

Forward Food Greenhouse Gas Assessment Of Menu Changes

The assessment provides analytic outputs of changes to food purchase and identifies opportunities for further improvements; or where changes are yet to be made, the assessment is used as a planning tool to identify and evaluate potential changes to food purchase and their impact on greenhouse gas emissions.

a) Data requirements

Food purchase data for a representative time period before any menu changes were implemented

The time period could be related to menu cycles, semesters/terms, or any other factor that influences food purchasing, such as seasonality/availability. For example, for menu changes implemented in July 2017, the baseline data would need to be for a time period before this such as July 2016 – June 2017. If food purchasing remains relatively constant throughout the year, then the baseline could be a shorter time period. This will also depend on data availability and whether the data is already in electronic format or would need to be inputted from paper invoices. If the latter, then a shorter baseline period would likely be more appropriate. Also consider recruiting students to help with data collection.

As Forward Food focuses on reducing the purchase of animal products, the environmental assessment will cover the following food groups:

- Meat and their alternatives (e.g., beans, mushrooms, meat analogs)
- Fish and their alternatives
- Dairy (including milk and cheese) and their alternatives (e.g., soy milk/cheese)
- Eggs and their alternatives

The type of purchase data required is shown in this example:

Food item	State	Total weight (kg/lbs)	Grass-fed/free range (Y/N)
BEEF STEAK (BONELESS)	RAW	10 kg	N
CHICKEN FILLET (BONELESS)	COOKED	20 lb	N
DAIRY MILK (SEMI SKIM)	PASTURISED	5 kg	N
WHOLE EGGS	RAW	5 kg	Y
BLACK BEANS	RAW	5 kg	
CHICKPEAS (CANNED)	COOKED	2.5 kg (DRAINED WEIGHT)	

This data will also be required for the same time period after menu changes are implemented. For example, if the baseline time period is July 2016 – June 2017, and menus were changed around/during July 2017 then the next period of measurement would be July 2017 – June 2018. The baseline data can be revised at a later date if unforeseen changes to food purchasing are made, for example, mushrooms are used as a meat replacement but were not included in the baseline data. Also, if ingredients not currently purchased (and therefore not included in the baseline data), are used to replace an animal product/s, they should be included in the next period of measurement.

Note that data on monetary spend and supplier information is NOT required. We will ask institutes if and how spending on food purchase has changed over the study period, but we do not need to analyse or have access to that data.

b) Data processing

The first stage of analysis is to establish a baseline i.e. current greenhouse gas emissions, before menu changes were implemented. Published food Life Cycle Assessment data will be applied to calculate the greenhouse gas emissions resulting from the baseline data i.e. from the food purchase reported for the baseline time period. This process will be repeated when the next round of data is received i.e. post menu changes, and any changes in greenhouse gas emissions will be identified.

c) Outputs

The report will contain the following standard outputs:

- Headline summary of results
- Greenhouse gas emissions by food type and percentage contribution to total emissions
- Percentage change in emissions from baseline to current food purchase
- Greenhouse gas savings from various meat replacement scenarios
- Identification of greenhouse gas 'hotspots' within the purchase data
- Identification of 'low hanging fruit' options to reduce greenhouse gas emissions
- Data sources and greenhouse gas emissions factors applied

For a smaller group of foods, an assessment of land use could be conducted and any changes can be identified when the next round of data is received. A small number of comparisons regarding water use can be made, and related to other common uses of water such as showering, to provide context.

d) Participant involvement

- A short call with HSI before collecting baseline data to help establish baseline period, answer any questions and assess institutes needs in terms of data outputs.
- Be available to answer questions from HSI regarding food purchase data (not always required but sometimes clarification is needed on certain items before data can be processed).
- A short call or email before the follow-on purchase data is collected, to identify any new ingredients, reiterate the process and answer any questions.
- A call after data analysis of the follow-on purchase data, to assess institutes needs in relation to results/data output types and formats.
- HSI will be available to answer queries during the entire process.