





## **Ecosystem Services Unit**

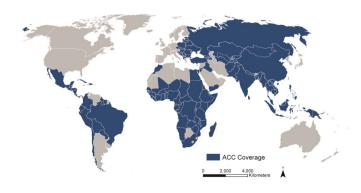
# **AFOLU Carbon Calculator**

## **Background**

Throughout the world, USAID sponsors land use/land management activities that have direct, significant and positive impacts on the climate. USAID's agriculture, forestry and other land use (AFOLU) programs help mitigate climate change through: (i) sequestering and/or (ii) reducing emissions of greenhouse gases (GHG) to the atmosphere.

In cooperation with the USAID Global Climate Change team, Winrock International has developed a set of simple, user-friendly, web-based calculation tools titled the 'Agriculture, Forestry and Other Land Uses (AFOLU) Carbon Calculator'. This Calculator is designed to give USAID Missions and implementing partners an easy way to comply with USAID's policy of mainstreaming carbon dioxide (CO<sub>2</sub>) reporting as an Agency-wide indicator (indicator 4.8-7).

The AFOLU Carbon Calculator uses sound and transparent science to produce yearly estimates of avoided and/or sequestered GHG emissions, reported in tons of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e). It also projects these benefits forward through time to assist in setting targets and help planning activities. The Calculator is not designed to provide the level of accuracy needed for carbon financing, but may provide an early indication of areas which have potential for such financing.



## Scope

The AFOLU Carbon Calculator estimates CO<sub>2</sub> impacts from the following activity types:

**Forest Protection.** Activities that protect and conserve native forests against pressure from forest clearing, fire and/or illegal logging.

**Forest Management.** Activities including reduced impact logging, stopping logging, and extending rotation length in productive forests.

**Afforestation/Reforestation.** Activities that plant native and/or exotic trees on non-forested land.

**Agroforestry.** Activities that aggregate planting and management of trees within agricultural systems.

**Cropland management.** Activities including management of fertilization input, reduction of tillage, and rice flooding regimes.

**Grazing management.** Activities including improved management of grasslands, fertilizer input, and rewetting or organic soils.

**Forest degradation by fuelwood:** Activities that introduce improved cookstoves, affecting the quantity of fuelwood and charcoal consumed for cooking.

Register and login at: http://www.afolucarbon.org/



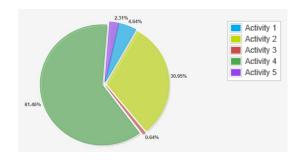
## **Using the Calculator**

Data requirements for using the AFOLU Carbon Calculator are minimal as CO<sub>2</sub> impacts can be estimated using built-in default data. Generally, the only required inputs are the area of the project activity, its geographic location, and an estimate of the activity's effectiveness in generating emissions reductions and/or removals. However, if local, more refined project-specific data are available, users may override default data.

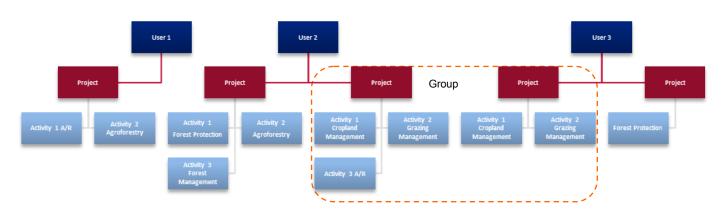
To use the AFOLU Carbon Calculator, users must create **projects** and add **activities** to the projects. CO<sub>2</sub> impacts are estimated per activity, and then aggregated at the project level. Users can also choose to share projects with other users through the **groups** feature.

## Calculating Results & Reporting

The AFOLU Carbon Calculator estimates short and long-term  $\mathrm{CO}_2$  benefits in both tabular and graphical formats. Downloadable, printable project reports can be generated as a PDF report, and users can submit results directly to USAID through the AFOLU Carbon Calculator website.



#### Organization of users, projects, activities, and groups



It is important to note that while the AFOLU Carbon Calculator provides a sound estimate of the carbon impacts using transparent science, it does not provide an appraisal of the marketable carbon offsets that could be generated. The AFOLU Carbon Calculator may provide an indication of areas that have potential for REDD+ financing, but it is not meant to provide the level of accuracy needed for carbon financing mechanisms.

### For more information, please contact:

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#### Disclaimer:

If you notice any errors in the default values, carbon benefit estimates and/or functioning of the calculator, please send your comments to: carbonservices@winrock.org.

Winrock International is a nonprofit organization that works with people in the United States and around the world to empower the disadvantaged, increase economic opportunity, and sustain natural resources.

