CO Toolkit

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Overview

- Purpose: Create an easy-to-use tool for travelers to calculate the carbon impact of their vacations, encouraging more sustainable travel amongst AAA Members
- By comparing travel options, families can reduce emissions by 800kg, or nearly 5% of the average American's annual carbon footprint
- An interactive map tool can assist travelers in finding eco-friendly restaurants, locally sourced foods, and water bottle refill stations
- Power given to consumer to reduce their personal carbon footprints

3 REASONS YOUR RESTAURANT SHOULD GO GREEN

HEALTHY CUSTOMER RELATIONS
locally-sourced food

HEALTHY BUDGET
eco-friendly equipment

HEALTHY PLANET
conserve water & energy

Background

The AAA Auto Club Group is an organization providing resources for roadside assistance, tourism, insurance, and many other automotive-related industries.

-Provides eco-friendly hotel accommodations and travel options to members, like cruise ship lines running on natural gas and hybrid or electric car rentals.

The Carbon Reduction Challenge encourages students to take real action in the fight against climate change.

- Georgia Tech sustainability

-Empowers students to work with large organizations, like AAA Travel, in order to create lasting change in a business that reduces their carbon footprint.

Motivations

- AAA Auto Club Group's motivation was to develop a tool for travelers to compare traditional forms of travel with sustainable alternatives.

-Kaitlin's motivation to be apart of this project was to get more connections with like minded individuals who have a passion for the environment. Also to gain more knowledge on how to combat climate change.

-Ryan's motivation to work on this project was to find a new perspective on sustainability, from a business standpoint rather than a STEM standpoint. Additionally to learn more about how I can personally reduce my emissions while traveling.

Background and Motivation

Carbon Reductions and Cost Savings

Hypothetical Scenario: Family of 4 Traveling from Atlanta to Charleston

Method of Transport	Short-Haul Flight	Gas-Running Car	Electric Car
Emissions per mile	410 g CO2	309 g CO2	85 g CO2
Distance	267 mi	305 mi	305 mi
# of Tickets	4 passengers	1 car	1 car
Round Trip (x2)	2 trips	2 trips	2 trips
Total Emissions	875kg CO2	188kg CO2	52kg CO2
Cost	$1,200	$40	$20 (+700 with rental fees)

The Carbon Cost of Transportation

What's the lowest-carbon method of transportation? Here's the carbon footprint of travel for different vehicles, measured in grams of carbon dioxide equivalents per passenger-kilometer.
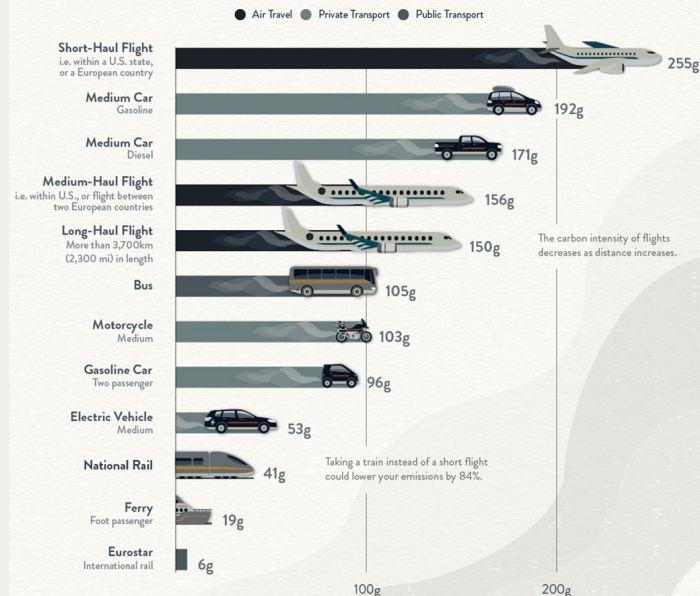
By switching from a short haul flight to an electric car, a family of 4 can reduce their total emissions by over 800kg, and save over $1,000.

Sustainable travel can have many advantages:

-Potential cost savings (Ex: skipping the fees associated with checking luggage at an airport)

-Choosing more sustainable alternatives like trains will lessen anxiety from being in the air and stress of waiting in lengthy security lines

-Health benefits due to eating sustainably while traveling (Ex: reducing red meat intake and avoiding processed food will help decrease the risk of heart disease and other health issues)

-Increased social health from shopping locally (Ex; gives tourists a higher opportunity for connecting with locals, further immersing them in the environment of their travel destination)

 -Peace of mind (Ex: supporting local businesses and not harming the local environment)

Support LOCAL Businesses

Co-benefits

Next Steps

- Hire App Developer/Add to existing AAA Application
- Implement transportation emissions and cost calculator
  - Can be easily calculated, good starting point for app development
- Develop hotel, cruise, and car rental price comparison tool
  - Hard to quantify emissions based on hotel, but can compare prices between sustainable and unsustainable businesses
  - Can be easily paired with ACG sustainable preferred suppliers, like Hertz Car Rental and Hilton Hotels
- Interactive map with refill stations, restaurants, and locally sourced foods developed later
  - Requires more intensive research
  - Start as a pilot program in select destinations