Greenhouse Gas Calculator

Summary of Development and Build

Created: September 2019

Reviewed: July 2020; April 2021

Second Harvest partnered with Value Chain Management International (VCMI) to create an excel calculation model for estimating GHG avoidance achieved by accepting and redistributing donated surplus foods.

Second Harvest identified fifteen food and beverage categories characteristic of donated food, along with the % of each sub-type received over the past 12 months, i.e., Category = Dairy, Sub-Categories – % milk, % cheese … etc.

VCMI determined the most appropriate representative GHG data available from sources/studies conducted in Germany, Canada and the UK, and established whether actual, median or proxy GHG data are applied to each of the food sub-categories.

Then based on Second Harvest suggested starting proportions of food sub-categories, final GHG multipliers for each category was rolled up to a GHG number at the category level.

Proportion numbers for any food or beverage subcategory can be updated as needed.

The values in the calculator used by Second Harvest to determine GHGs averted from entering the atmosphere are an estimation of the carbon footprint of the foods rescued and redistributed.

A carbon footprint is an estimated measure of the emissions of greenhouse gases from each phase of a product's entire life-cycle – from agriculture, through processing and packaging, distribution, retailing, use and disposal.