



THE GLOBAL GOALS



ASEAN-CHINA-INDIA
YOUTH LEADERSHIP
SUMMIT 2024

Simplifying ustainability

REIMAGINE : ECO CITIES

FT UKI Suakadipura



TEAM MEMBERS



Jessica Miracella



Sartika Yolanda



Gabrielle Charles




Michelle Ayu



Gladys Deren





“The greatest threat to our planet is the belief that someone else will save it”

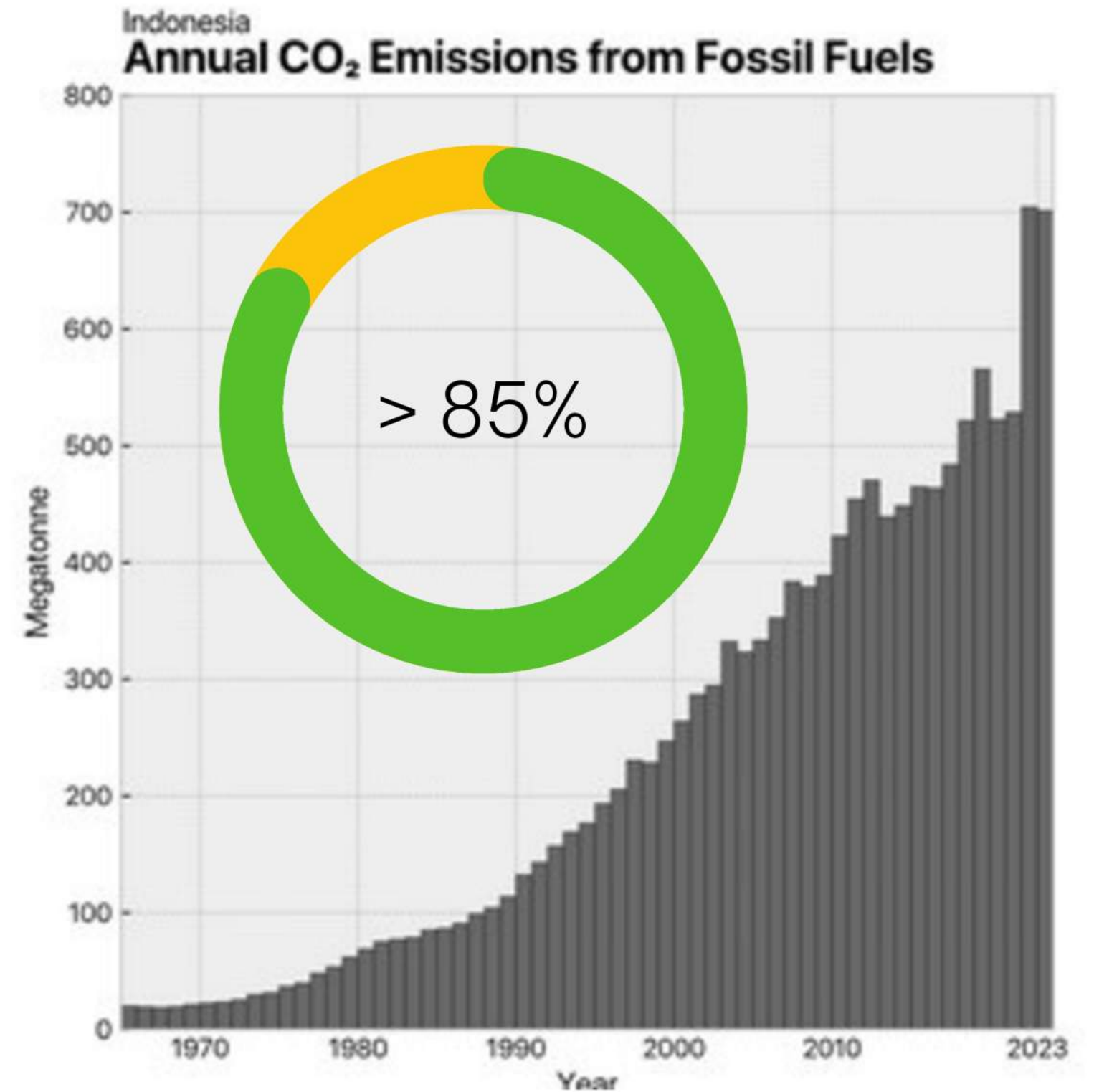
-Robert Swan



Indonesia's Energy Context

Indonesia's energy demand has multiplied, with fossil fuels accounting for more than 85% of the country's energy consumption.

Ref: Carbon Tax Essay: Emissions Policy Impact.



Causes of Indonesia's decrease in renewable energy consumption

Economic Growth

Industrialization

Increased Coal Consumption

Infrastructure and Investment

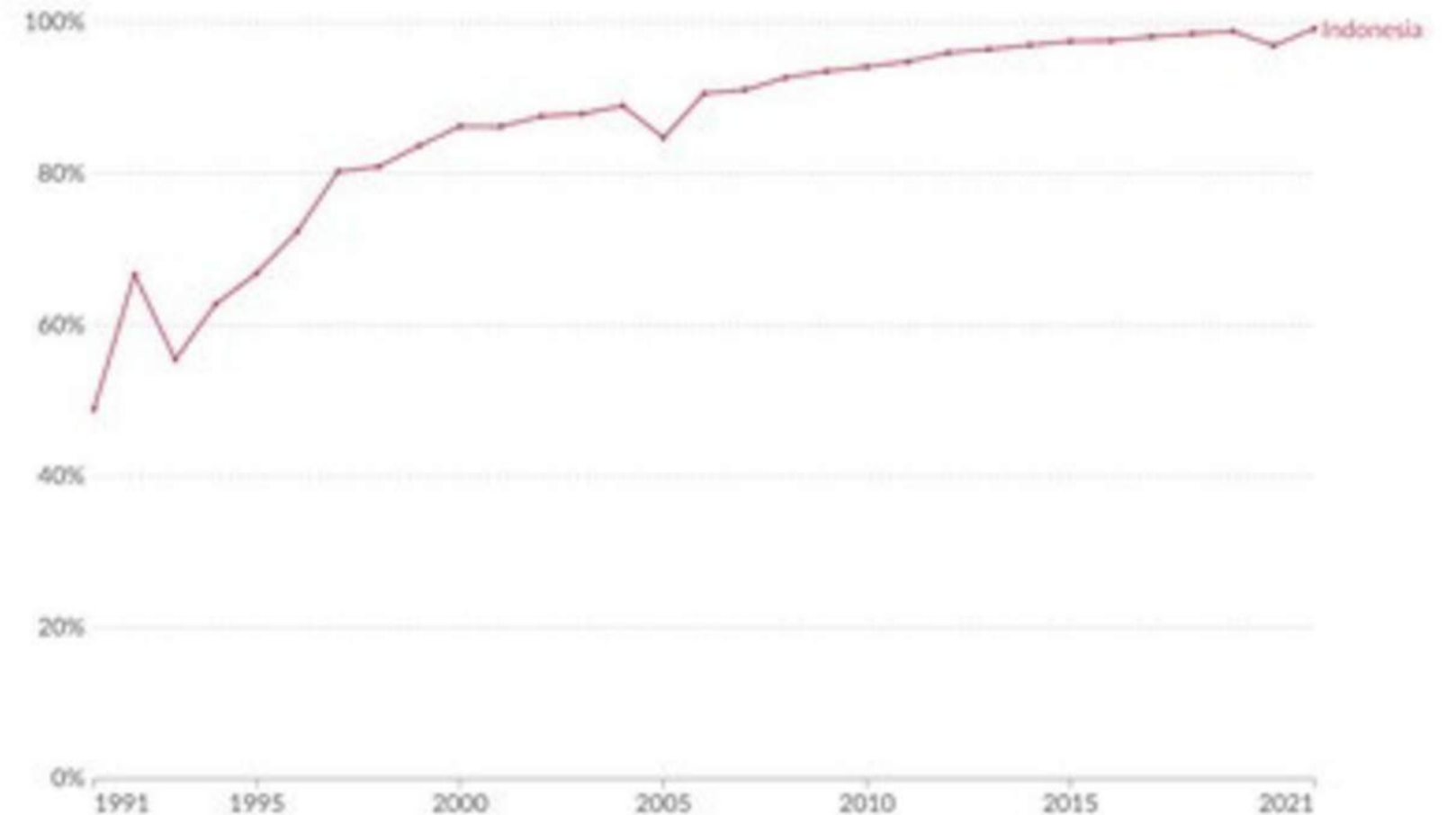
International Market Dynamics

Ref: Carbon Tax Essay: Emissions Policy Impact.

Share of the population with access to electricity

Having access to electricity is defined in international statistics as having an electricity source that can provide very basic lighting, and charge a phone or power a radio for 4 hours per day.

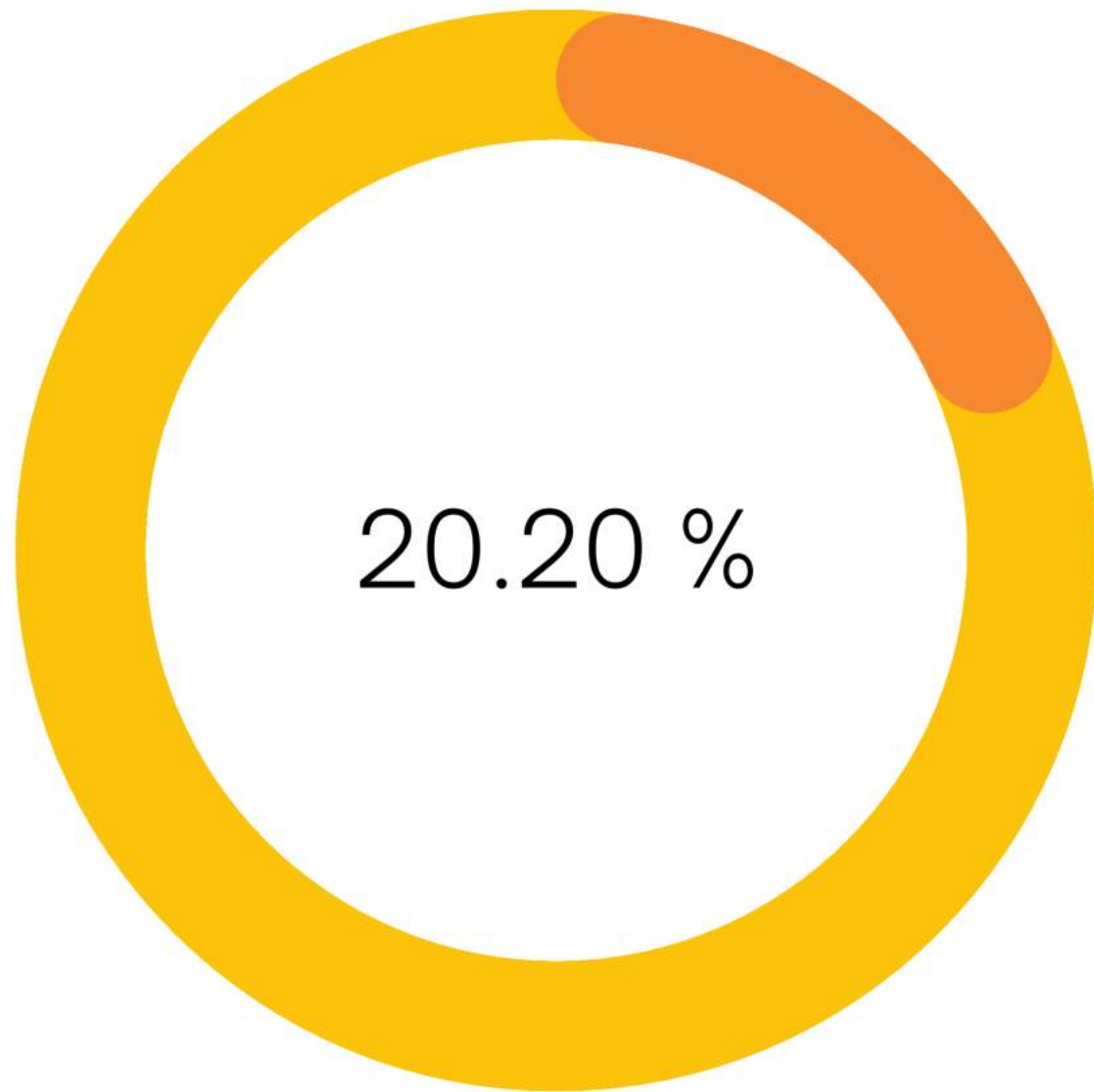
Our World
in Data



Data source: Data compiled from multiple sources by World Bank.

OurWorldInData.org/energy | CC BY

Indonesia's Energy Context



Only 20.20% of Indonesia's population have used renewable energy.

Ref: Indonesia World Bank Open Data.

The Joule Standard Energy Education and Solar Awareness Campaign (book by Maurice Adema) stated that energy illiteracy is a root cause of the global energy and environmental crisis, leading to inefficient energy usage, and worsening resource depletion.

Signs of energy illiteracy in a country include:

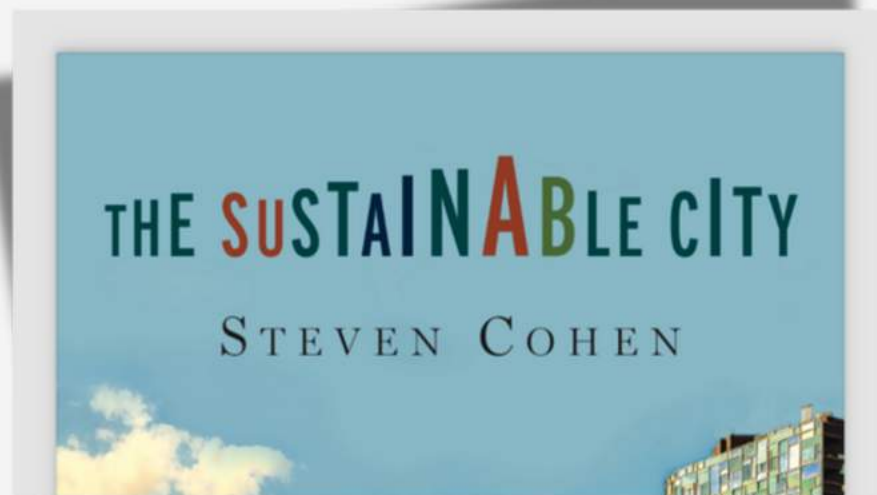
- Lack of basic knowledge about energy
- Misconceptions about energy concepts
- Inefficient energy use
- Limited awareness of sustainable practices
- Lack of public engagement
- Resistance to adopting energy-saving behaviors or technologies.

OUR MAIN GOALS

- Improving Access to Sustainable Energy
- Eradicating Energy Illiteracy

Strategies & Initiatives

All sectors and systems we should implement to be a sustainable city.



Based on "The Sustainable City" by Steven Cohen

Energy Systems

Renewable Energy Sources:
Solar Power, Wind Power.
Energy Efficiency
Building Design, Smart Grids

Water Management

Efficient Water Use
Low-Flow Fixtures, Water-Efficient Landscaping
Water Recycling and Reuse
Greywater Systems, Rainwater Harvesting

Waste Management

Reduce, Reuse, Recycle
Comprehensive Recycling Programs, Composting
Waste to Energy
Incineration with Energy Recovery,
Anaerobic Digestion

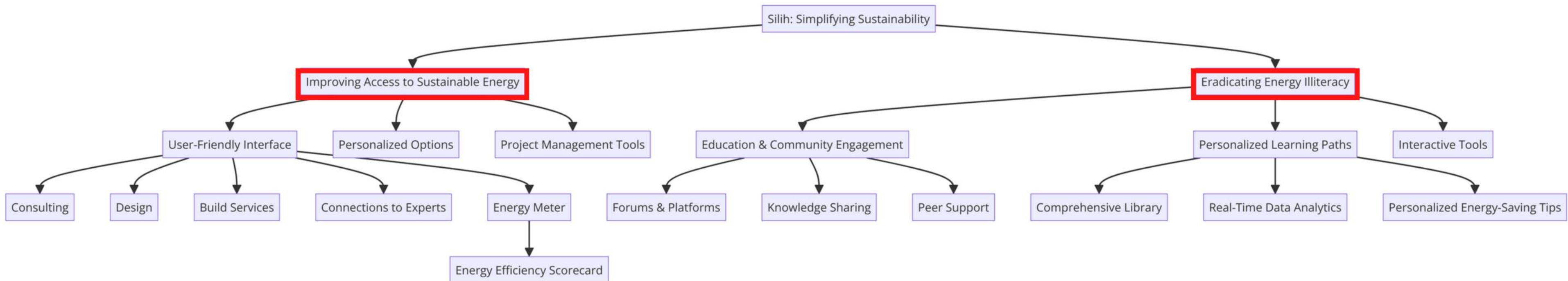
Green Spaces

Urban Greenery
Parks and Greenbelts, Green Roofs and Walls
Sustainable Landscaping
Community Gardens, Biodiversity Corridors

CORE PRINCIPLE

Think globally, act locally.

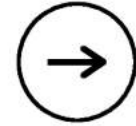
DESIGN FRAMEWORK



As architects, we are built to analyze and solve complex problems, continually responding thoughtfully to the environment, society, and climate.

SDG 7 Goals

Access to



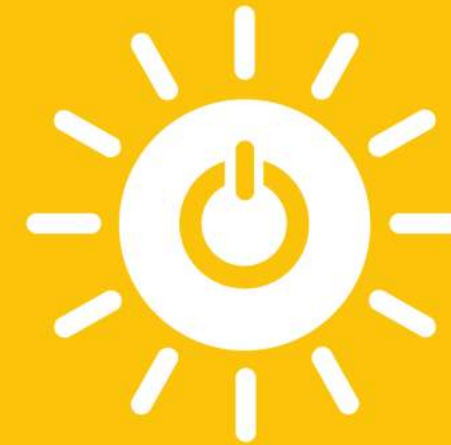
Affordable Energy

Reliable Energy Source

Sustainable Energy

Modern Energy

7 AFFORDABLE AND
CLEAN ENERGY



Aligning with the goals of UN SDG 7, we commit to fostering a more sustainable and energy-efficient future.

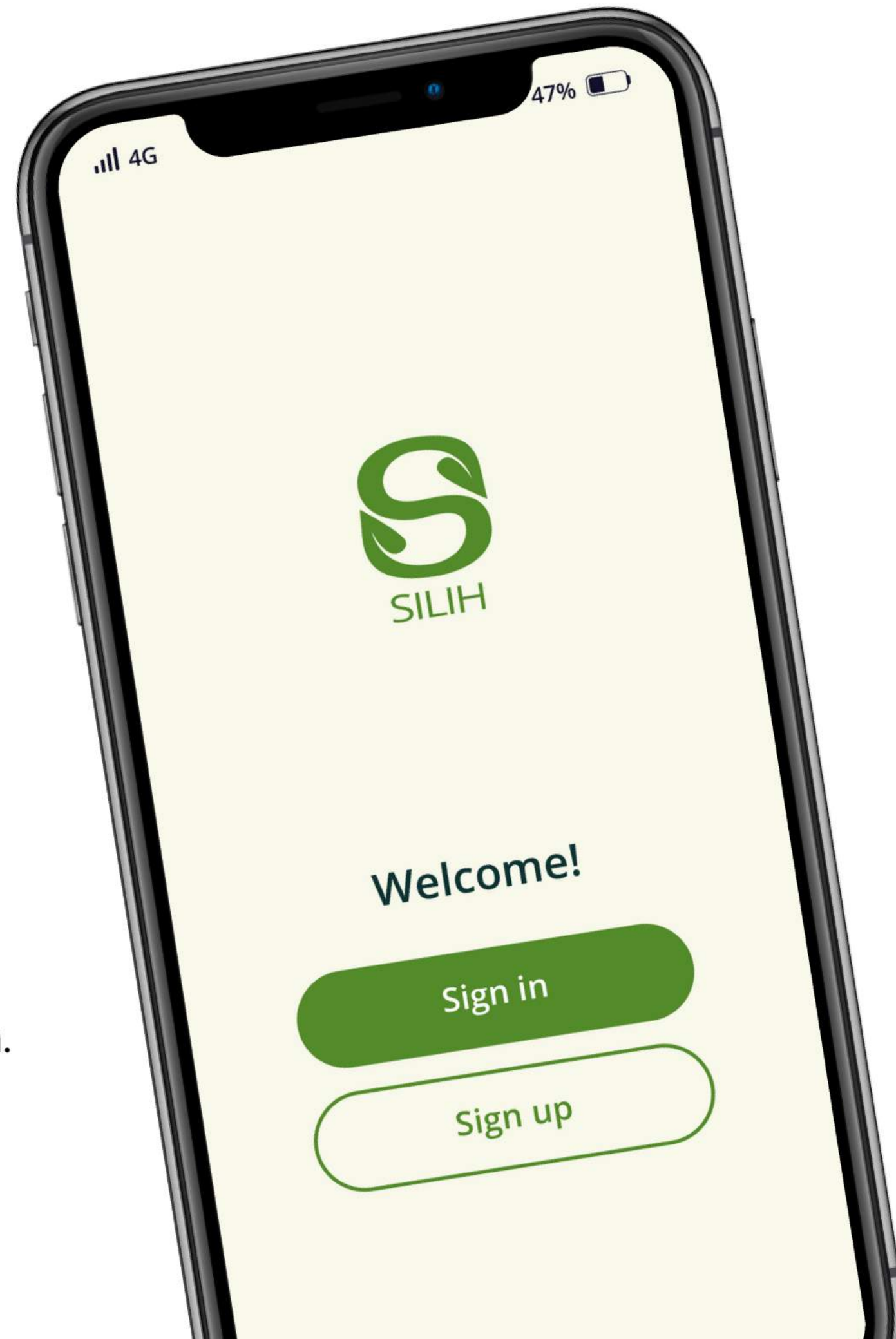
Problem Statement:

How might we ensure that energy efficiency becomes a priority for households, communities, and industries in Indonesia, fostering a culture of sustainable energy consumption?

Our Solution ?



An integrated platform that **simplifies sustainability for households, communities, and industries** in Indonesia.



Consulting
Professionals

Tracking Energy
Yourselves

Build & Design
Together

Community
For All



SILIH

Simplifying Sustainability

KEY FEATURES :

1

Consulting Services

Personalized recommendations from experts.

2

Custom Design Solutions

Tailored proposals based on goals and budget.

3

Build

Network of certified contractors and renewable energy providers.

4

Education and Community Engagement

Comprehensive articles and guides, Forums and community challenges

Features

with a user-friendly interface

● Search Engine

Allows users to search for information within the app's content.

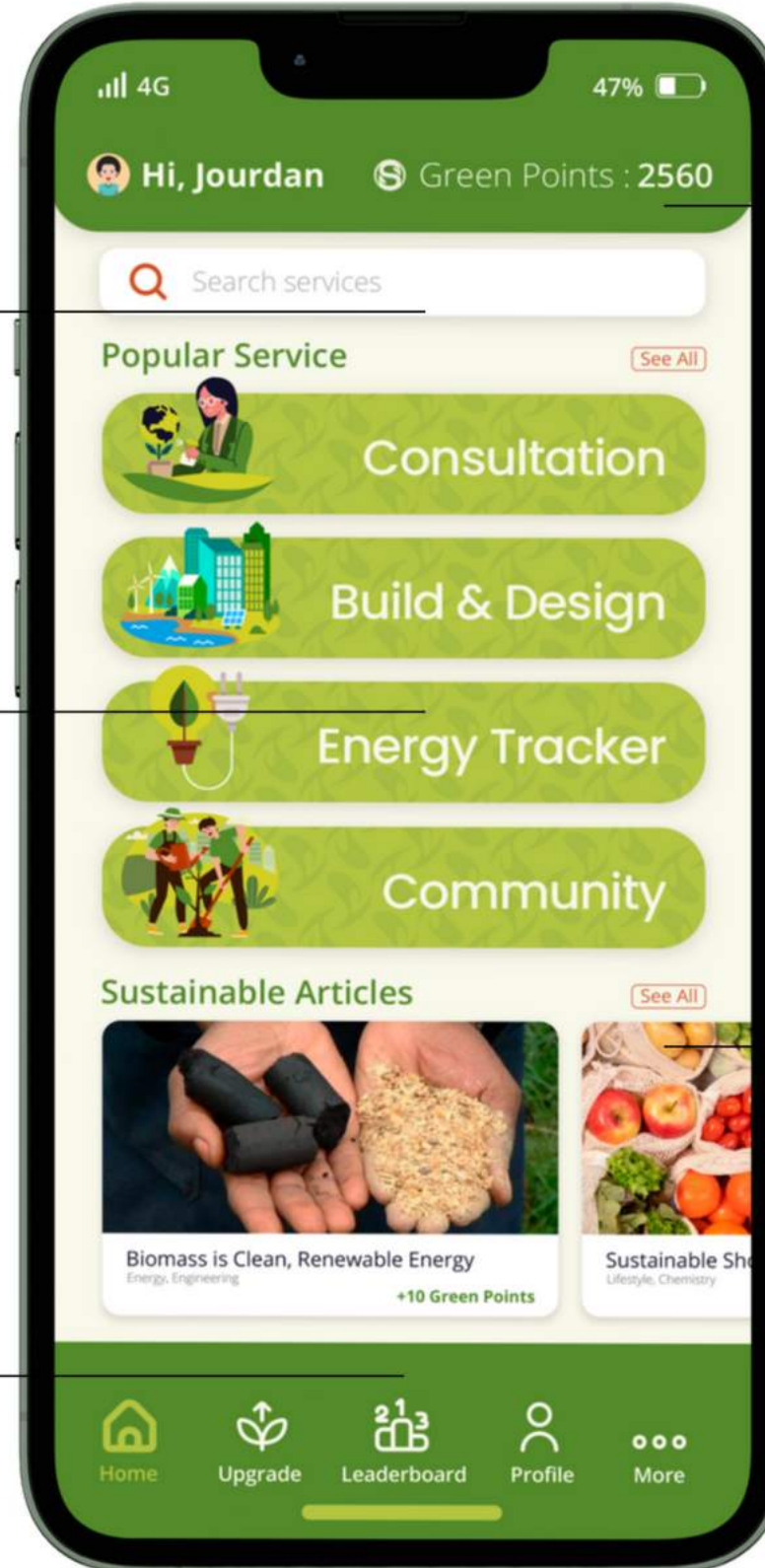
● Key Features

SILIH offers 4 Key Features:

- Consultation
- Build & Design
- Energy Tracker
- Community

● Navigation Bar

Showcase recent purchases in the shopping module and the latest comments in social.



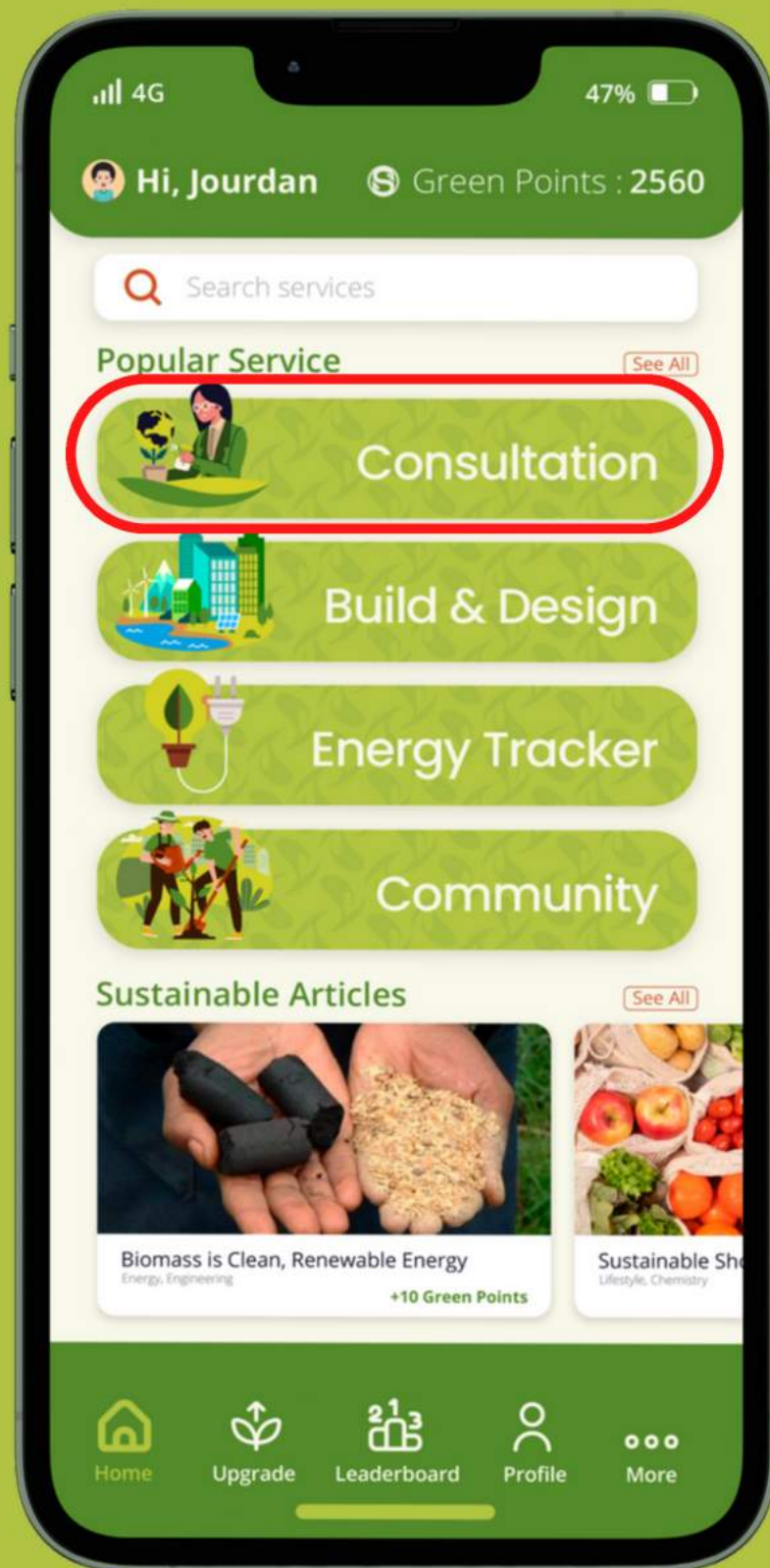
● Green Points

Points that users can collect by following certain instructions typically function as a reward system to encourage user engagement and activity.

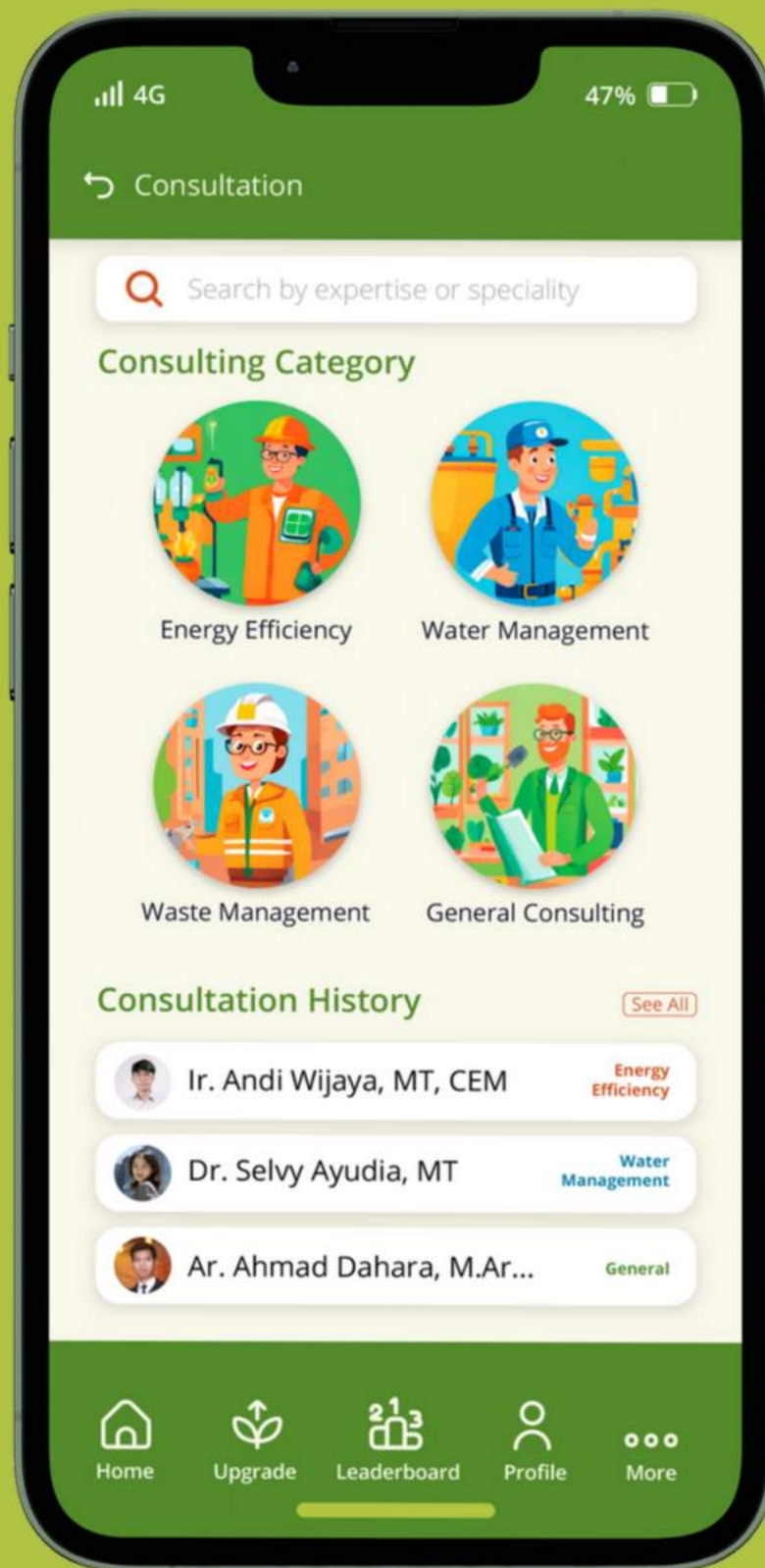
● Newsfeed

Delivering content such as articles, updates, tips, and resources from various sources dedicated to sustainability.

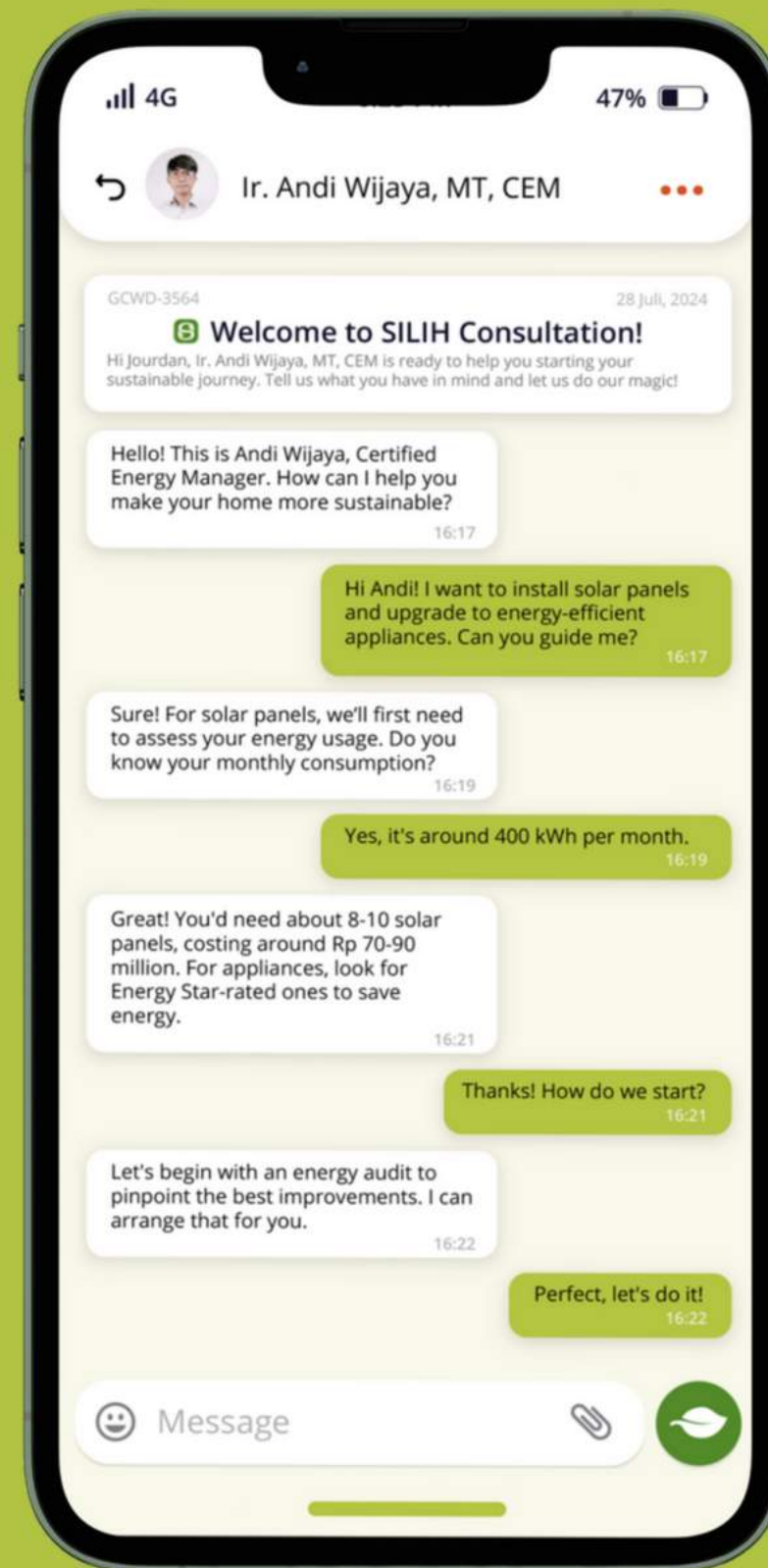
Choose Our Services



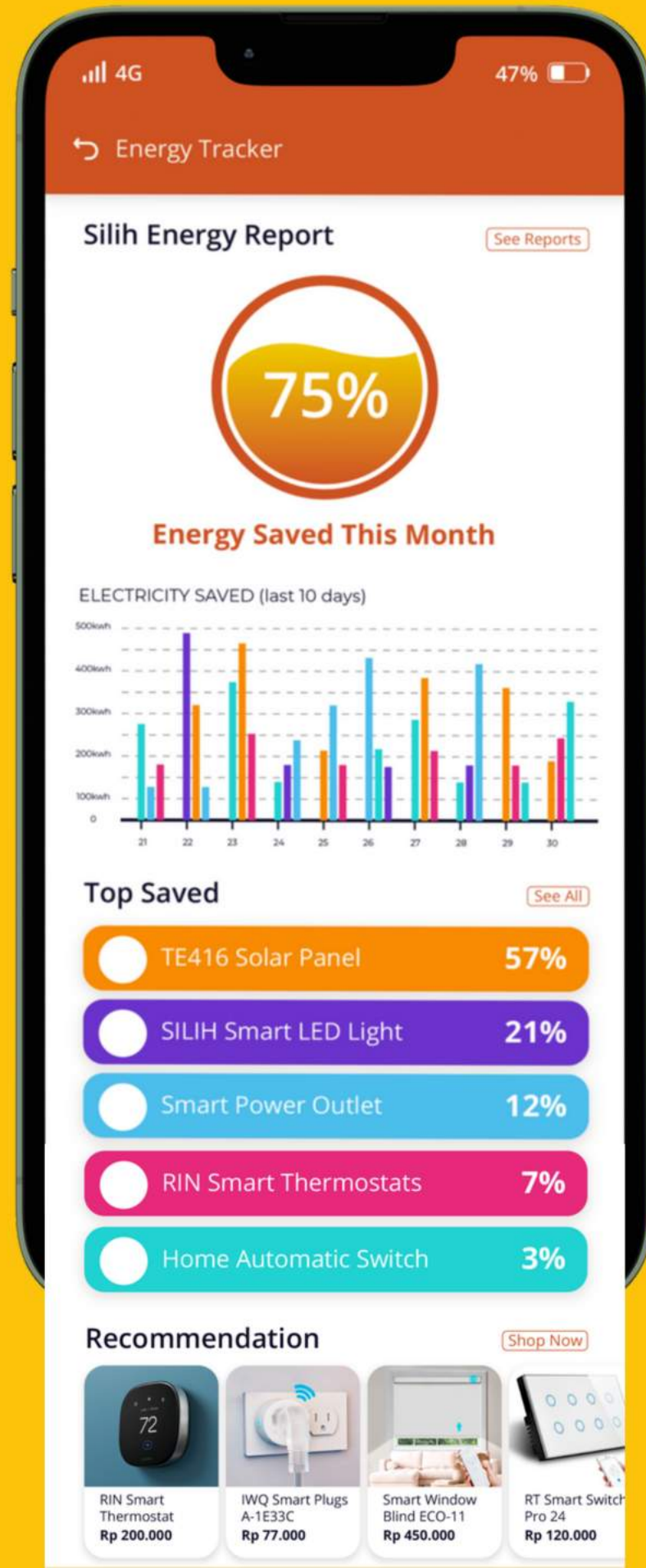
Select Expertise



Meet The Experts



Special Feature



Track your energy saving & energy usage!

With Energy Tracker

align with
SDG 7
7 AFFORDABLE AND
CLEAN ENERGY



SILIH

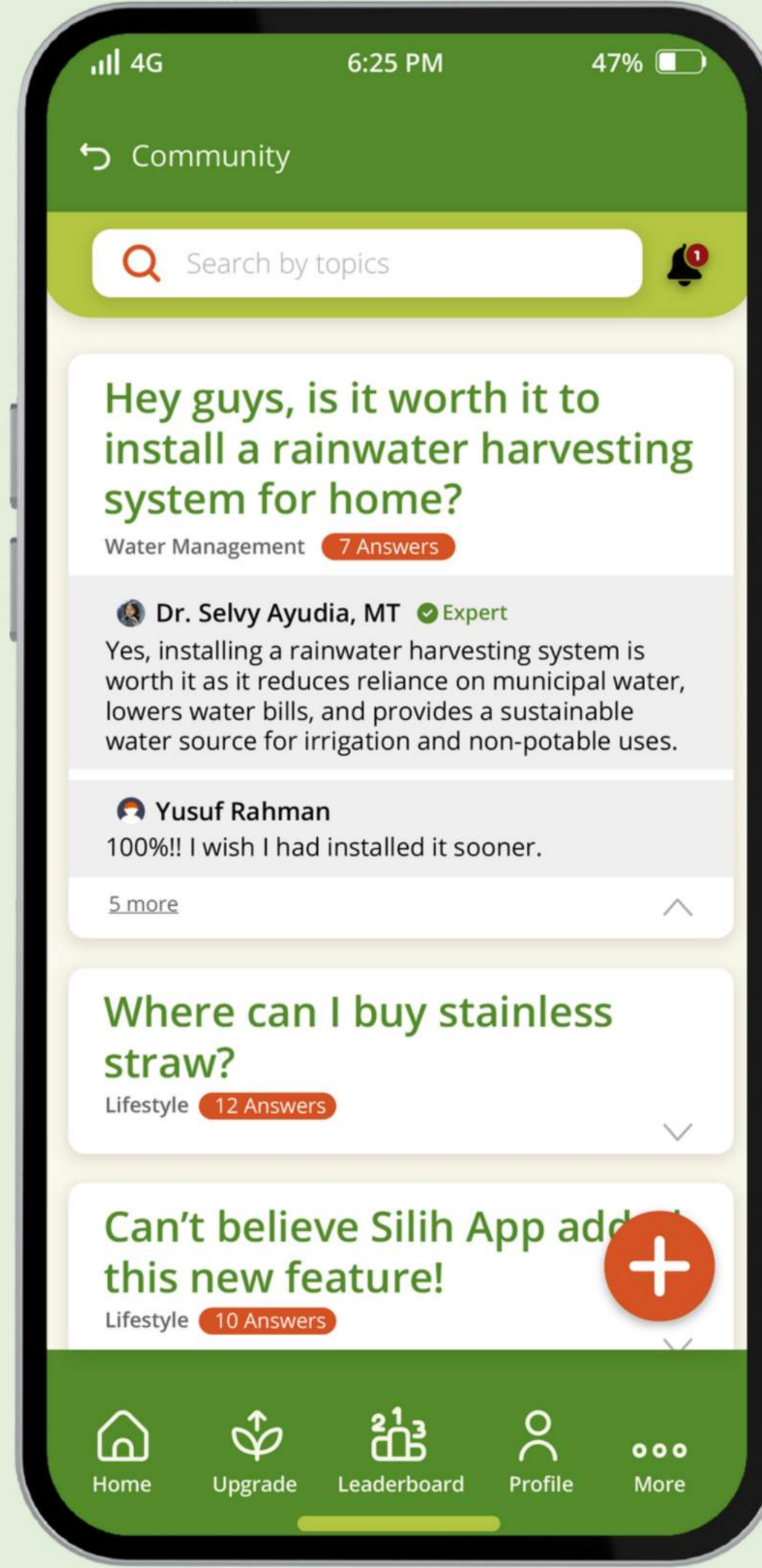
ENERGY LEADERBOARD

SILIH Championship, use to track your energy usage and measure the impact through a personalized energy efficiency scorecard.

It's a fun way to stay motivated and see your progress.



Social & Education Feature



- Starts a sustainable discussion
- Arrange sustainable event
- Share sustainable tips

Reference Studies



Archdaily

High-quality, curated content and resources.



Fiverr

Effective matchmaking with advanced search and filtering.



JouleBug

Gamification to drive engagement and sustainable habits.



HaloDoc

Seamless integration of services for comprehensive solutions.



Quora

Community-driven knowledge sharing with expert verification.

SWOT Analysis

STRENGTHS

- **Aligned with Global and Local Needs:** Addresses Indonesia's specific challenges.
- **Comprehensive Platform:** One-stop solution with a user-friendly interface.
- **Community Support:** High willingness to adopt green technologies.
- **Strategic Partnerships:** Strict criteria, ensuring high-quality & credible solutions.
- **Educational Focus:** Prioritizes energy literacy, engagement & knowledge sharing.
- **Technological Integration:** Real-time data analytics, gamification elements

S W

WEAKNESSES

- **Market Penetration:** Challenge in gaining market trust & recognition as a new player. Potential difficulty in convincing traditional energy users.
- **Infrastructure and Investment Gaps:** Dependence on existing infrastructure, which may not be fully supportive of sustainability.
- **Complexity of Solutions:** Potential user resistance due to the perceived complexity of sustainable energy solutions.

OPPORTUNITIES

- **Growing Energy Demand:** As Indonesia's energy consumption constantly grows.
- **Supportive Policies:** Government policies promoting renewable energy.
- **Technological Advancements:** Integrating emerging technologies: AI & IoT for energy management.
- **Cultural Shift:** Towards sustainable consumption.
- **Corporate Partnerships:** Collaborations with corporations aiming to reduce carbon footprint.

O T

THREATS

- **Economic Factors:** Economic downturns/fluctuations, competition from cheaper, conventional energy sources.
- **Market Competition:** Competition from established players, emerging startups.
- **Regulatory Changes:** Changes in government policies or regulations related to energy, potential for regulatory barriers.
- **Technological Challenges:** Risk of technological failures/cybersecurity threats, continuous need for innovation.

Business Model Canvas

KEY PARTNERS	
Green Energy Providers	Renewable energy companies, green tech vendors
Educational Institutions	Universities, research centers focusing on sustainability
Community Organizations	NGOs, local community groups promoting sustainability
Technology Providers	Firms offering data analytics, IoT, and AI solutions
Corporate Partners	Companies aiming to improve sustainability practices

KEY RESOURCES	
Technical Team	Developers, designers, data analysts
Content Creators	Experts in sustainability, writers, and educators
Partnerships	Access to green energy solutions and expertise from partners
Financial Resources	Funding for platform development, marketing, and operations
User Base	Engaged and active community of users

KEY ACTIVITIES	
Platform Development and Maintenance	Continuous improvement of the app's features and user interface
Partnership Management	Building and maintaining relationships with key partners
Content Creation	Developing educational materials, articles, and resources on energy efficiency
Marketing and Outreach	Promoting SILIH through various channels to increase user adoption
User Support	Providing customer service and technical support to users
Data Analytics	Utilizing real-time data to provide personalized energy-saving tips

VALUE PROPOSITIONS	
Comprehensive Solution	One-stop platform for all sustainable energy needs, from consultation to project management
User-Friendly Interface	Simplified connections between consumers and sustainable energy solutions
Educational Focus	Enhances energy literacy through personalized learning paths and community engagement
Real-Time Data Analytics	Provides personalized energy-saving tips and tracks progress
Strict Sustainability Criteria	Ensures high-quality and credible green energy solutions
Community Engagement	Fosters a supportive community for sharing knowledge and experiences

Business Model Canvas

CUSTOMER RELATIONSHIPS

Personalized Support	One-on-one consultations, personalized energy-saving tips
Community Engagement	Forums, peer support, and knowledge-sharing platforms
Educational Resources	Comprehensive library of articles, interactive tools, and personalized learning paths
Feedback Mechanisms	Regular surveys & feedback loops to improve the platform

CHANNELS

Mobile Application	Primary platform for user interaction and engagement
Social Media	Marketing, community building, and user engagement
Workshops and Campaigns	In-person and virtual events to promote sustainability and energy efficiency
Partnership Networks	Leveraging partners to reach a wider audience

CUSTOMER SEGMENTS

Households	Urban and suburban residents interested in sustainable energy solutions
Businesses	SMEs and large corporations aiming to improve energy efficiency and sustainability
Communities	Local community groups and organizations promoting sustainability
Educational Institutions	Schools, universities, and research centers focusing on energy efficiency

COST STRUCTURE

Platform Development	Costs associated with app dev, maintenance, and updates
Marketing and Outreach	Expenses for promotional activities and campaigns
Partnership Management	Costs related to establishing and maintaining partnerships
Content Creation	Expenses for creating educational materials and resources
User Support	Costs for customer service and technical support teams
Operational Costs	General administrative expenses (salaries, office, utilities)

REVENUE STREAMS

Consultation Services	Fees for expert consultations and personalized energy-saving advice
Project Management Fees	Charges for using the platform's project management tools for energy efficiency projects
Advertising and Sponsorship	Revenue from partners and green technology vendors advertising on the platform
Data Analytics Services	Offering data analytics and insights to corporate partners and stakeholders

Market Segmentation:

- **Adults age 20-60 lived in urban areas in Indonesia**
- **Connected to Internet** (In 2019, 62% of Indonesian adults in urban areas were connected to the internet - worldbank.org)
- **Willing to adopt green technologies** (around 60% of Urban Indonesians - worldbank.org)

Pre-Launch (2 Months)

- Social Media Teaser Campaigns: Rp. 25,000,000
 - Reach: 1,000,000 (assuming Rp. 25 per reach)
 - Clicks: $1,000,000 \times 1.5\% = 15,000$
 - Downloads: $15,000 \times 15\% = \mathbf{2,250}$
 - Active Users: $2,250 \times 40\% = \mathbf{900}$
- Pre-registration Campaigns and Influencer Collaboration: Rp. 50,000,000
 - Reach: 500,000
 - Downloads: $500,000 \times 0.8\% = \mathbf{4,000}$
 - Active Users: $4,000 \times 40\% = \mathbf{1,600}$
- Content Marketing and PR Campaigns: Rp. 25,000,000
 - Reach: 150,000
 - Downloads: $150,000 \times 0.8\% = \mathbf{1,200}$
 - Active Users: $1,200 \times 40\% = \mathbf{480}$

Launch (2 Months)

- Intensive Paid Ads on Social Media and Google Ads: Rp. 80,000,000
 - Clicks: 66,667
 - Downloads: $66,667 \times 15\% = \mathbf{10,000}$
 - Active Users: $10,000 \times 40\% = \mathbf{4,000}$
- Launch Event, Discounts, and Billboards: Rp. 140,000,000
 - Reach: 1,400,000
 - Downloads: $1,400,000 \times 0.8\% = \mathbf{11,200}$
 - Active Users: $11,200 \times 40\% = \mathbf{4,480}$
- Influencer Marketing (High-Profile Influencers): Rp. 100,000,000
 - Reach: 800,000
 - Downloads: $800,000 \times 0.8\% = \mathbf{6,400}$
 - Active Users: $6,400 \times 40\% = \mathbf{2,560}$

Post-Launch (6 Months)

- User Retention Campaigns, Ad Optimization, Content Marketing, and Promotional Events: Rp. 330,000,000
 - Clicks: 275,000
 - Downloads: $275,000 \times 15\% = \mathbf{41,250}$
 - Active Users: $41,250 \times 40\% = \mathbf{16,500}$

Total Download and Active User Targets

- Pre-Launch:
 - Downloads: $2,250 + 4,000 + 1,200 = 7,450$
 - Active Users: $900 + 1,600 + 480 = 2,980$
- Launch:
 - Downloads: $10,000 + 11,200 + 6,400 = 27,600$
 - Active Users: $4,000 + 4,480 + 2,560 = 11,040$
- Post-Launch:
 - Downloads: **41,250**
 - Active Users: **16,500**

Final Estimation

- Total Downloads (10 months): 7,450 (pre-launch) + 27,600 (launch) + 41,250 (post-launch)

76,300 downloads.

- Total Active Users (10 months): 2,980 (pre-launch) + 11,040 (launch) + 16,500 (post-launch)

30,520 active users.

For the first 10 months with big scale marketing

Financial Projections

STARTUP CAPITAL				
NO.	CATEGORY	QUANTITY	PRICE/UNIT	TOTAL
1.	Google Play Store Developer	1	Rp404.000	Rp404.000
2.	Apple Developer	1	Rp1.600.000	Rp1.600.000
3.	Server fee	1	Rp2.000.000	Rp2.000.000
4.	Software Engineer & Security	3	Rp12.000.000	Rp36.000.000
5.	Product Manager	3	Rp15.000.000	Rp45.000.000
6.	Designer	3	Rp10.000.000	Rp30.000.000
7.	Data Scientist	3	Rp15.000.000	Rp45.000.000
8.	Customer Support	1	Rp4.000.000	Rp4.000.000
9.	Marketing Specialist	3	Rp10.000.000	Rp30.000.000
10.	Legal Professional	1	Rp10.000.000	Rp10.000.000
11.	Marketing	4	Rp125.000.000	Rp500.000.000
TOTAL				Rp704.004.000

Objective: Build awareness and anticipation before the app launch.

Duration: 2 months.

Activities and Costs:

- Teaser Campaigns on Social Media: Rp. 30,000,000
Advertisements on Facebook, Instagram, TikTok.
- Pre-registration Campaigns: Rp. 10,000,000
Campaigns for early registration on Google Play and App Store.
- Influencer Collaborations (Early Teasers): Rp. 50,000,000
Utilizing influencers to build hype.
- Content Marketing (Blog, Video, Articles): Rp. 20,000,000
Creating high-quality content for SEO and awareness.
- PR Campaigns (Press Releases, Media Coverage): Rp. 20,000,000
Publications in mass media to increase visibility.

Total Pre-Launch Marketing Costs: Rp. 130,000,000

Objective: Gain downloads and active users at the time of launch.

Duration: 2 months.

Activities and Costs:

- Intensive Paid Advertising on Social Media and Google Ads: Rp. 100,000,000
Aggressive ad campaigns to reach a wide audience.
- Launch Event (Offline/Online): Rp. 100,000,000
A major event to celebrate the app launch.
- Special Discounts and Promotions: Rp. 20,000,000
Special offers to encourage downloads.
- Influencer Marketing (High-Profile Influencers): Rp. 100,000,000
Collaborations with influential influencers.
- Billboards and Outdoor Advertising: Rp. 50,000,000
Visual ads in strategic locations.

Total Launch Marketing Costs: Rp. 370,000,000

Objective: Maintain momentum and continue growing the user base.

Duration: 6 months.

Activities and Costs:

- User Retention Campaigns: Rp. 50,000,000
Email marketing and push notifications.
- Ad Optimization and Ongoing Promotions: Rp. 150,000,000
Optimizing ads based on early user data.
- Ongoing Influencer Collaborations: Rp. 150,000,000
Continued partnerships with influencers.
- Ongoing Content Marketing: Rp. 40,000,000
Creating continuous content to maintain engagement.
- Promotional Events and Contests: Rp. 50,000,000
Hosting events and contests to keep user interest high.

Total Post Launch Marketing Costs: Rp. 440,000,000

- Target Downloads (Month 1 - 10) : 76,300 users
- Target Growth/Month : 1,500 users
- Target Active Users (Month 10) : 30,520 users
- Target Active Users/Month : 278 users
- Consultation Fee : Rp. 350,000 per 90 minutes (Rp. 233,333 per hour)
- Consultation Revenue Split : 10% to SILIH
- Consultation Frequency : 1 hour per user per month
- Marketplace Charge : Rp. 2,000 per purchase
- Purchase Frequency : 15% of active users buy once every 3 months
- Monthly Expenses : - Rp. 400,000,000 for salaries
- Rp. 20,000,000 for marketing
= Rp. 420,000,000

CASH FLOW YEAR 1

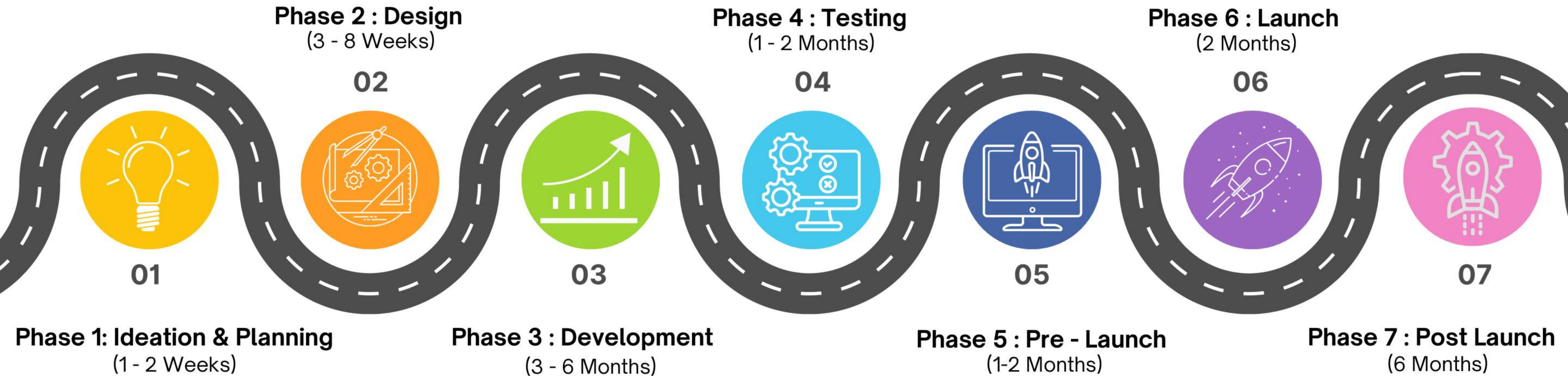
Month	Total Downloads	Active Users	Consultation Revenue	Marketplace Revenue	Total Revenue	Monthly Expenses	Cash Flow
1	7630	3052	Rp. 71,307,316	Rp. 3,052	Rp. 71,310,368	Rp. 420,000,000	-Rp. 348,689,632
2	15260	6104	Rp. 142,614,152	Rp. 6,104	Rp. 142,620,256	Rp. 420,000,000	-Rp. 277,379,744
3	22890	9156	Rp. 213,920,988	Rp. 9,156	Rp. 213,930,144	Rp. 420,000,000	-Rp. 206,069,856
4	30520	12208	Rp. 285,227,824	Rp. 12,208	Rp. 285,240,032	Rp. 420,000,000	-Rp. 134,759,968
5	38150	15260	Rp. 356,534,660	Rp. 15,260	Rp. 356,549,920	Rp. 420,000,000	-Rp. 63,450,080
6	45780	18312	Rp. 427,841,496	Rp. 18,312	Rp. 427,859,808	Rp. 420,000,000	Rp. 7,859,808
7	53410	21364	Rp. 499,148,332	Rp. 21,364	Rp. 499,169,696	Rp. 420,000,000	Rp. 79,169,696
8	61040	24416	Rp. 570,455,168	Rp. 24,416	Rp. 570,479,584	Rp. 420,000,000	Rp. 150,479,584
9	68670	27468	Rp. 641,762,004	Rp. 27,468	Rp. 641,789,472	Rp. 420,000,000	Rp. 221,789,472
10	76300	30520	Rp. 713,068,840	Rp. 30,520	Rp. 713,099,360	Rp. 420,000,000	Rp. 293,099,360
11	82310	33310	Rp. 777,733,300	Rp. 33,310	Rp. 777,766,610	Rp. 420,000,000	Rp. 357,766,610
12	83868	33588	Rp. 784,251,195	Rp. 33,588	Rp. 784,284,783	Rp. 420,000,000	Rp. 364,284,783
TOTAL PROFIT							Rp. 180.310.609

CASH FLOW YEAR 2

Month	Total Downloads	Active Users	Consultation Revenue	Marketplace Revenue	Total Revenue	Monthly Expenses	Cash Flow
13	85,426	33,866	Rp. 790,754,877	Rp. 33,866	Rp. 790,788,743	Rp. 420,000,000	Rp. 370,788,743
14	86,984	34,144	Rp. 797,274,319	Rp. 34,144	Rp. 797,308,463	Rp. 420,000,000	Rp. 377,308,463
15	88,542	34,422	Rp. 803,797,084	Rp. 34,422	Rp. 803,831,506	Rp. 420,000,000	Rp. 383,831,506
16	90,1	34,7	Rp. 810,322,986	Rp. 34,700	Rp. 810,357,686	Rp. 420,000,000	Rp. 390,357,686
17	91,658	34,978	Rp. 816,852,028	Rp. 34,978	Rp. 816,887,006	Rp. 420,000,000	Rp. 396,887,006
18	93,216	35,256	Rp. 823,384,212	Rp. 35,256	Rp. 823,419,468	Rp. 420,000,000	Rp. 403,419,468
19	94,774	35,534	Rp. 829,919,540	Rp. 35,534	Rp. 829,955,074	Rp. 420,000,000	Rp. 409,955,074
20	96,332	35,812	Rp. 836,458,015	Rp. 35,812	Rp. 836,493,827	Rp. 420,000,000	Rp. 416,493,827
21	97,89	36,09	Rp. 843,000,638	Rp. 36,090	Rp. 843,036,728	Rp. 420,000,000	Rp. 423,036,728
22	99,448	36,368	Rp. 849,546,412	Rp. 36,368	Rp. 849,582,780	Rp. 420,000,000	Rp. 429,582,780
23	101,006	36,646	Rp. 856,095,340	Rp. 36,646	Rp. 856,131,986	Rp. 420,000,000	Rp. 436,131,986
24	102,564	36,924	Rp. 862,647,425	Rp. 36,924	Rp. 862,684,349	Rp. 420,000,000	Rp. 442,684,349
TOTAL PROFIT							Rp. 4,391,000,940

Implementation Plan

Short-term Actions



Long-term Actions

3-10 Years

- **Sustainability Impact:** Launch community programs and workshops.
- **Market Leadership:** Establish SILIH as the go-to platform.
- **Global Expansion:** Initiate operations in neighboring SEA countries.
- **Innovation:** Continuously invest in R&D.

Impact and Goals



Accessibility

Ensuring all users can access sustainable energy solutions.



Energy Literacy

Educating users on the benefits and practicalities of sustainable energy.



Sustainability

Promoting the adoption of modern, efficient, and environmentally-friendly energy practices.

Conclusion

SILIH's Role

1. **Consulting** With Selected Experts
2. **Offering** Sustainable Design
3. **Implementing** Designs In Users' Homes

In The Long Run

1. Reduced Energy Demand
2. Environmental Protection
3. Sustainable Development



SILIH

Simplifying Sustainability

THANK YOU



**Simplifying
Sustainability**
App by Suakadipura



THE GLOBAL GOALS



ASEAN-CHINA-INDIA
**YOUTH LEADERSHIP
SUMMIT 2024**