

Presentation:

Climate Change

I chose this topic because by figuring out what pollution does to the environment we can do our best to reduce it by trying natural resources that reduce pollution to help preserve the environment to maintain a healthy agriculture and ecosystem so that we are able to coexist with nature healthy.

Summary of finding:

1. Carbon Accounting & Emissions Tracking Software:

These platforms help companies measure, track, and report their carbon footprints (Scopes 1, 2, and 3 emissions).

What I discovered is you can't control or promise to stop pollution or carbon output. But you can see the data and try new ways to reduce it by having people engage in events that give incentives for participating or just by using solar, natural fuel resources to de escalate the use of fuels that are harsh to the environment. By recycling and doing our part as a society we can at least reduce the output of pollution and using data that lets us see the carbon output can let us know where to start by locating the areas that show where it is effected the most. By using less fuels that pollute we can reduce pollution and learn differnt ways of creating fuels can help.

Real world applications

So by using natural resources and recycling we can help the environment . The carbon accounting and emissions software, These tools improve transparency and help businesses identify areas to reduce emissions. While they don't reduce emissions directly, they support decision-making that can lead to emission reductions.

Describe Your design approach

1. Identifying the Central Challenge

At the heart of this project was the need to address a common issue: many people want to help the environment but feel their efforts are insignificant. Most climate-related apps target individuals but fail to highlight how personal actions contribute to a bigger impact. This concept was created to bridge that gap—by building a system that not only tracks individual efforts but also connects those efforts to community-wide progress, making sustainable behavior feel more meaningful and collaborative.

2. Designing with the User in Focus

We built our vision around real human behavior. Before defining features, we asked questions like:

- What pushes someone to make greener choices?
- How can we simplify the transition to sustainable habits?
- What makes progress tracking both effective and enjoyable?

These questions guided the development of features such as customized goal tracking, neighborhood-based challenges, and interactive elements that reward continued engagement.

Solution Design Proposal

Proposed Design Plan

To bridge the gap between people and meaningful environmental action, the *EcoSync* platform integrates individual responsibility, group collaboration, and motivational incentives. The following outlines the key components that shape the app's structure and user experience

1. Individual Carbon Impact Tracker

- **Goal:** To give users a clear picture of how their daily routines affect the environment.
- **How it works:** Users can either manually enter their habits—like how they travel, what they eat, and how much energy they use—or connect compatible smart devices to automatically monitor their carbon output.
- **Why it matters:** This creates a starting point for change and boosts personal awareness of one's carbon footprint.

Solution Design Proposal

2. Custom Weekly Climate Goals

- **Goal:** To maintain engagement by offering small, manageable tasks that promote eco-conscious behavior.
- **How it works:** Based on each user's behavior history, the app recommends weekly actions—like taking public transit, cutting down on energy usage, or reducing plastic consumption.
- **Why it matters:** Helps users build green habits gradually, increasing the chances of lasting change.

3. Group Climate Challenges

- **Goal:** To encourage community involvement and shared environmental responsibility.
- **How it works:** Users join local teams (such as neighborhoods, schools, or workplaces) and collaborate to meet sustainability targets. Challenges could include lowering total group emissions or completing a certain number of green actions.
- **Why it matters:** Promotes teamwork and increases motivation by showing users they're not acting alone.

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4. Live Environmental Progress Display

- **Goal:** To visualize progress and keep users motivated.
- **How it works:** The app presents updated statistics—like how much CO₂ has been reduced, how many trees have been preserved, or how many sustainable actions have been completed. Users can view these metrics through graphs, maps, and progress bars.
- **Why it matters:** Seeing real-time results helps users feel their actions are making a difference.

5. Climate Learning Center

- **Goal:** To educate users and empower them with practical tools for sustainable living.
- **How it works:** Offers bite-sized lessons, how-to guides, short videos, and quizzes on eco-friendly practices. It also highlights local events, incentive programs, and rebates that support greener lifestyles.
- **Why it matters:** Builds confidence and encourages informed decision-making.

Solution Design Proposal

6. Motivation Through Rewards

- **Goal:** To keep users returning and staying involved long term.
- **How it works:** Users receive eco-points for completing tasks and meeting goals. These points can be traded for real-world perks like store discounts, transit passes, or donations to environmental causes.
- **Why it matters:** Provides a tangible payoff for consistent climate action, turning good habits into lasting routines



Open Questions:

1. What surprised you?

One thing I didn't expect was realizing how much of a role our day-to-day habits play in the bigger picture of climate change. I always assumed that the biggest problems came from factories or governments, not really from individuals like me. But learning that small things—like driving less, unplugging electronics, or even changing what I eat—can actually add up and help the planet was eye-opening. It made me see that I'm not powerless and that even small choices can matter more than I thought.

2. What would you want to know more about?

I'm really curious to explore how technology is being used to help solve climate issues. Things like renewable energy systems, smart apps, or even how climate forecasts are made using satellites—I'd like to understand how those work in real life. I'd also be interested in learning what kinds of policies are actually making a difference and what regular people can do to be part of bigger environmental changes beyond just personal habits.

Citations:

[Science.nasa.gov](https://science.nasa.gov),

Northern Woodlands, **Climate Change Impacts on
Northeastern Forests.** by Alexandra Kosiba © 2024

H is for hope: **Climate change** from a to z.

by Kolbert, Elizabeth

2024

Climate change in popular culture: a warming world in the American imagination
by Holte, James Craig

Gale eBooks., 2022, First edition.

GitHub Link

<https://github.com/pacosta6/Final-Project-CIS129.git>