n}\left(\frac{v\_{t}}{\left(1+i\right)^{(t-1)}}\right)$ [A1]

After calculating the present value of all welfare or CO2 flux values, *V*, the annuity value that represents the annual equivalent *A* of that value for the *n* 5-year time periods using a discount rate of *i* is calculated using Equation A2.

$A=\frac{V\*i\*\left(1+i\right)^{5\*n}}{\left(\left(1+i\right)^{5\*n}-1\right)}$ [A2]

The annuity values, *A*, for welfare and CO2 flux presented in Table 2 use an *n* of three, 5-year time periods for the near-term (2010-2025) and an *n* of eight, 5-year time periods for the long-term (2010-2050).