

Carbon Tracking UI

Research by:

Jackie Tran, Samantha Fishburn, & Julia Cagnina

Agenda:

Analysis on Current Carbon Tracking's UI



How to Improve Tanbii's Carbon Tracking



Green Gameplay Ideas



New Carbon Tracking Designs

Current Carbon Tracking's UI, User Flow, & Mechanics What is Good?





1. Earn Tanbii Tokens

- Adventure Sync
- Easy to use
- Inclusive
- Variety



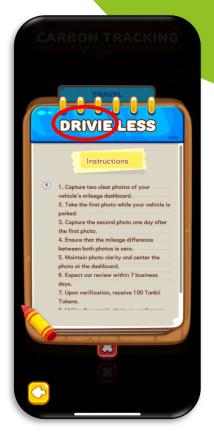


- 1. Walking & Cycling copy needs alignment adjustments.
 - Illustrations also have inconsistent spacing on left and right margins.









3. UI Design Gets Blocked & Has Typos





4. Instructions and Why tabs are informative but not as visually appealing, adding illustrations could be beneficial.





5. Design Styles not cohesive throughout menus







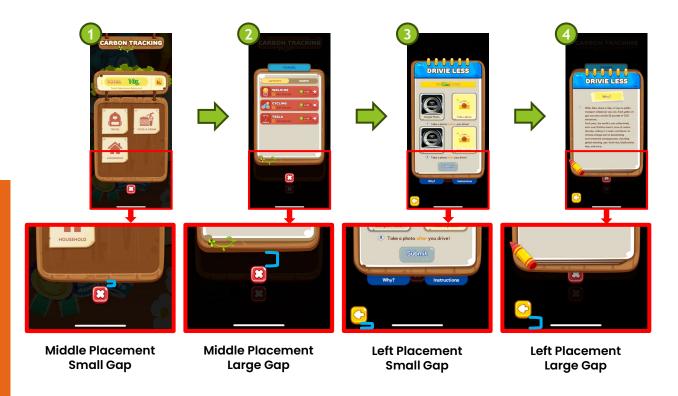


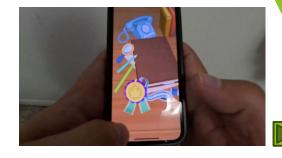




Current Carbon Tracking's UI, User Flow, & Mechanics

What Should Be Removed?







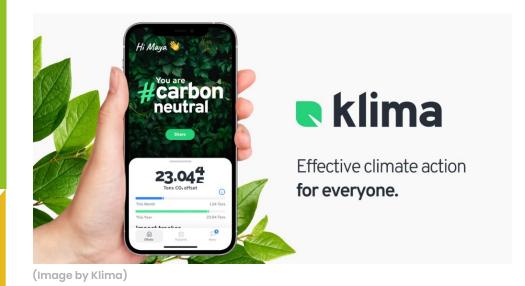


Potential Solution

Button Placement: Inconsistent between all screens and ineffective locations.

1. Yellow Button should be removed from the corner and relocated for better UX.

How to Improve Tanbii's Carbon Tracking Apps with Trending Carbon Tracking Features # 1



Klima App **** 4.5

- 50K+ Downloads on Google Play Store
- Reviewers appreciate transparency in project funding
- · Users like knowing exactly where their contributions are going

What is this app?

 A mobile app designed to help users track and reduce their carbon footprint.

Why did we choose it?

- Comprehensive tracking
- Progress Tracking / Friend Tracking
- Personalized Tips
- User-Friendly Design

How to Improve Tanbii's Carbon Tracking Klima's Trending Carbon Tracking Features

Calculate your personal carbon footprint.

easily understand the effects of your lifestyle.



The ability to calculate various daily activities to measure a user's carbon footprint.

- Questionnaire to tailor each user's experience
- Offers tips to each user to minimize their impact

Why is this feature trendy?:

 Apps like Joro & Capture use calculations to minimize carbon footprint

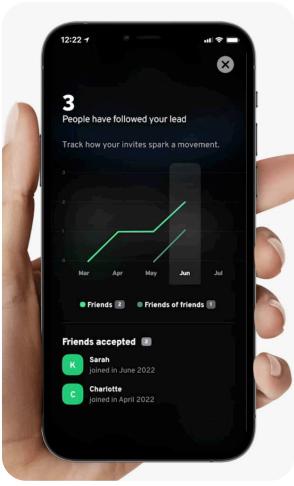
• Pros 👍 :

- Motivates users
- Increase awareness
- Provides personalized tips

• Cons • :

- Accuracy depends on how users input their data
- May need significant user input
- Might be overwhelming without proper guidance

How to Improve Tanbii's Carbon Tracking Klima's Trending Carbon Tracking Features



The use of graphs to display data

Toggle to view friend progress

Why is this feature trendy?:

- Apps like Joro & Capture use graphs to track & compare data
- Gamification increases user engagement by 60%

- Pros 👍 :
 - More engagement
 - User accountability & motivation
 - Social interaction
- Cons **?**:
 - Potential privacy concerns
 - Effectiveness relies on completeness of data input
 - Consistent user participation

How to Improve Tanbii's Carbon Tracking

Apps with Trending Carbon Tracking Features #2



(Image by Nest)

Nest App **** 4.6

 10M+ Downloads on Google Play & App Store

What is this app?

 The Nest app allows users to control various Google Nest devices, including thermostats, security cameras, and alarm systems, all from a single interface.

Why did we choose it?

- Unified platform for energy use & sustainability
- Smart home integration capabilities
- User-friendly interface

How to Improve Tanbii's Carbon Tracking

Nest's Trending Carbon Tracking Features



Prioritize using cleaner or less expensive energy.

Nest Renew⁸ is free to join and simple to get started. Just a few taps during set-up and you can start supporting a clean energy future, right from home.⁹

Learn more



(Image by Nest)

 Integrate smart home apps like Nest

Or

 Partner with utility providers to track usage

Why is this feature trendy?:

- Smart home market revenue to grow to \$151.4 billion in 2024
- More and more apps choosing sustainable practices
- Smart home devices to reach <u>63</u> million in 2027

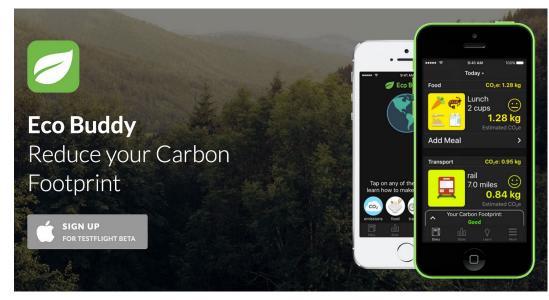
• Pros 👍 :

- More ways to track
- Awareness of daily consumption
- Accurate tracking
- Seamless integration

• Cons 🖓:

- Chance of compatibility issues
- Privacy concerns

How to Improve Tanbii's Carbon Tracking Apps with Trending Carbon Tracking Features #3



(Image by Eco Buddy)

Eco Buddy App **** 4.0

40K+ Downloads on App Store

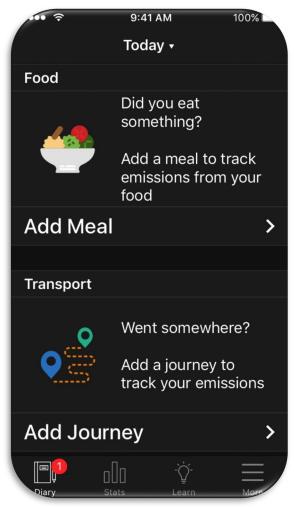
What is this app?

 A mobile app designed to help users track and reduce their carbon footprint.

Why did we choose it?

 Personal Eco-Challenges and Rewards System

How to Improve Tanbii's Carbon Tracking Eco Buddy's Trending Carbon Tracking Features



Behavior Change: Habit Formation and Impact awareness

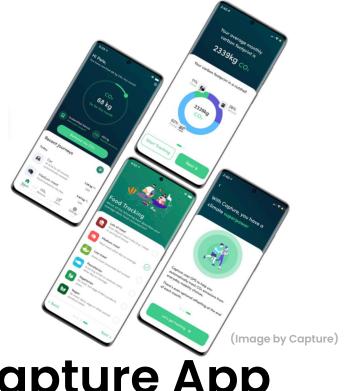
- Pros 6:Progr
 - Progress Tracking
 - Incentives
 - Competition
 - Practical Learning
 - Daily Use

- Why is this feature trendy?:
- Regular challenges help users form sustainable habits.
- Tracking progress helps users understand the impact of their actions, reinforcing positive behavior.

- - Only in UK but growing

How to Improve Tanbii's Carbon Tracking

Apps with Trending Carbon Tracking Features #4



Capture App

80K+ Downloads on Google Play & **App Store**

What is this app and why did we choose it?

A mobile app designed to track users' carbon footprint, particularly with transportation using GPS data.

Why did we choose it?

- Provides real-time feedback on emissions
- **Encourages reduction**
- Good example of promoting sustainability

Currently unavailable in our region

How to Improve Tanbii's Carbon Tracking Capture's Trending Carbon Tracking Features



Leaderboards for further engagement & competition

Why is this feature trendy?:

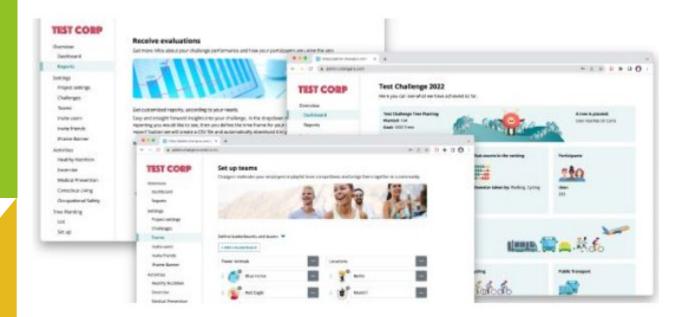
- Use of gamification
- Shown in about <u>90%</u> of mobile games
- Keeps users coming back

- Pros 👍 :
 - Drive engagement with competition
 - More engagement
 - Build community

- Cons ₹:
 - Privacy concerns
 - Data accuracy

(Image by Capture)

How to Improve Tanbii's Carbon Tracking Apps with Trending Carbon Tracking Features #5



Changers CO2 Fit App

5K Downloads on Google Play **** 4.0

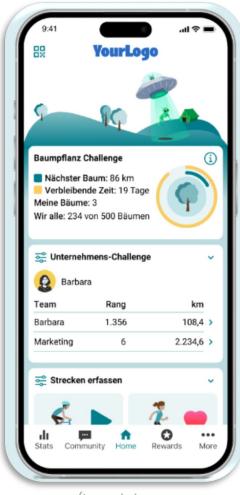
What is this app?

 Combines workplace health promotion with corporate social responsibilities

Why did we choose it?

- Customization options for both companies and their employees
- Educate users with workout videos, guided meditation, and recipes.
- Flexibility and Personalization

How to Improve Tanbii's Carbon Tracking Changers CO2 Fit App Trending Carbon Tracking Features



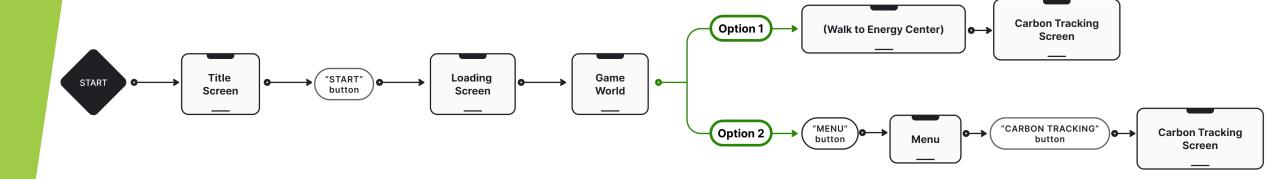
Community Challenges and Competitions

Why is this feature trendy?:

 a fun, engaging, and socially connected way to contribute to environmental sustainability

- Pros 👍 :
 - Social Engagement
 - Gamification
 - Real-time
 Tracking and Feedback
 - Educational Aspect
 - Flexibility and Variety
- Cons :
 - Company use only

New Carbon Tracking Design Suggestions Current User Flow



Open Carbon Tracking screen either by:

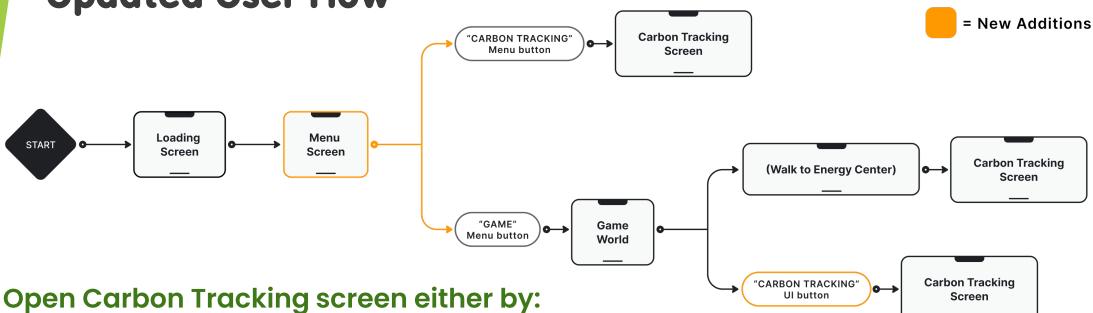
- 1. Walking to it through game world
- 2. Opening the menu page once game world is loaded

Why is this <u>not</u> favorable?:

- Skips over carbon tracking feature completely-no mention
- P No choice if users do not want to launch game first
- Users may forget about feature altogether

New Carbon Tracking Design Suggestions
KEY

Updated User Flow



- I. Using the Menu
- 2. Walking to it through game world
- 3. Selecting the "Carbon Tracking" Button (to be added in-game)

Why this <u>is</u> favorable:

- Less steps to launch game
 - Gives users control & option to play or check their carbon tracking progress
- Streamlined process to reduce backtracking

New Carbon Tracking Design Suggestions

New Features Consensus

Features	Julia	Sam	Sky	Jackie	Average Rank
Α	2	1	4	4	2.75
В	1	2	1	3	1.75
С	6	4	6	6	5.50
D	3	3	2	5	3.25
E	4	6	3	2	3.75
F	5	5	5	1	4.00

Features A and D were combined due to idea similarity

New Features:

A. Carbon Footprint Calculator (Klima) 2

B. Visual Data (Graphs) Representation (Klima) 1

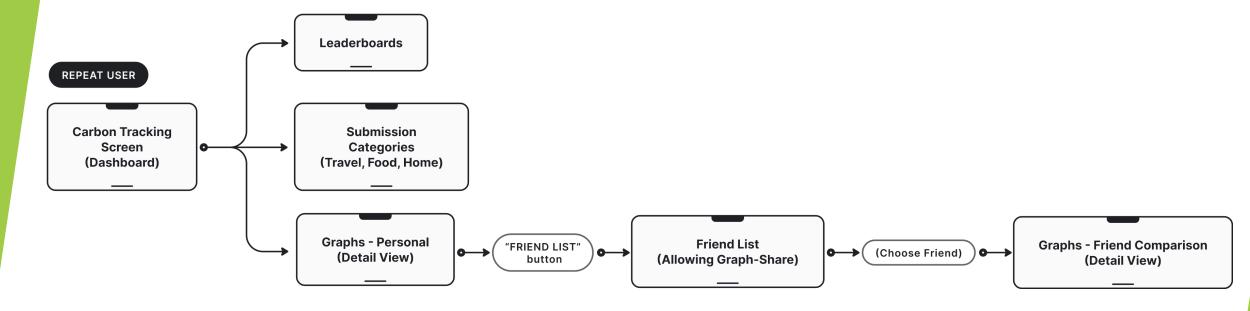
C. Smart Home App Integration (Nest)

D. Behavior Change (Eco Buddy) 2

E. Leaderboard Gamification (Capture) 3

F. Community Challenge & Competitions (Changers CO2 Fit)

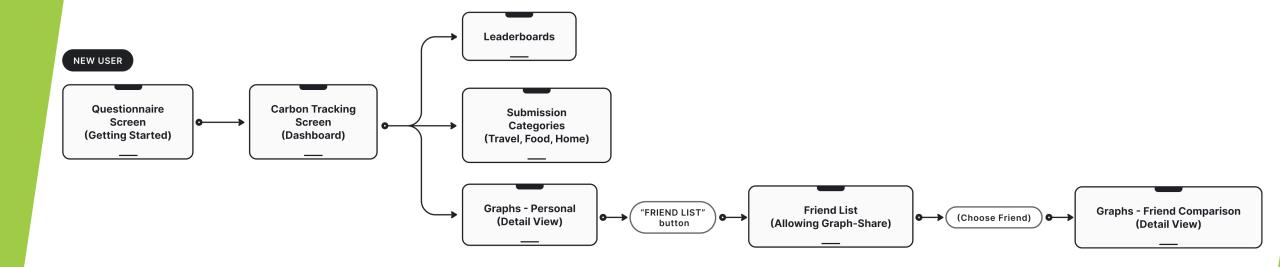
New Carbon Tracking Design Suggestions User Flow for New Features in Carbon Tracking Section



New Features for Repeat Users:

- 1. Leaderboards
- 2. New Submission section
- 3. Graphs
- 4. Friend List (Progress Sharing)

New Carbon Tracking Design Suggestions User Flow for New Users



New Features for New Users:

- 1. Questionnaire to get to know user's lifestyle and daily choices
- 2. Results of individual emissions report

New Carbon Tracking Design Suggestions

Updated Wireframes – Navigating to Carbon Tracking Feature



Logo now placed on Loading Screen for a more complete composition.

Carbon Tracking is a main component of Tanbii.
Adding it as a button is crucial for users to have direct access.



New Carbon Tracking Design Suggestions Updated Wireframes – For New Users

Once new users open the Carbon Tracking feature for the first time, they will be prompted to answer a short questionnaire.

This will personalize their tracking experience and implement the individual's lifestyle data accurately.

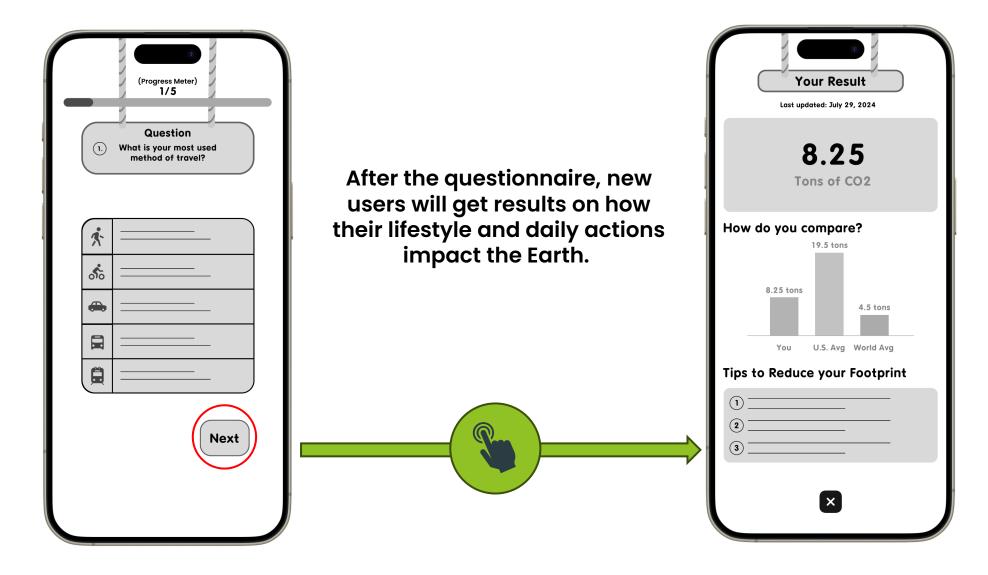


Example questions to be asked:

- 1. What is your most used method of travel?
- 2. How often do you consume meat or animal products?
- 3. How do you heat and cool your home (e.g., electricity, natural gas, oil)?
- 4. How often do you buy new clothes or electronics, and how do you dispose of old items?
- 5. How long are your average showers, and how often do you run dishwashers or washing machines per week?

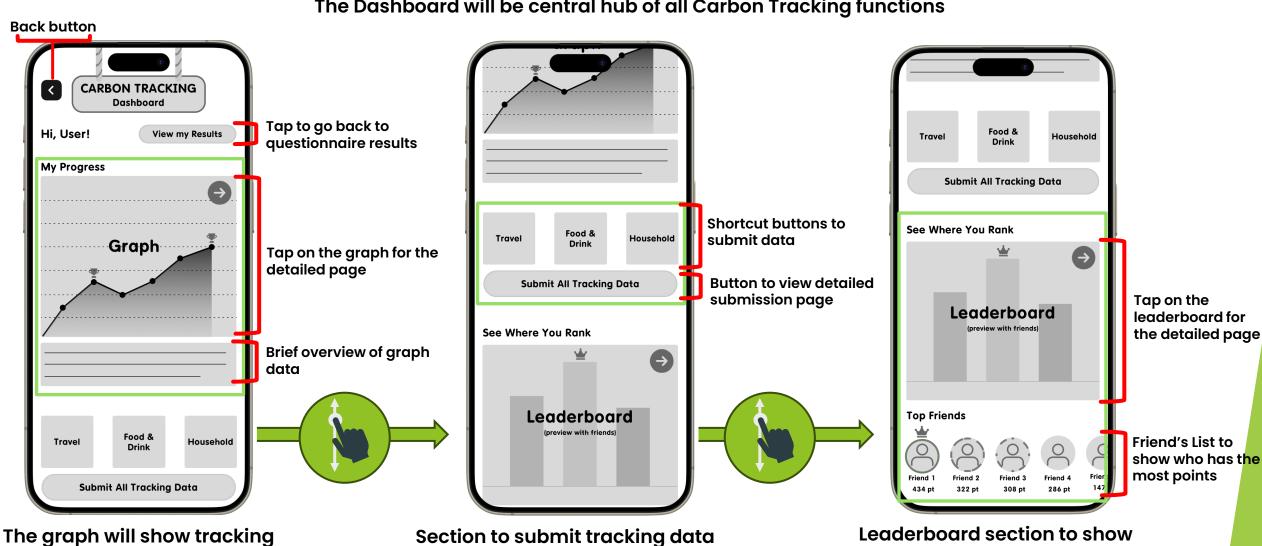
New Carbon Tracking Design Suggestions

New Wireframes - New Users Continued



New Carbon Tracking Design Suggestions **New Wireframes - The New Dashboard**

The Dashboard will be central hub of all Carbon Tracking functions



data and points progress

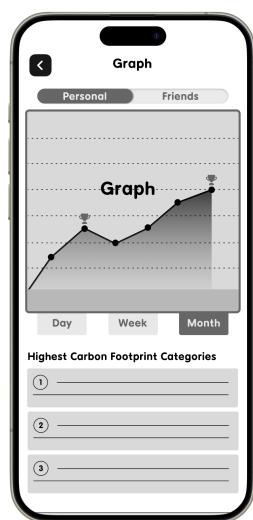
rankings and create competition

New Carbon Tracking Design Suggestions New Wireframes – Graph (Personal View)



Tapping the Graph widget leads to the Graph detail page





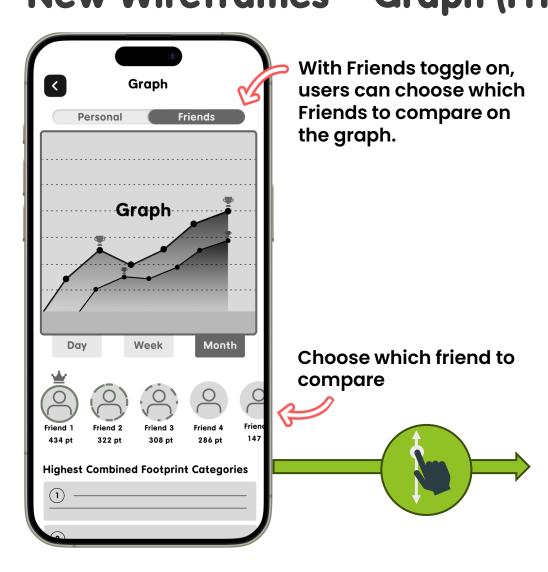
Includes insights on graph data such as:

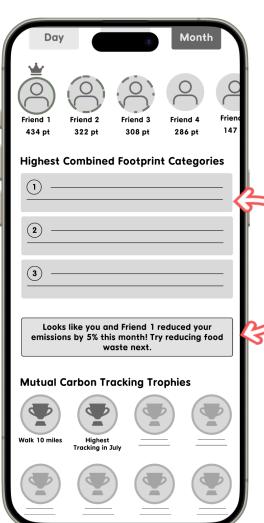
- Day/Week/Month views
- Which areas had the highest usage
- An actionable insight
- Trophies for achieving milestones



Day	We	eek	Month			
Highest (Carbon Foot	print Cat	egories			
<u> </u>						
<u>3</u> —						
You've reduced your carbon footprint by 12% this month! Try reducing food waste next.						
Your Car	bon Trackin	g Trophie	es			
Walk 10 miles	Highest Tracking in July					

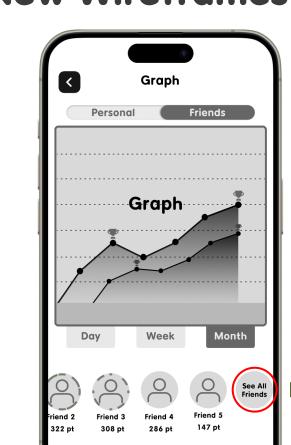
New Carbon Tracking Design Suggestions New Wireframes – Graph (Friend View)





All insights will be adapted to compare to friend's data as well.

New Carbon Tracking Design Suggestions New Wireframes – Graph (Selecting More Friends)



Highest Combined Footprint Categories

Under the Friend's comparison graph, users can view data from all friends that allow sharing.

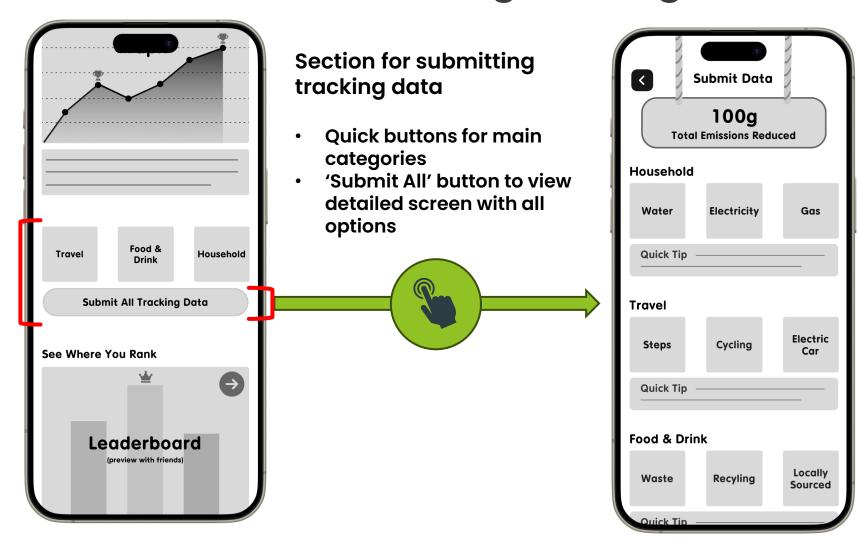
 See All Friends button to show full list





New Carbon Tracking Design Suggestions

New Wireframes - Submitting Tracking Data

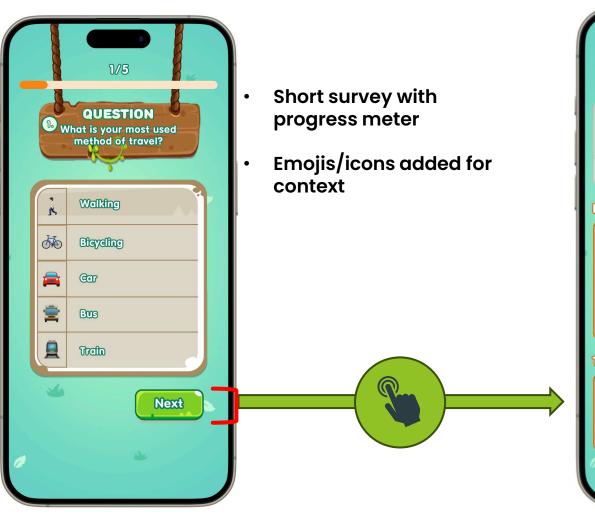


New Carbon Tracking Design Suggestions

New Wireframes - Leaderboard



New Carbon Tracking Design Suggestions High-Fidelity Mockups – New User Questionnaire & Result Page



Questionnaire Screen

YOUR RESULT Tons of GO2 How do you compare? 19.5 tons 8.25 tons 4.5 tons U.S. Avg World Avg Tips to Reduce your Footprint Use public transport instead of driving alone to decrease carbon emissions from (2) Incorporate more plant-based meals into your diet to reduce greenhouse gases. Switch to LED bulbs, energy-efficient

Results page can be updated monthly or quarterly for any new lifestyle

Short surveys each time

New Carbon Tracking Design Suggestions High-Fidelity Mockups - Dashboard



View my Results button to see Results page

Graph includes overview of insights & total emissions



'Top Categories' show user's most used tracking methods

Tapping these shortcut buttons will direct users to the respective submission pages

'View all Categories' button to go to main Submit Data page

Easily see which friends are leading the leaderboard.



Dashboard Screen

Dashboard Screen Continued

Tap for a detailed

YOUR TOP CATEGORIES

SEEWHEREYOURANK

(ó.à)

TOP FRIENDS

Electricity

Steps

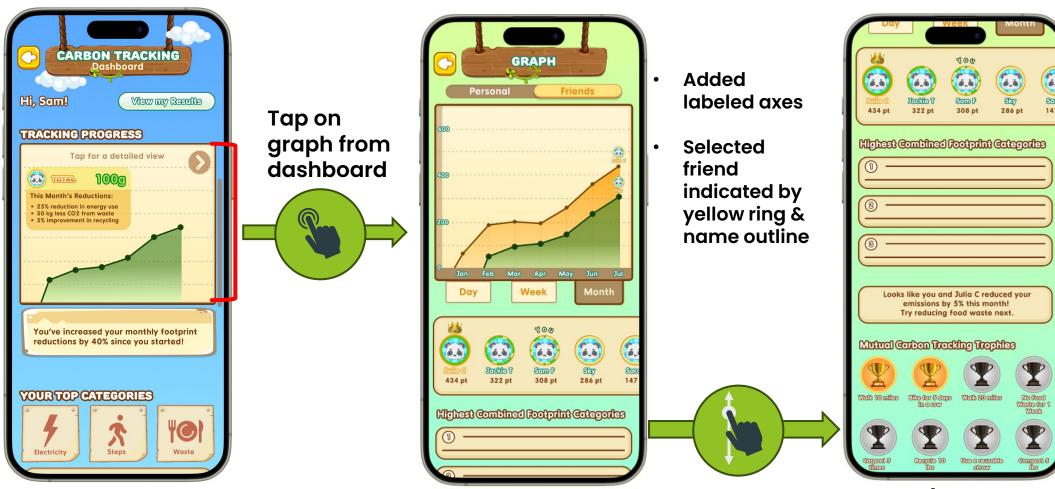
View all Categories

6.0

New Carbon Tracking Design Suggestions

High-Fidelity Mockups – Graph Page

Dashboard Screen



Graph Screen

Trophies
earned are
specific to
Carbon
Tracking

Graph Screen Continued 36

New Carbon Tracking Design Suggestions

High-Fidelity Mockups – Submission Page

SUBMIT DATA

Total Emissions Reduced

HOUSEHOLD

Quick Tip

TRAVEL

Quick Tip

FOOD & DRINK



Tap on button from dashboard



- Total emissions reduced displayed on top
- Submission data organized by categories



Submit Data Screen

000

Electric Car



Targeted

greater

carbon

emission

reduction

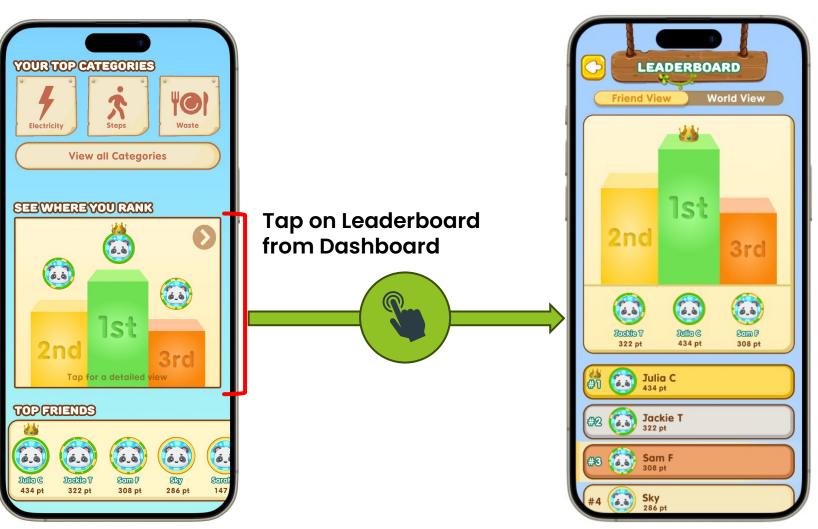
tips offered

to users for

Submit Data
Screen Continued

Dashboard Screen
Continued

New Carbon Tracking Design Suggestions High-Fidelity Mockups – Leaderboard Page



- Toggle between Friend and World Views
- Point values included for all friends
- User is indicated in the list by yellow highlight

Incorporating Green Messages

- Narrative Integration:
 - Weave environmental themes into the game's storyline and quests.



- Eco-Challenges:
 - Introduce in-game challenges focused on eco-friendly tasks.



- Educational Content:
 - Include facts, tips, and minigames that educate players on environmental issues.



Potential Green Gameplays for Tanbii

- Sustainable City Builder
 - Players build and manage an eco-friendly city.
- Carbon Footprint Quests
 - Quests that reduce the player's in-game carbon footprint.
- Virtual Eco-garden
 - Players grow a garden by completing real-life ecofriendly tasks.



Potential Green Gameplays for Tanbii

- House Plants as Positive Contributors
 - Games that educate players about the benefits of house plants.
- Green Rewards System
 - Rewards linked to real-life eco-friendly actions.



Partnering with Businesses

- Local Business Collaborations
 - Partner with nearby businesses to offer rewards.
- Real-Life Rewards
 - Redeem in-game points for real-life products.





Other Final Thoughts

- Change 'Energy Center' name to 'Carbon Tracking' since it opens to the new dashboard
 - Creates cohesiveness
 - Gets rid of disconnect through using energy centers vs Carbon Tracking menu section (in original design)
 - Make sure title is above the building in the game world
- Make spawn point near these centers in the game world
- Add these centers in every biome
 - Reiterates that players should make eco actions to track

Thank you

From Team Green Beans:

Jackie Tran Samantha Fishburn Julia Cagnina

References

Why Your Organization Might Roll the Dice on Gamification. action.deloitte.com/insight/2467/why-your-organization-might-roll-the-dice-on-gamification.

Statista. "Smart Home - Worldwide | Statista Market Forecast." Statista, www.statista.com/outlook/cmo/smart-home/worldwide.

Smith, Ellie, and Blacklane. "Your Carbon Footprint App Guide: Measure, Manage, Minimize." Blacklane Blog, 3 Nov. 2023, blog.blacklane.com/travel/apps-to-track-and-offset-your-carbon-footprint.

Cloke, Harry. "Gamification: Leaderboards in Learning Technology." Growth Engineering, 19 Dec. 2023, www.growthengineering.co.uk/gamification-leaderboards-lms.