Fostering Sustainability in Singapore

Insights and Actions for the Public Sector, Businesses, and Communities

Studio DOJO

TRIA

DesignSingapore Council

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Foreword

We Are All Running Out of Time

In his 2019 National Day Rally, Prime Minister Lee Hsien Loong declared the need for Singaporeans to treat climate change "with utmost seriousness… [as] these are life and death matters" for our country:

> "We must prepare for the impact of climate change on Singapore. There are many risks and consequences. New diseases, more frequent pandemics, food shortages, forced migration of displaced populations, and even wars. Because we are a low-lying island, Singapore is especially vulnerable to one grave threat, and that is rising sea levels."

Already, the country is seeing heavier rainstorms, flooding, and hotter, stickier days. The average Singaporean knows this well, according to a 2021 study on Singaporeans' awareness of environmental issues by OCBC Bank.[1]

[1] *Subhani, Ovais, "S'poreans Highly Aware of Environmental Issues but Adoption of Green Practices Lags: OCBC Climate Index." The Straits Times,* August 17, 2021.

I Know, But I Don't Do

Yet, the same OCBC study showed that despite their "high" awareness of environmental issues, Singaporeans are slow to adopt the green behaviours that this knowledge is supposed to inspire.

I know that...

🧠 Car travel emits 12x more CO2 than taking the train (95%)

🧠 Air conditioners emit the most CO2 of all household appliances (87%)

🧠 Plastic bags take 500 years to degrade (81%)

But I also...

🚗 Drive for >30 minutes a day on average (78%)

❄️ Use the air conditioner at home for more than 7 hours per day (34%)

🛍️ Leave my reusable bags at home when out shopping (78%)

Why this **gap between knowledge and action**? Sustainable change is often seen as costly or inconvenient. It's hard to maintain sustainable habits. Some people feel that the status quo is good enough and that individuals are too small to make any real impact. Others simply don't care enough.

I Care, But I Also Don't Do

In our survey, we found that besides the knowledge-action gap, there is also a gap between how much people say they care about the environment and their willingness to act on it.

💚 80% of Singaporeans surveyed said they care about the environment.

🌏 On average, respondents ranked sustainability as "very important" in purchasing decisions (see right).

🛒 Yet, only 32% make purchasing decisions based on product sustainability and environmental impact.

💵 Just 35% of respondents are willing to pay a premium for sustainable alternatives.

This makes it important to find out what prevents people in Singapore from turning their awareness and care for the environment into action.

Sustainability is a very important factor in my purchasing decisions.

5.36

0 = Strongly Disagree   7= Strongly Agree
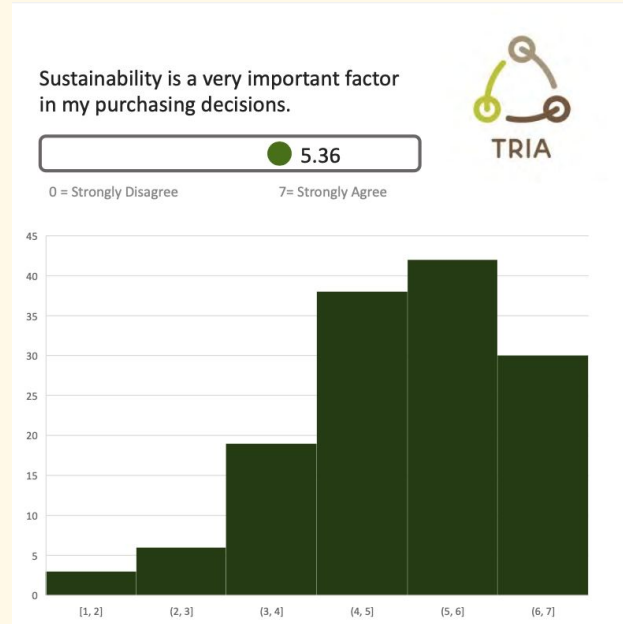
Results from TRIA x NTU SPAN quantitative survey (2023)

Making Sustainability Sustainable

It seems that raising awareness and knowledge alone can only go so far.

Getting people to adopt sustainable behaviours for the long term remains one of the movement's greatest challenges.

That said, **we also see this as a crucial opportunity**.

People act on what they care about most, and understanding Singaporeans' perceptions and concerns around sustainability asks us to dive deep into their lived experiences, environments, and cultural contexts for answers.

This is why Studio Dojo, TRIA, NTU SPAN, and a committed team of volunteer researchers have embarked on this insights report, supported by a Good Design Research (GDR) grant by DesignSingapore Council. We hope to equip public sector, business, and community organisations with the understanding and tools needed to spark lasting sustainable change.

Grounded in real-life stories, survey data, and field observations of everyday Singapore residents, these findings offer new, practical ways to approach sustainable change in Singapore.

Research Background

What We Sought to Know

These four questions (right) guided our citizen-led qualitative study and informed our in-depth discovery process:

Desktop Research

- Understand how organisations communicate sustainability and what people look for in these communications
- Semiotic analysis of brand communications and formal and informal sources (academic articles, news articles, industry reports, case studies, etc.)

Interviews & Home Visits

- 32 interviews to understand the lived realities, experiences, and perspectives of individuals with high, medium, and low levels of sustainability knowledge
- 6 home visits to observe how sustainable and unsustainable behaviour plays out in real-life in Singapore's households

1 **What aspects of sustainability do consumers consider?**

2 **How do organisations communicate sustainability aspirations to consumers?**

3 **Which of these stories and signals are effective with consumers, and why?**

4 **What are some key sustainability engagement levers for organisations?**

How We Handled the Data

The interviews and home visits were conducted face-to-face or via video conference from March to May 2023. We've sought to ensure privacy and confidentiality by using pseudonyms and removing any identifying details for our respondents.

We used a screener (Annex B) to group potential interviewees by their knowledge of sustainability (high/medium/low). The screener had True/False questions about materials and recycling as well as qualitative questions about their day-to-day sustainable behaviours.

These groupings are meant to add a layer of context, and are not meant to be exhaustive. After all, a person's knowledge of sustainability is just one of many factors influencing their sustainability behaviours!

After gathering and cleaning the data, we made sense of it all using thematic analysis and systems thinking frameworks.
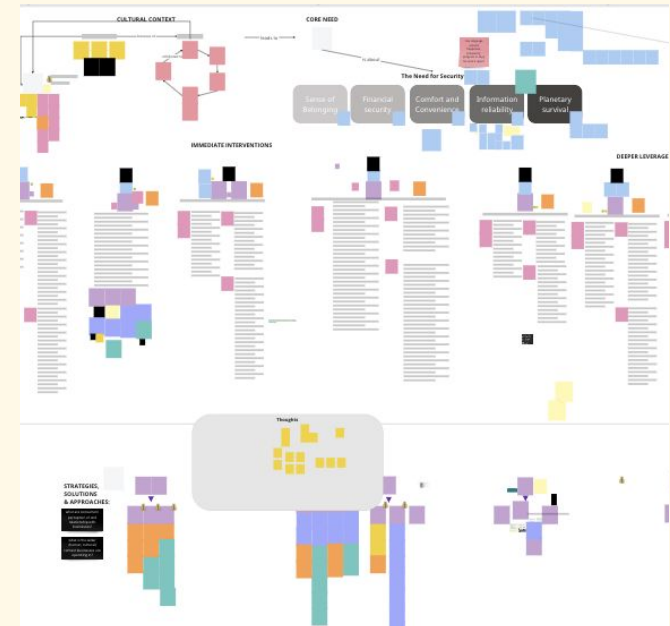
Thematic analysis clustering in Miro.

A Mixed-Methods Collaboration

Quantitative Survey

This report also incorporates findings from a collaborative quantitative survey by TRIA and Strategy Projects at Nanyang (SPAN), a module under the Nanyang Technological University's (NTU) MBA programme.

The survey involved asking 340 participants a set of 55 questions about sustainability, alongside desk research on 20 FMCG companies and 5 top sustainable brands.

While the qualitative segment of this study was designed to be broad and surface as many insights as possible, the quantitative segment focused on how consumers perceived sustainability traits in brands and their willingness to pay for sustainability initiatives.

NTU SPAN

TRIA

55 *Questions Asked*

340 *Participants*
52% Males, 48% Female
51% 20-30, 49% 30-40
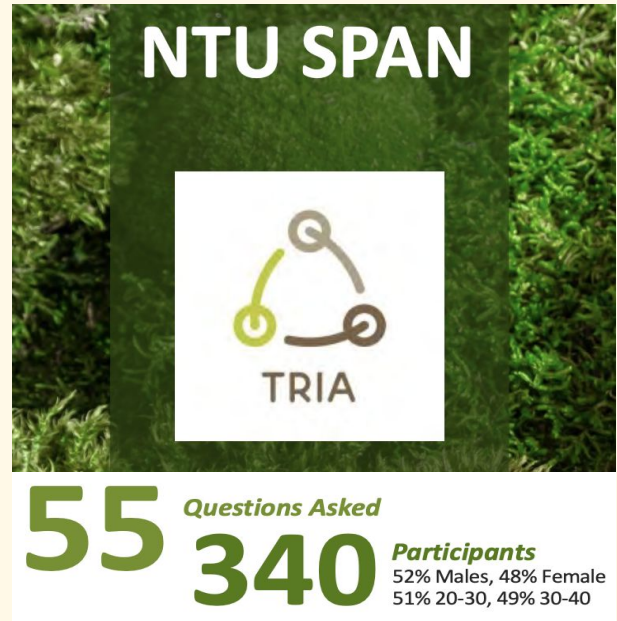
How to Use This Report

Whom Is this Report For?

We hope this report will offer you something useful, based on who you are and where you come from:

- A **civil servant** planning sustainability policies and initiatives with local culture in mind

- A **leader or manager** looking to bring sustainability into the workplace and organisational culture

- A **social impact investor** seeking frameworks to help companies be more sustainable

- A **designer** exploring how to create products and services that support sustainable behaviours

- An **advocate** curious about how to better communicate sustainability to people in Singapore

- A **curious citizen** wanting to know how to contribute more to sustainability in Singapore

- Anyone else who wants to encourage sustainable behaviour in a more tactful and effective way!

Whom Is this Report For?

We've identified 3 stakeholder groups of special importance in our report. Each plays a unique role, and their combined efforts are essential for fostering sustainable change in Singapore.

Public Sector

The government (ministries, agencies, statutory boards, civil & public servants) is essential for systemic changes and is highly trusted and relied upon by many in Singapore.

Business

Businesses (MNCs, SMEs, social enterprises) are an integral part of our day-to-day lives, providing people with many touchpoints and options for sustainable change.

Communities

Ground-up movements, community voices, and civic interest groups are the base units of society. Their voices are crucial to shaping what sustainable change looks like for everyday people.

4 Ways to Use this Report

1. **Dive deep into the key points**

   Our 8 Levers summarise key takeaways from our research into how Singaporeans relate to sustainability and prefer to have it communicated to them, as well as how companies communicate their sustainability efforts and aspirations.

2. **Use it as a springboard for changemaking**

   Each Lever includes provocations and suggestions meant to help stakeholders create lasting sustainable change. Grounded in real data and stories, these ideas are great starting points for how your organisation might do and communicate sustainability differently.

3. **Jump straight to the Stakeholder Guides**

   If you're in a government agency, business, or green organisation and are looking for immediate actionable steps, our Consolidated Suggestions for Stakeholders summarise our suggestions for both immediate wins and long-term, big picture change.

4. **Share it as a conversation starter**

   The stories, quotes, and real-world situations captured in this deck might feel relatable to some people you may know. Feel free to share them with the people around you—or anyone you know who's interested in sustainable change!

Snapshots of Sustainability

Stories from respondents in Singapore with high, medium, and low levels of sustainability knowledge

Meet Terri and Jo (High Knowledge)

Deep into sustainable living, Terri and Jo's habits have inspired family members across generations.

- Neatly stacked clear storage drawers and an open wardrobe remind them not to buy more of what they already have.

- Two composting systems (right) feed homegrown veggies with nutritious soil.

- They dumpster dive, often finding bags and discarded unopened food.

- They wear only second-hand clothes, buy showroom furniture at discount, and collect free items after exhibitions end.

- A bidet system means they use less than a roll of toilet paper each year.

Terri and Jo's microbial (left) and vermiculture (right) composting systems.

The compact dishwasher at Terri and Jo's house.

"[The dishwasher] also reduces unnecessary stress, when we started to argue in a marriage about 'oh you should do that', etc. Now it's just like, dishwasher is loaded already and we spend time together, so it's really good."

While studying composting for her thesis, Jo taught her grandmother how to compost. Her brother now contributes the family's compost to a community garden nearby.

When she started using reusable menstrual products, this made her grandmother concerned. To her grandmother, who had experienced scarcity in Singapore's past, being able to afford "disposable [products is] like a sign of progress."

Meet Zhang Rui (Medium Knowledge)

A conscious consumer, Zhang Rui's sustainability actions stick to what she feels she can control: her spending.

- When asked about sustainability, she recalled departmental meetings on sustainability knowledge at work and a friend who helps with community gardening.

- Still, her own engagement with sustainability is almost all through how she consumes—in part because it's a private activity that won't make her stand out.

"My brother encourages throwing. Mass buy during sale. Buy surprise box from Lazada. Throw when it becomes too cluttered. Thinks if we're reluctant to throw means we're hoarders."

Zhang Rui sorts her recyclables, although her family members do not.

> **"Not drawn to eco-conscious brand. I feel it's a marketing gimmick, [I] care about budget rather than eco-conscious message."**

She is mindful of what she buys, scans Carousell for second-hand goods, and prefers supporting traditional businesses such as roadside cobblers.

She loves Foreword Coffee not just for their recyclable cups and used-milk-carton furniture but also because they hire people with disabilities.

Zhang Rui feels her efforts may be "a tiny drop in a larger ocean"—but she still feels "uncomfortable" if she doesn't do them.

Table and chair set made from around 200 recycled milk bottles and caps by Semula, at Foreword Coffee*.*

Meet Chris (Low Knowledge)

Confident that environmental harms won't affect him much, Chris prioritises his lifestyle and financial needs.

Chris feels that even though the destruction of the environment is very likely, it won't affect him within his lifetime. Because he feels his individual impact on the environment is tiny, it doesn't matter whether he lives in a sustainable way—so why change his choices for it?

This leads him to value convenience, cost, and efficiency far above sustainability. For example, he gets annoyed when his takeout lacks plastic cutlery, because he has to ask for it. That said, this efficiency mindset also leads to some sustainable habits—he only buys 1–2 pieces of new clothing each year.

Skeptical of his friends' sustainable actions (e.g. buying "cute" reusable cups to personalise them), he teases them for being "try hard", despite admitting that they're "actually [doing] good".

"I don't really understand why they want to do [sustainable actions] or put it so much effort because no matter how much they try, there is something they are not optimising. Then so why bother in the first [place]? Why bother slowing it down if cannot stop it, but [that's] just me."

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Meet Chris (Low Knowledge)

"My effect is not sizeable enough to create any impact that would cause a noticeable or visible change in anything."

"I think 90% of people are like supportive towards helping the environment because they do not want to see the world end, unless they have some hatred for the world. It is just depends whether they find the effort they have to put in worth it."

"I hope that there are not so many people who think the same way as me. I have more faith in other people at least in this aspect."

"As of now the plastic bag is free so I just take until they start charging."

All 3 people in these snapshots live in Singapore. Like the other people we spoke to, their stories sit within the larger context of the Singapore Story.

This has a great influence on the role sustainability plays in their lives.

To understand this better, we must first understand how the Singapore Story shapes sustainability in our island nation.

Cultural Context

"Always design a thing by considering it in its next larger context—a chair in a room, a room in a house, a house in an environment, an environment in a city plan."

— Eero Saarinen, architect and industrial designer

The Singapore Story

Taught to every Singaporean, this is the story of our country's growth from humble beginnings to becoming one of the richest, most developed and stable places in the world.

We, the citizens of Singapore,
pledge ourselves as one united people,
regardless of race, language or religion,
to build a democratic society
based on justice and equality
so as to achieve happiness, prosperity,
and progress for our nation.

Happiness, Prosperity, and Progress

The quest to achieve happiness, prosperity, and progress for our nation is where we find ourselves in the Singapore Story.

It is in this larger story that the tensions and opportunities around creating lasting sustainable change lie.

Grappling with First-World Tensions

Even though our country is successful now, Singapore still faces many of the same threats since its founding:

- With no natural resources, Singapore relies on its neighbours for necessities like food and water.

- People are still its main resource, which means there's lots of competition and pressure at work and in school.

- Singapore's economy is closely tied to global finance and trade, which makes us vulnerable to economic shocks.

- We still worry about political, military, and terrorist threats from abroad.

- Even though we have multicultural policies, many disagreements remain in our diverse population.

- If we stop growing, we may not have enough money or power to guarantee our stability and security.

These tensions influence, overtly and subtly, how people in Singapore think about and act on sustainable change.
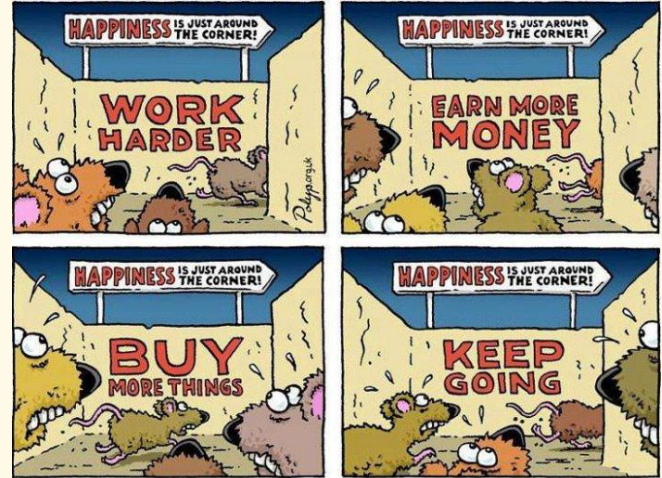
Illustration of Singaporeans' experience of the rat race, by Seedly (2017), "Working Adults: Is It Possible To Break Free From The Singapore Rat Race?"

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The 5 Security Needs of Singaporeans

In our research, we heard many stories around the need to feel secure and the tensions people face navigating its different layers.

We discovered that 5 specific types of Security Needs frequently came up in our discussions about sustainability.

When people consider adopting a sustainable behaviour or purchasing a sustainable product, the alignment or conflict between these security needs and the options available often influences their final decision.

Financial Security

Lifestyle Security

Relational Security

Truth Security

Existential Security

1. Financial Security $

The themes of the 1998 Singaporean comedy "Money No Enough" show a common worry in Singapore society.

As the economy tightens and prices rise, people are more sensitive to sustainable products and services as more expensive choices.

This lowers their financial security and is a key blocker to more sustainable ways of living.

"I have my own financial goals, such as buying a house or mobile phones, so these are steps that I can do to reach the goals and it is important that I can get there."

R25, medium level of sustainability knowledge

Background: Jack Neo, "Money No Enough 2" (2008)

2. Lifestyle Security 🚗

Having lived out the story of Singapore's progress from Third World to First, we've all become used to some creature comforts—and feel like we've worked hard to earn this lifestyle.

This can include convenience, ease, speed, luxury, and comfort.

Giving any of these up to be more sustainable can be a tough choice to make.

"If something is too hard I won't do it, but if [it's] something that I perceive [takes] almost like negligible effort then there's no reason not to do it, especially if I see that it's important."

R33, medium level of sustainability knowledge

Background: Grab Singapore

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3. Relational Security

With the hustle and bustle of life, many people want to return to a place of peace and harmony.

Becoming more sustainable can feel lonely, and influencing others can also be hard. This puts people in a tough bind.

Challenging the status quo with friends and colleagues, educating seniors on how their lifelong habits aren't very sustainable, and convincing family members to take on more eco-friendly habits—each of these situations can become a minefield of arguments and unhappiness.

"Yeah. Yeah. I've tried [talking about sustainability]! Definitely. Friends, family, you know, even a simple comment, people will say, 'Oh you're being critical, you being negative.' That *is* the state of affairs, right?"

R20, medium level of sustainability knowledge

4. Truth Security ✓

How do we know what to believe?

There are so many reports of brands caught lying about their sustainability efforts, which creates a mood of skepticism and distrust.

Without a stable base of reliable information, it can be disorienting for those who don't know much about sustainability. For the discerning, it is also tiring to constantly have to fact-check claims.

"There's a lot of brand examples where you don't know what to think about [them]. 'Eco-friendly' [has] been thrown around [a lot], especially with regard to packaging."

R31, high level of sustainability knowledge

Background: Keri Oberly, Patagonia

5. Existential Security

Many brands appeal for us to "Save the Earth", when, in fact, we face a greater risk as a human race. Some worry about whether living conditions will deteriorate enough to make it hard for us to survive on this planet.

People who are well-informed about sustainability have an increased sensitivity to this, and are much more willing to make major changes to their lives as a result.

"I guess for us in Singapore, we don't feel [climate change] as much, and we, I guess we do observe some effects of it, like the rain is getting colder. There's more flash, flash these kinds of things, but it's not I guess, serious enough [compared to what other countries experience]."

R8, low level of sustainability knowledge

Background: Unsplash

Security through Progress and Harmony

So far, Singapore has met its Financial, Lifestyle, Relational, and Truth Security Needs **by chasing economic progress and fostering harmony within and beyond its shores.**

Singaporeans have worked hard, focused on education and infrastructure, and sold exports to other countries. The country threw its lot in with hard work, constant striving, and meritocracy. This has made Singapore prosperous and secure, meeting the needs of many Singaporeans and their families.

At the same time, Singapore has adopted multicultural policies and a neutral diplomatic stance to lower the odds of social and international conflict.

Success in Singapore is often defined in terms of economic progress and being well-regarded socially. Source: HR Asia (2019), "The Evolving Definition of the Five Cs of Singapore."

The Limits to Growth

But it has also become clear that the world's economy cannot keep growing forever.

The recent Intergovernmental Panel on Climate Change (IPCC) report warned that it's our last chance to make drastic emissions cuts within 5 years, or the world will get at least 1.5C hotter (see right).[1]

Another study by scientific journal *Nature* said that we've already crossed 7 of the 8 planetary boundaries that help create a "safe and just world".[2]

Like everyone else, Singaporeans need to urgently protect our Existential Security. This means changing how we've met our other security needs in the past to put sustainability first—a tough process that brings tension and challenges.

Scientists deliver 'final warning' on climate crisis: act now or it's too late

IPCC report says only swift and drastic action can avert irrevocable damage to world

● **Analysis: Humanity at the crossroads**
● **Timeline: The IPCC's reports**

📷 1.5C above pre-industrial levels is the threshold beyond which our damage to the climate will rapidly become irreversible. Photograph: Janez Volmajer/Alamy

[1] *Harvey, Fiona, "Scientists deliver 'final warning' on climate crisis: act now or it's too late." Guardian, March 20, 2023.*
[2] *Steffen et. al., "Planetary boundaries: Guiding human development on a changing planet." Nature 345, no. 6223 (2015): 1259855, 1–10.*

How Do We Rebalance Our Security Needs Against Sustainability?

8 Levers for Sustainable Change

To make the world sustainable, we need change to happen at all levels. Given the urgency of climate change, we need everyone—businesses, government, civic society, and people—to do their part.

As we move ever closer to planetary boundaries, it's becoming clear that the old ways of working and living are no longer working. Still, we also need simple, practical steps that people and organisations can do each day.

This is why our 8 Levers are divided into 2 categories:

1. Immediate Levers
2. Long-Term Levers

8 Levers for Sustainable Change

Immediate Levers

Insights

1. What's In It For Me?
2. Our Places Shape Our Choices
3. Living in a Bubble
4. More Knowledge Isn't Always Better
5. Sustainability Has Trust Issues

Provocations

1. Show How Sustainability Meets Our 5 Security Needs
2. Set Sustainability As the Default
3. Rewild the Island and Ourselves
4. Tailor Strategies to Different Knowledge Levels
5. Goodbye Greenwashing, Hello Integrity

Long-Term Levers

Insights

6. Green Talk Risks Conflict
7. The Tension Between Growth and Green
8. Sustainability Seen As "Anti-Progress"

Provocations

6. Learn How to Hold Difficult Conversations
7. Explore a World where We Choose Green over Growth
8. A New Definition of Happiness, Prosperity & Progress

8 Levers for Sustainable Change

Immediate Levers ———————— **Long-Term Levers**

Our Current System

1. **Show How Sustainability Meets Our 5 Security Needs**

2. **Set Sustainability As the Default**

3. **Rewild the Island and Ourselves**

4. **Tailor Strategies to Different Knowledge Levels**

5. **Goodbye Greenwashing, Hello Integrity**

6. **Learn How to Hold Difficult Conversations**

7. **Explore a World where We Choose Green over Growth**

8. **A New Definition of Happiness, Prosperity & Progress**

8 Levers for Sustainable Change

These 8 Levers are drawn from our survey, interviews, and home visits. Together, they show how Singaporeans balance their security needs against the need for a liveable planet.

Each Point has 3 parts:

INSIGHT	PROVOCATION	SUGGESTION
Key learnings from the data, which ground our observations in Singaporeans' lived experiences.	The challenge that organisations must meet to help make meaningful sustainable change happen.	Concrete steps for all stakeholders—public sector, business, and community—to play their part in pursuing sustainable change.

The 5 Immediate Levers

1. What's In It For Me?	Sustainability efforts must meet pragmatic concerns about efficiency, convenience, and cost.
2. Our Places Shape Our Choices	Sustainability signals and choices in our immediate environments are powerful levers for behaviour change.
3. Living in a Bubble	Insulated from nature and its destruction, some see sustainability as less relevant and important than it is.
4. More Knowledge Isn't Always Better	Skepticism, overestimated impact, and mismatched values stand between sustainability knowledge & change.
5. Sustainability Has Trust Issues	Communicating effectively about sustainability builds trust, as long as organisations do what they say they do.

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1. What's In It For Me?

Sustainability efforts must meet pragmatic concerns about efficiency, convenience, and cost.

Pragmatic concerns about efficiency, convenience, and cost frame how Singaporeans view sustainability.

The Singapore Story has made many Singaporeans try to get the most value out of the least amount of time, energy, or money spent. Our survey found that **convenience and ease** were the most important considerations when buying goods and services.

Respondents also liked purchases and actions that make things easy and save time, and especially valued **getting a good dea**l on things (e.g. finding treasure in a thrift store).

"If [sustainability] can be convenient and it can be cheaper and effective, I don't see why not [...] If it happens to save the environment, so be it."

R20, medium level of sustainability knowledge

"If something is too hard I won't do it, but if [it's] something that I perceive [takes] almost like negligible effort then there's no reason not to do it, especially if I see that it's important."

R33, medium level of sustainability knowledge

Saving resources and reducing waste are seen as important benefits.

This pragmatic mindset, encouraged by government initiatives to avoid wasting food and water, leads people to **try hard not to waste resources**—and feel guilt when they do.

Respondents thought this was especially important for older Singaporeans, who remember a time when things were harder to get.

"Because wastage is not very good lah. I mean, cause we, we really make hard for living right. Then if you waste the food, then you feel that: 'Aiya. Why? Why you have to take things for granted or something.' "

R19, low level of sustainability knowledge

Saving resources and reducing waste are seen as important benefits.
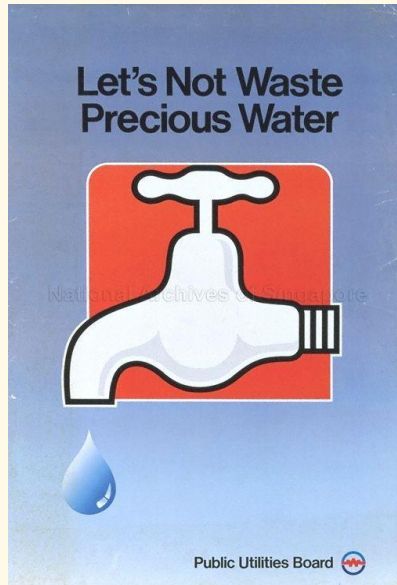
Government posters on the need to minimise food and water waste. (Sources: National Environment Agency [left], National Archives of Singapore [right])

Old newspapers and magazines spread on dining table for easy cleanup. R20, medium level of sustainability knowledge

Our sustainable future isn't easy to balance against our need for financial and lifestyle security.

Respondents who don't know much about sustainability—and even some who do—think it costs extra money but doesn't really benefit them. This makes sustainable change seem impractical once it gets "too expensive" or "too inconvenient".

This leads them to focus on their own lives and what they want now.

Climate change is seen as something that will happen later, so they don't feel the need to change their actions too much to fix it.

"I do care [about sustainability]. But at the same time, like I said, it depends on how much effort and how much money it costs me. If it's too much effort and money, I will be like, no, I'm not [doing the sustainable thing]."

R13, high level of sustainability knowledge

"At the pace we are running, I don't think our generation is going to feel the effects of [climate change], it is probably the next."

R28, low level of sustainability knowledge

Show how sustainability meets our 5 security needs.

Organisations that talk about saving the earth or how bad the environment is getting might be missing the point. The most effective way to change what people do is to address what matters to them.

Respondents cared a lot about getting to **"win-win" outcomes**: sustainable things and actions that are good for them and that also benefit the environment without costing too much. The most effective sustainability initiatives cost little but also give benefits such as **being healthy, staying clean, lasting a long time, and being special to people**.

This beats easy actions with low impact (e.g. single-stream recycling, tree-planting). Some of these win-win initiatives even show how sustainability can be *better* for us than our usual choices.

> "I like it especially when brands have quality products, but are also sustainable. Then it's like a no-brainer."

R33, medium level of sustainability knowledge

> "Convenience is important to me and I don't want to make [being sustainable] too inconvenient. It has to feel like I am not being punished too hard for doing this."

R30, high level of sustainability knowledge

Personal benefits, such as hygiene, improved health and social validation, motivate sustainable behaviour.

"My wife doesn't like second-hand. She's more concerned about hygiene [when it comes to thrifting for clothes]. For me, I'm okay actually."

R10, low level of sustainability knowledge

"I have asthma, this sounds like a selfish need but it's at the top of my head for one thing about the environment that can help me."

R26, medium level of sustainability knowledge

"Humans are altruistic, but you are a lot more attracted when there is something in it for you, or you feel that it is a good thing to do, or you will get social proof by other people, and there is some benefit."

R30, high level of sustainability knowledge

"I will bring my own container, my family as well. If we use [takeaway plastic containers] to put food items when it's hot, actually the plastic materials and chemicals will go into the food, which will negatively impact our bodies as well."

R9, low level of sustainability knowledge

Public Sector

- Show how sustainable actions are good for people when getting them to adopt them

- Encourage career growth and up-skilling in sustainability industries and jobs—a growth market that adds to people's financial security

- Subsidise sustainable products and industries to make them more affordable for the average person

- Explore policies that make sustainable goods and services the default or more widely available

> "I don't go out of the way to find such products, but if side by side wouldn't mind giving the more sustainable product a try."

R24, medium level of sustainability knowledge

> "The biggest levers would be if the common everyday brands that we see in the supermarket make the change and create default options that are sustainable for everyday consumers."

R31, high level of sustainability knowledge

Businesses

- Talk about how making the eco-friendly choice can make people's lives better, and explain why it's worth the money and effort

- Explore ways to make sustainable behaviours bring extra benefit for consumers (e.g. discounts, special rewards)

- Prioritise simplicity, clarity, ease, and accessibility in communicating and implementing sustainability initiatives

"Sustainable packaging is still seen as a premium. Plastic is damn cheap. As a consumer, if Grab or Food Panda has a sustainable packaging option, would you choose it for 20c more? It wouldn't be difficult for me to do and just pay."

R30, high level of sustainability knowledge

"Those goods that are eco-friendly tend to be more expensive, because you want to make sure it lasts long term."

R27, low level of sustainability knowledge

53

All-in-one Appliance Subscription

Subscribe to latest household appliances without worrying about delivery, set-up, maintenance, repair or recycling.

HOW IT WORKS

Levande, a home appliance subscription platform by Electrolux, highlights how their service benefits consumers before talking about how it helps the environment.
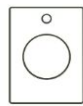
hing machines   Washer dryers   Dryers   Dishwashers   Refrigerators   Vacuum cleaners   Air purifiers

SHOP   SHOP   SHOP   SHOP   SHOP   SHOP   SHOP

54

SUGGESTION
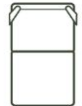
Communities

- Reveal the costs of unsustainable actions and decisions to other stakeholders in the ecosystem—and connect them back to the individual consumer

- Explore gamification with tangible rewards as a way to encourage sustainable behaviour change

"If, say, you're an MNC and you choose Singapore as your base of operations. Your production is obviously not in Singapore because it's expensive. It's probably a sweatshop in [a third world country], wherever there's cost efficiency. That alone is exploitative, so it will not be sustainable. Not just for the environment but the workforce."

R20, medium level of sustainability knowledge

PUBLIC PLAY▶

GAME DESIGN FOR PUBLIC SERVICES

DRIVING USER BEHAVIOUR AND SERVICE ENGAGEMENT THROUGH GAMIFICATION

Making sustainable action fun and rewarding.

susGain is a rewards-based engagement app to drive sustainable behavioural change within communities.

Download on the **App Store**

GET IT ON **Google Play**

PUBLIC, an European government-focused tech company, published a report exploring gamification as a tool for civic engagement.

susGain is a Singaporean BCorp that gamifies sustainable impact.

2. Our Places Shape Our Choices

Sustainability signals and choices in our immediate environments can be powerful levers for behaviour change.

Immediate environments can be powerful levers for behaviour change.

Our habits are often shaped by the places we spend the most time in, like our homes, workplaces, and public spaces.

If sustainable options like using a reusable water bottle or coffee cup aren't available where you live or work, it can feel frustrating. Going out of one's way to find these sustainable choices can make people less likely to choose them.

How we present sustainable infrastructure also matters. For instance, if recycling bins look just like regular trash bins or are clearly mixed up with food waste, this makes people think that the organisations providing this infrastructure do not care about sustainability—so why should they?
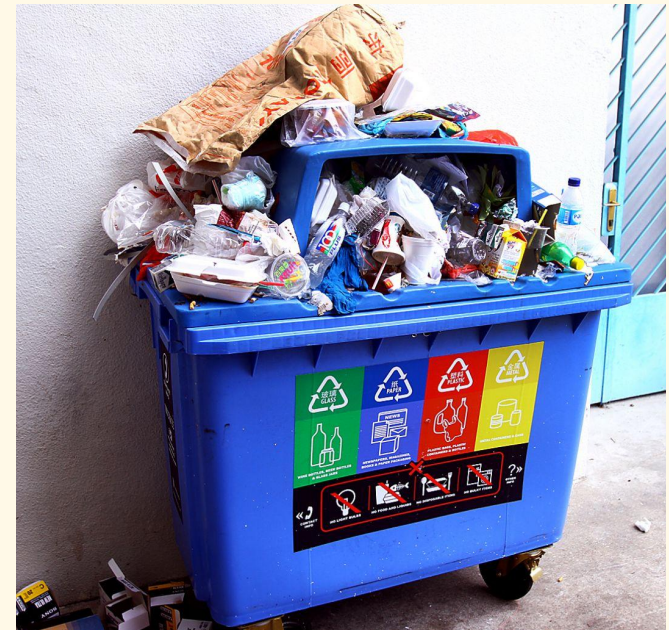
Image source: Littering in Singapore (2017).

Immediate environments can be powerful levers for behaviour change.

"It's easy cause my family has this habit of recycling. So it's not just me alone that does it... We have an area set aside in the kitchen where we put all the things we want to recycle. Then we'll bring them down in a recycling bag."

R18, low level of sustainability knowledge

"The coffee place opposite my work place offer lids as a self-help, and I don't require a lid when I take away back to office."

R29, low level of sustainability knowledge

Designated recycling areas and containers at home. R29, low level of sustainability knowledge

59

Set sustainability as the default.

To get more people to make sustainable choices, we need to make the good options easy to find and use.

Placing reminders or helpful cues in our everyday spaces, such as reusable plastic bags by the front door, can remind us to make better choices for the environment—and can even start conversations with others about it.

We can go one step further to make sustainable design a normal part of our everyday lives. For example, creating special bike lanes and showers in workplaces may take time, energy, and funds to build, but these changes will eventually encourage more people to bike instead of using cars.

"She would be very happy to use deposit containers when she go for groceries, but the drop-off need to be conveniently located in the supermarket."

R6, medium level of sustainability knowledge

"Reusable containers if it can be [...] readily available, readily deposited in areas around the island, reduces the effort of getting your own box, washing your own box, bringing your own box. [...] it's about accessibility and convenience."

R33, medium level of sustainability knowledge

Set sustainability as the default.

Muuse is a free borrow-and-return reusable food box and silver cup system available in Singapore, Hong Kong, & Toronto that tracks every reusable container with a unique QR code and tabulates users' impact.

ReCups in Germany asks for a one Euro deposit, which customers get back when returning them at any partner location. A ReCup saves up to 1,000 disposable cups over its lifetime. (Image source: Kenneth Wee, 2023)

Public Sector

- Make sustainability the default choice when designing and retrofitting infrastructure

- Keep local contexts and considerations in mind when designing sustainability messaging and nudges

- Create policies and initiatives that encourage sustainable behaviour beyond the 3 Rs (e.g. repair stations in heartland neighbourhoods, swapping events in communities)

> "I walk past the recycling thing on my level every day, so that has actually prompted me to try to recycle a bit, because it's really not much of an effort for me at all."

R17, low level of sustainability knowledge

> "HPB Healthy 365 and 10,000 Steps advertisements are everywhere at bus stops and MRT so it's hard to miss […] If the government does the same for sustainability people will subconsciously [do it] without trying [to] gain some awareness."

R7, low level of sustainability knowledge

Businesses

- Promote sustainable workplace habits that save on costs or bring productivity benefits (e.g. hiring a barista or providing reusable cups increases morale and frees up more time for focused work)

- Explore how product features, marketing, and placement may help encourage sustainable behaviour

- Redesign products and services to use less packaging (e.g. reducing plastic-wrapped produce, using paper instead of plastic bags)

"[At the company I interned at] they were very big on sustainability, and it was just something that was very big in their whole company. [...] Everybody in that company, whenever we had lunch we would try to eat at the hawkers [...] I think it was very much a practice there, which was what made me, like, get more interested in it."

R14, medium level of sustainability knowledge

63

Local clothing brand Cloop runs pop-up fashion swaps, open wardrobe thrift shops, and even a curated personal shopping bag service, to promote circular fashion.

Image: Cloop.

SUGGESTION

Communities

- Collaborate with government bodies and consumer-facing businesses on sustainability in product design and placemaking

- Offer tips for families that involve introducing sustainability to the home environment while providing tangible benefits

- Consider how engagement programmes may fit into consumers' daily lives and lived environments (e.g. swapping events in community spaces)

Design > Interior Design > Interior Design

Use Eco-friendly, Sustainable Design to Improve your Life

Save Money and Live Healthier through Eco-Friendly Interior Design

4.4 ★★★★½ (735 ratings) 4,173 students

Created by Erikka Fogleman

⊕ Last updated 11/2021   🌐 English   ⊟ English

What you'll learn

✓ Learn how to save money in the areas of energy, water, and lighting for your home

✓ Be able to explain the difference between eco-friendly and sustainable interior design

✓ Be able to make green selections for all the finishes of your home (e.g., floors, walls, kitchen)

✓ Learn where to source green finishes and furnishings for your home

✓ For design professionals, learn about green certifications/accreditations available to you

✓ Improve your indoor air quality by choosing green finishes and furnishings for your home

✓ Understand and apply the main principles of green interior design to your own home

✓ Be able to make green selections for all types of furnishings in your home (e.g., furniture, textiles, accessories)

✓ Create your own residential eco-friendly interior design plan

Erikka Fogleman (2021),
"Use Eco-friendly, Sustainable Design
to Improve Your Life"
Udemy course.

65

3. Living In A Bubble

Insulated from nature and its destruction, some see sustainability as less relevant and important than it is.

Busy lives and curated urban garden spaces disconnect people from real nature.

Many Singaporeans are far removed from nature for several reasons. Busy, stressful lives make it hard to connect with the natural world, and we often focus only on our families, colleagues, and ourselves.

Even though Singapore is known as the Garden City, its clean and tidy green spaces, like parks, can hide the actual harm we're causing to the environment.

Some people with less knowledge have a "not in my lifetime" mindset towards nature and its destruction, discouraging their involvement in sustainable change.

"You know the effects of sustainability but you don't need to do it to survive, like work or breathe."

R1, high level of sustainability knowledge

"At the pace we are running, I don't think our generation is going to feel the effects of it, it is probably the next [...] so to put it bluntly, it's not my problem."

R28, low level of sustainability knowledge

Privilege plays a big part in creating this bubble.

Air conditioning in wealthier households and white-collar workplaces insulates people from extreme weather and its relationship to our carbon emissions. Low-income foreign workers clean our streets and sort our trash, hiding the true amount of waste and trash we create.

Sublime experiences of nature and exposure to more sustainable societies typically require the ability to afford overseas travel.

"Cause you don't really see a lot of, it's not dirty. You don't see a lot of waste on the ground."

R19, low level of sustainability knowledge

"I mean, we live in HDB flats and private properties and all that. How much of the natural world can you see being devastated?"

R20, medium level of sustainability knowledge

Rewild the island and ourselves.

From "Garden City" to "City in Nature"

While bursting the bubble through education and communications seems logical, this also risks causing hopelessness, rejection, and denial.

Cultivating reconnection with and deep appreciation for nature in our society—including communicating the real state of its destruction—needs to create a sense of empowerment and purpose for citizens to find their roles in the sustainability movement.

"They were talking about Dover East that they are cutting down. There are people in Singapore, a minority, that actually appreciate wilderness in nature, and I think that is very sad."

R22, high level of sustainability knowledge

"[I] wish that all forests will get restored to rainforests. Make cities livable without cutting down trees. Because there is a direct obvious impact on environment, keep habitats of wild animals, lower temperature."

R25, medium level of sustainability knowledge

Befriending nature and strengthening our emotional connection with it is a key step to sustainable change.

"Everyone knows, even my nephew and niece, that the climate is getting hotter. What we need is not just awareness but some kind of emotional impact."

R1, high level of sustainability knowledge

"How do we bring wilderness to the Singaporean psyche? How do you 'do' wilderness? There's a lack of appreciation for the sounds of nature. At the treetops, people were blasting dance music in the area that's supposed to be for birds. Like a party zone among trees."

R22, high level of sustainability knowledge

"I am probably more minimalist or less materialistic than most people... because I used to backpack and travel quite a bit as a teenager and in my early 20s, most of it is in nature and outdoors. You are limited to what you can carry, you have to bring your trash home and you learn about not leaving things behind in the environment."

R30, high level of sustainability knowledge

Public Sector

- Continue rewilding initiatives to help native biodiversity and communicate the shift towards a "City in Nature"

- Highlight stories of bold sustainability change that bring people closer to nature without threatening lifestyles (e.g. Star Vista and Tzu Chi Humanistic Youth Centre as naturally cooled multi-use spaces)

- Fund sustainable redesigns of the lived environment at every level (architectural and civic)

- Communicate and prompt empathy for regional experiences of climate change beyond Singapore

- Encourage participatory co-creation around sustainability, which exposes people to macro issues and the messiness of policy-making while increasing ownership and involvement

Local agency Participate In Design uses pop-up activations to involve communities in co-creating their neighbourhoods

Rewild the island and ourselves.

Star Vista, Singapore's first naturally ventilated mall, in Buona Vista (Image source: Rostek)

Naturally ventilated community space at Tzu Chi Humanistic Youth Centre, in Yishun (Image source: Archify Now)

Businesses

- Make the environmental costs of unsustainable habits and practices explicit and relatable in branding, communications, and packaging

- Provide more ways for people to see how greener products are made and appreciate the impact they have (e.g. educational tours)

- Use your brand to provide a platform for local sustainability efforts, people, and communities

Singaporean agency Synthesis held a data visualisation challenge around consumers' sustainability needs in 2021, raising awareness of local green organisations

Communities

- Design sustainability engagements that promote a close relationship with nature and our impact on it (e.g. guided sustainability tours around natural or lived environments)

- Connect people, communities, and organisations doing sustainability work with one another, to strengthen environmentalist networks and help people feel less alone

- Use engagement programmes that fit into consumers' daily lives and environments to show them the sustainability efforts around them (e.g. swapping events in community spaces)
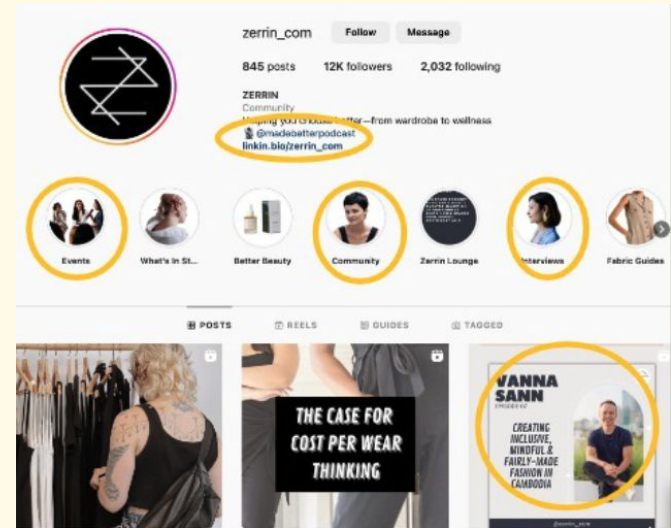
Local content platform Zerrin surfaces and supports sustainable fashion brands, creatives, and advocates based in Singapore.

The year is 2050.

We have successfully avoided the worst effects of climate change.

To do that, we had to make big changes to how we live, work and play.

The multiple global crises of 2020 were a wake-up call for governments and communities, and it spurred us on to come together and make transformative changes. We stopped using fossil fuels, and now rely entirely on renewable energy—a key pillar in our economy. We no longer measure Singapore's success through GDP growth; instead we place value on things that really matter, like happiness, health, and equality for everyone, citizens and non-citizens alike.

We have built a new relationship with nature that is not ~~~ and destroying, but rather about balance and life.

30 years ago, we made a stand to take back our future. Because of that, today we are a dynamic nation, an island state filled with hope and opportunities. Today, we are proud to call Singapore home.

Image source:
SG Climate Rally

Climate group SG Climate Rally asked Singaporeans to image a more sustainable society 30 years into the future, and share their visions on social media.

75

Local sustainability organisation Green Nudge runs guided neighbourhood environmental tours that show the impacts of our habits and sustainability infrastructure

Image source: Kenneth Wee (2023)

4. More Knowledge Isn't Always Better

Skepticism, overestimated impact, and mismatched values stand between sustainability knowledge and change.

Knowing a lot about sustainability's systemic challenges can lead to defeatism and disengagement.

A common assumption is that knowing more about sustainable change leads to doing it more. While this may be true for some, it doesn't always work that way.

Respondents who know a lot about sustainability are willing to dig deep and change how they do things to help. But many grow frustrated and defeated as they learn more about how big companies and governments aren't doing enough at a systemic level.

This leads them to feel suspicious of greenwashing, profit maximisation, and poor sustainability infrastructure. Some start to feel like their efforts don't matter, and they give up trying.

"Why should I recycle when I know that this doesn't get recycled? Right? Doesn't make sense, right? The blue bin there, when you walk up it's there—it doesn't get recycled!"

R20, medium level of sustainability knowledge

"If companies are going to greenwash and lie about how carbon credits are working, why should we pay for [sustainable products] when I should save my money for when I need to buy a boat to live on."

R22, high level of sustainability knowledge

Moderate sustainability knowledge leads some to think they're making a bigger impact than they really are.

Many respondents with medium and low sustainability knowledge—in other words, most Singaporeans—think of sustainability as a matter of individual consumption habits and green efforts.

This leads them to do things like recycling or planting trees, but they may not realise that bigger changes are needed to truly shift the system. Often, they are busy and think they know and do enough, so they don't look deeper into the problem.

In this case, educating people about sustainability is a double-edged sword. Too little, and their actions are ineffective. Too much, and they may get jaded and abandon the cause.

> "So I think especially even in Singapore, we put in a lot of effort in order to plant trees to ensure that in every estate there's a certain amount of greeneries."

R17, low level of sustainability knowledge

> "If every country would follow Singapore's example [on sustainability] then it would be great."

R20, medium level of sustainability knowledge

Those who know little about sustainability tend to see it as a lower priority than their personal needs.

They feel sustainable change will take away from their own lifestyles and money, and see helping the environment as a choice they don't need to make.

This leads them to prioritise convenience and saving money above everything else. Lacking the support and encouragement needed to change their behaviour, they downplay the potential impact of their actions.

It doesn't help that a lot of sustainability talk seems too effortful to understand—even if some are willing to learn and do more as they feel climate change getting worse.

"I tried using Olio earlier to give away the things that I don't want previously, but then people take very long to respond, so that's why I felt it was easier to just throw away."

R18, low level of sustainability knowledge

"In order to know how I can impact the environment, I need to understand the different ways in how I can engage in sustainability. As my current understanding is limited, it may not be the best way to go. [...] You may be efficient but you do not produce the desired results, and that kind of misses the whole purpose."

R27, low level of sustainability knowledge

Tailor strategies to different knowledge levels

There is no single communications strategy that will work for all audiences.

For those who know a lot about sustainability, **building trust by showing them evidence of real action** can help—as well as **connecting them with others who are passionate about sustainability**. Governments and businesses can both share more information and data around their efforts and impact.

For those who don't know or care much about sustainability, **making sustainable change easy and relevant to their lives** can make a big difference. This can look like involving people in helpful projects and showing how they can make an impact, or emphasising small changes that benefit both the environment and themselves.
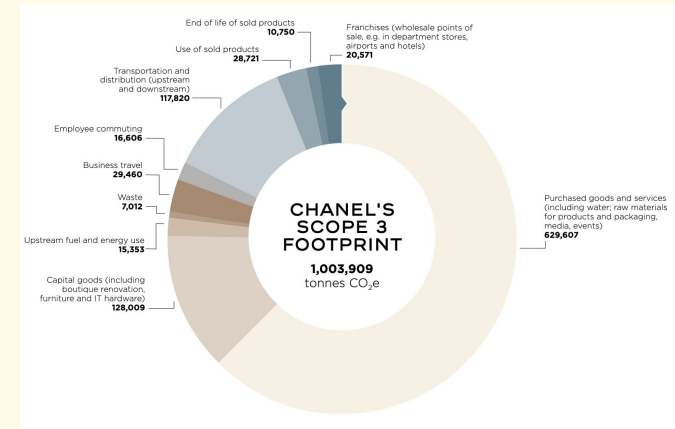
Chanel's <u>sustainability report</u> *describes its carbon footprint in painstaking detail, demonstrating data transparency and accountability.*

Public Sector

- Share more information about what's being done behind the scenes, including dialogues, processes, and data. This can happen through media and outreach efforts *(High Knowledge)*

- Get people involved in projects that help the environment by showing how it helps them personally, such as growing your own fresh produce without pesticides *(Medium Knowledge)*

- Plan sustainability projects for government workers that prioritise impact and engagement over ease

Singapore's National Parks distributed 860,000 seed packets in a successful push to encourage residents to grow edible greens at home.

Businesses

- Clearly explain to customers how sustainability practices help a business's bottom line (*High Knowledge*)

- Share transparent impact assessments by trusted third parties and take responsibility for areas where the business needs to improve, instead of pretending to do better (*High Knowledge*)

- Get consumers involved in taking care of the environment (e.g. workshops for learning how to fix products and designing sustainable products) (*Medium Knowledge*)

- Teach customers about sustainability as they're using the business's products and services (*Low, Medium Knowledge*)
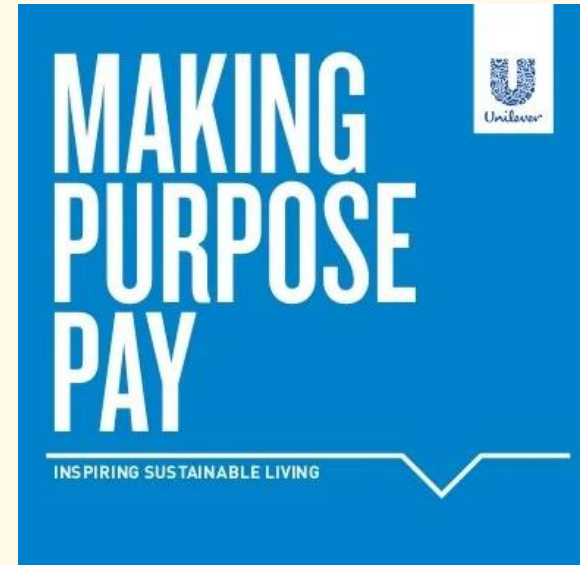
Unilever's Sustainable Living Brands are growing 69% faster than the rest of the business and delivering 75% of the company's growth.

ESPLAR & DIACONIA
Advises and helps producers

Production
Local producers
Amazonian rubber is harvested

Production
13 associations
The cotton is planted and harvested

PERU

BRAZIL

CHINCHA VALLEY

Production / Spinning
Bergman Rivera
The cotton is planted, harvested and transformed into yarm

BOLIVIA

Spinning
The cotton is transformed into yarn

AMERICANA

JUNDIAI

PARAGUAY

French footwear brand Veja uses data visualisation to communicate transparency and traceability to consumers in a clean and easily readable way.

Manufacturing
Assembly plant near Porto Alegre
The canvas becomes sneaker uppers

Weaving
The yarn is woven into fabrics that become the canvas of sneakers

ARGENTINA

84

Fashion brand Kering hosted a "Hack to Act" hackathon in Paris in 2019, bringing 80 tech professionals together to apply technology to sustainability issues.
Source: Spencer (2019), "Kering Awards 'Core' Project at Its First Sustainable Luxury Hackathon."

SUGGESTION

Communities

- Design different engagement programmes for people with different knowledge levels

- Create opportunities for people interested in sustainability to come together, encourage one another, and collaborate on projects (High Knowledge)

- Find ways to make it easy for people to take part in projects that help the environment in their daily lives (Low, Medium Knowledge)

"When I see someone of similar age who is so passionate about [sustainability], I come to reflect on myself, like what have I been doing in my life. If they have reached a certain maturity level, what is stopping me from reaching that level."

R27, low level of sustainability knowledge

5. Sustainability Has Trust Issues

Communicating effectively about sustainability builds trust, as long as organisations do what they say they do.
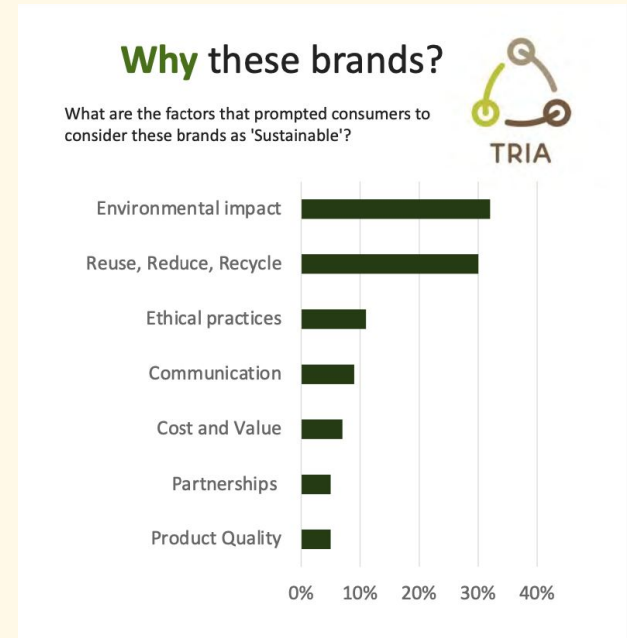
Consumers see businesses and brands as major players in sustainable change.

In our survey, just over 50% of respondents saw sustainability as referring to eco-friendly businesses—more than 5x the number of respondents who saw it as being about conscious living (just under 10%).

Whether a business is sustainable came down to its environmental impact and adopting the 3 R's (Reduce, Reuse, Recycle). In food brands, packaging—and specifically, material composition—was the sustainability trait customers looked out for most (around 38%).

These show that **people care about the actual, material practices that companies adopt**—especially those that directly impact the environment.

Why these brands?

What are the factors that prompted consumers to consider these brands as 'Sustainable'?

TRIA

- Environmental impact
- Reuse, Reduce, Recycle
- Ethical practices
- Communication
- Cost and Value
- Partnerships
- Product Quality

0%   10%   20%   30%   40%

Results from TRIA x NTU SPAN quantitative survey (2023)

88

But most consumers are only looking for simple assurances of sustainability.

On average, **most consumers are less concerned about the details than the assurance that the companies they support are doing something right**.

When asked about the packaging factors that showed how sustainable a brand is, respondents rated all 9 factors (a wide range from recycled materials to edible packaging) between 5.61 and 5.89 on a 7 point scale.

Similarly, respondents said they would pay between 10.5% and 12% more for food products from companies across a wide range of sustainability initiatives, from using clean energy to supporting social causes to using reusable/compostable/edible packaging.

11.19% Increase in the product price

If a company participates in **sustainability initiatives,** compared to a company that does not

Results from TRIA x NTU SPAN quantitative survey (2023)

Most people prefer sustainability labels and marks, as diving deep into brands' claims can feel overwhelming.

This may be because s**ustainability is already a complicated word and concept**—and it covers a huge range of things.

For the average person with low-to-medium knowledge of sustainability, big words and complex explanations from brands can make it hard to figure out what they are saying.

Since most people already feel overwhelmed in a sea of information, they may ignore these explanations or focus on simple touchpoints, such as green labels and keywords.

Many companies thus prefer using terms like 'eco-friendly' to show that they are sustainable. Some people, especially those less informed about sustainability, may believe these right away.

"When a particular company claims that it is made out of 100% recycled cotton, etc. It is hard to know if the claim is true so I just disregard that; that it is not an important factor for me to decide."

R26, medium level of sustainability knowledge

"For eco-friendly, it's easy to just stamp onto products."

R23, high level of sustainability knowledge

However, not everyone knows how to tell a trustworthy label from a greenwashed one.

This means that people may not pick up on a company's greenwashing attempts.

Some companies use misleading labels that claim a product is "organic" or "eco-friendly" without being held to any independent standards or checks.

Trustworthy certifications, on the other hand, are recognised globally and backed by independent organisations. They have clear criteria about what practices count as sustainable or unsustainable.

These offer a good middle ground between clear, simple communication and rigorous sustainability practices.

Misleading labels can contribute to greenwashing, whereas trustworthy certifications are more likely to be rigorously backed. Source: Mexia (2020), "How to Avoid Unintentional Greenwashing in Your Marketing."

Knowledgeable people value rigorous, evidence-based proof, but often lack the time to delve into it.

More knowledgeable consumers look for the details before they trust a company—where materials come from, how things are made, whether there is any independent proof of these claims, and so on.

Yet, although they value factual, evidence-based, and verifiable information, most simply don't have the time to research a company's practices. This leads them to feel skeptical about companies' sustainability claims, as they are wary of not being able to spot any greenwashing attempts.

Curiously, this skepticism has led some companies to avoid claiming anything about sustainability at all (greenhushing), so that they won't be called out for any failures.

"So at [an] individual level, I am quite tired, 'cause I can't have the time or energy to go through each [and] every individual thing [about a green business] to ascertain whether something's a scam or not."

R12, high level of sustainability knowledge

"So companies' claims can't be taken as true, you would need to read up and research on their history and story, etc."

R26, medium level of sustainability knowledge

Goodbye greenwashing, hello integrity.

Make your assurances count

Getting certified by independent sustainability organisations and using their labels helps people feel like they can trust a company's green efforts. It also helps to provide more detailed information in a clear and simple way, for those looking to dive deep into a brand's promises.

When companies do this, they are more likely to get people to believe in what they are doing for the Earth.

But there's a catch: **companies need to actually do what they say**, or risk people feeling like they've been tricked. Not doing so can cause a brands to lose any trust people had in it, leaving them wondering if the brand is just pretending to care.

"I see companies do greenwashing. They invited me to an event, they want to recycle stuff but after the event they call the trash company to clear all the bins."

R12, high level of sustainability knowledge

Public Sector

- Use a simple scale to show how products affect the environment, like a "Nutri-Grade" for sustainability (Low, Medium Knowledge)

- Show people how to spot companies that pretend to be sustainable when they aren't

- Support trustworthy international symbols and labels that show people that a product is good for the planet

- Legislate policies that deter companies from engaging in greenwashing

> "Sustainability rating on brands just like nutrition rating on the drinks, like they way they have it on fridges and some electronics. Because the perceived effort is low, so consumers don't need to do research, the answer is there screaming at me. For people who are really lazy, it helps."

R33, medium level of sustainability knowledge

Goodbye greenwashing, hello integrity.

The Eco-Score is supported by a consortium of many actors committed to better nutrition.
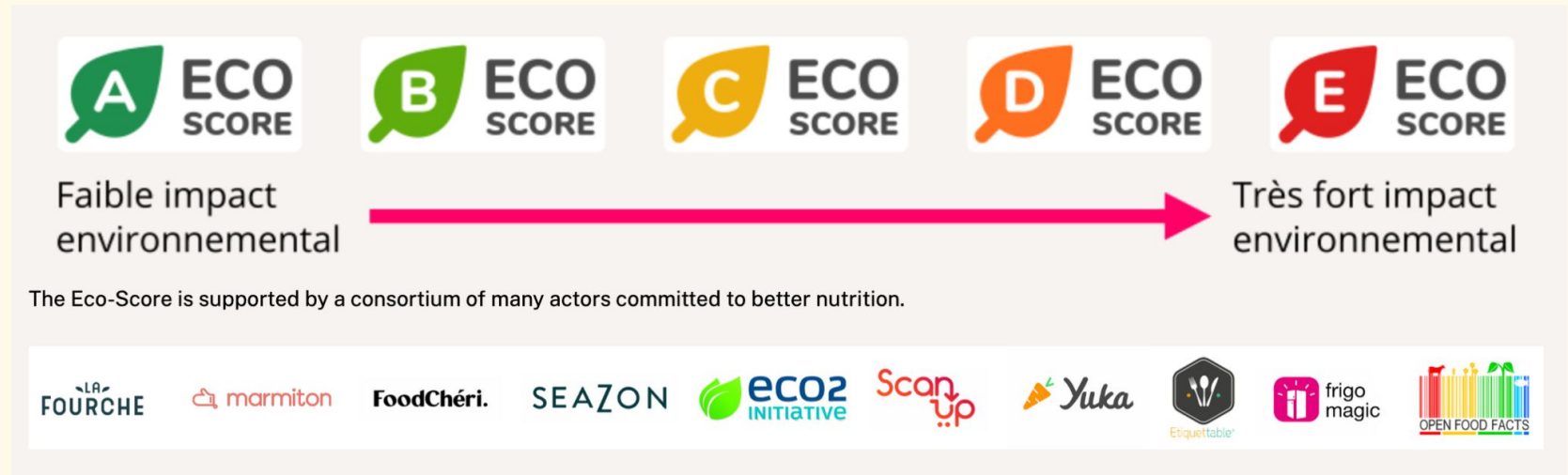
The Eco Score, designed by Open Food Facts, grades products on 15 environmental effects on a scale like the Nutri-Score
Source: Open Food Facts, "Eco-Score: the environmental impact of food products."

Businesses

- Use trusted sustainability language and labels instead of vague messaging or greenwashing

- Make sure the company is really doing what it says it's doing; do an independent environmental audit, own up to any shortcomings and change them

- Communicate sustainability in a coherent and clear way across all consumer touchpoints (web, events, etc.)

- Collaborate with other brands to share visibility and show consumers that the industry is moving towards sustainability

IKEA Singapore partnered with peer-to-peer listings platform Carousell on a rewards programme to promote the circular use of its products (July 2022–March 2023). Source: Carousell (n.d.), "Carousell x IKEA Rewards Programme."

Communities

- Make guides to help companies talk about sustainability in a better way

- Offer different levels of sustainability information for different people, from easy to advanced

- Raise awareness about global environmental accreditations and persuade organisations to get them

Though many anti-greenwashing guides exist, they tend to live on boards like Pinterest or get buried in the news, instead of being shared in local areas. Source: Lee (2015), "The Greenwashing Phenomenon."

The 3 Long-Term Levers

6. Green Talk Risks Conflict	Talking about sustainability risks disharmony by bringing up conflicting values at home and work.
7. The Tension Between Growth and Green	Capitalism's focus on growth at all costs makes it hard to justify sustainable change.
8. Sustainability Seen As "Anti-Progress"	In Singapore, sustainable change tends to run up against our ideas of happiness, prosperity, and progress.

6. Green Talk Risks Conflict

Talking about sustainability risks disharmony by bringing up conflicting values at home and work.

Talking about sustainability can spark conflict and tension in groups that don't feel the same way.

Conversations around sustainability bring up conflicting values at home and work, risking disharmony.

Not everyone sees taking care of our planet the same way. Talking about sustainability can bring up very different feelings. Some people think it's important for everyone to do it. Others think it's about personal beliefs—almost like religion.

These differences make talking about sustainability tricky at times. Keeping the peace is important to many Singaporeans—especially at home and work, where they spend the most time and play important roles.

When your family, colleagues, and friends don't care as much as you do about making the environment better, that can make talking about it hard.

"Because you don't want to come across [as] being very preachy, you cannot impose your idea on other people. It's like all the people trying to approach you at bus stop and ask you, 'Have you heard of God?'. You can't do these things, it does not work that way."

R13, high level of sustainability knowledge

100

Green talk risks conflict.

"My mom got this free three huge Coke bottles that none of us drink. I can see how it's the idea of how now we [can have] luxury. We have the privilege, let's not downsize."

R35B, high level of sustainability knowledge

"Some things [for my wedding] cannot buy second-hand, like red fans and umbrella, because it clashes with customs."

R35B, high level of sustainability knowledge

Image Source: Juxtapose Pix.

But social pressure in groups on board with sustainability can encourage sustainable behaviour.

When most people in a group care about sustainability, it can make those who care less think and act differently, too. Families and workplaces that are already do sustainable behaviours usually talk about it more and get others involved.

Sometimes, a single person can change the way others in a group think about and act on sustainable change.

"Doing things the same way helps you to feel like part of the gang, otherwise you might feel like the odd one out, or trying to be a show off. It might give off this impression."

R25, medium level of sustainability knowledge

"Most of my family practises being a vegetarian so it wasn't difficult to make this decision; always had vegetarian food at home."

R21, high level of sustainability knowledge

But social pressure in groups on board with sustainability can encourage sustainable behaviour.

"You are supposed to comply because [these sustainability standards are] in line with the company goals of 2030 [...] Sometimes it does create a permanent habit change for you. Because if you're already doing it at work, then why not in your personal time as well."

R17, low level of sustainability knowledge

"They don't really, my parents are boomers. They're above 70 years old. They were [doing things] a certain way because it was just convenient. But then now that they understand more my thinking, they also try to change in small ways. My father has this habit of just throwing away a lot of things, which I disagree a lot of the time on. But then sometimes it's also true that sorting things out is also very stressful."

R12, high level of sustainability knowledge

"Social influence aspect of it makes you more mindful when you're not inclined to be. There's groupthink. If one person is mindful by themselves, it doesn't make that much of an impact, because that person can just [sometimes] not be, because everyone else is not. But if everyone else is doing it, it makes the transition better, there's that facilitation of intention."

R33, medium level of sustainability knowledge

Learn (and teach) how to start and hold difficult conversations about sustainability.

Having the **skills needed to start and hold conversations about our different values around sustainability** helps those who don't know or care much about it better understand why it is important.

If we don't learn how to start and hold these conversations well, talking more about sustainability may just make people more frustrated or pretend that everything is okay.

"I just discussed it with my parents one day and then they were like, 'Okay, yes, let's try to cut down on plastic bag use.' So we just cut down plastic bag use. I'm the one in the family that cares about the world and other things outside of my immediate life."

R12, high level of sustainability knowledge

"The bakery auntie who puts all the breads into separate bags... she is a high value target. You change her mind, you save a lot of plastic bags. Like, you tell her put 2 buns into 1 plastic bag, but she will say 'No, no, no, put already.'"

R30, high level of sustainability knowledge

"To my husband it's like, 'Oh, I only do it because you tell me to. But I don't really actually care about recycling.'"

R31, high level of sustainability knowledge

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Public Sector

- Create facilitation guides and train people to talk about sustainability at home and work

- Communicate that helping the planet is something we do together, not just alone

- Ask important leaders in government and industry to talk about how they do sustainability, so others can learn from them

- Start teaching sustainable ideas and actions to students from preschool to university, and promote it as a new skill for the future workforce

#TalkingClimate workshop

THE TRAINERS' GUIDE

Climate Outreach, a British NGO, created a guide, slide deck and script for running your own climate change workshop.
Source: Climate Outreach (2020), "Talking Climate Workshop Package."

Businesses

- Design moments for consumers to talk about sustainability, using packaging and ads

- Support and reward ideas that help with sustainability at work

- Make sure workers feel safe to share these ideas, too.

- Run programmes that teach and model how to talk about sustainability at work

Clever Carbon runs workshops on carbon literacy for corporate teams and offers a free conversation starter that you can paste into your team's Slack channel each week. Source: Clever Carbon (2021), "Clever Team Building."
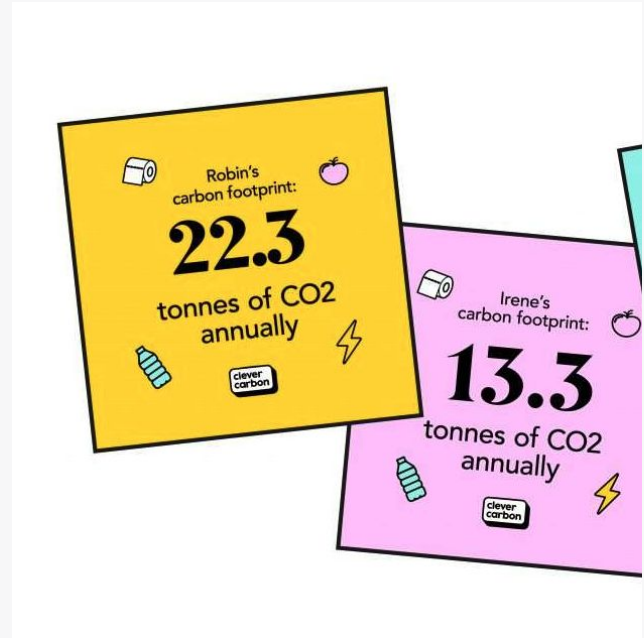
Communities

- Adapt current sustainability programmes to help families and workplaces better understand how they can make a difference

- Teach parents to talk to their kids about how we can take care of nature and its resources

- Train people on how to prepare for sustainability conversations at home and work, and how to meet others with empathy and curiosity

Advocate

Individuals who have zero or little knowledge or sustainability

- Understand Singapore's environmental landscape (including key players in th public, private and people sectors and local initiatives)
- Meet like-minded individuals within the community
- Disseminate important sustainability issues and tips to individuals through outreach

Green Nudge runs sustainability trainings pitched at organisations and people at various levels of knowledge, helping them start conversations in the communities they are part of. Green Nudge (2023), "[Training](#)."

7. The Tension Between Growth and Green

Capitalism's focus on growth at all costs makes it hard to justify sustainable change.

Capitalism's focus on growth at all costs makes it hard to justify sustainable change.

Imagine a game where the goal is to always get more and more points. That's how our society works—most of us focus on making more money and growing businesses, and the game never seems to end.

This tends to make sustainability feel like an afterthought, which isn't great for the planet. It also makes it hard for people, especially those knowledgeable about sustainability, to trust companies' motives when they say they're doing something for the Earth.

"Businesses have a lot of incentive to get people to spend more, because that's like, GDP, right? There's less emphasis on effective or efficient use of resources. It's more about how to grow, you need to be first economically, more money is more important."

R35, high level of sustainability knowledge

"Corporations can play a lot of role in it. Some companies really want to do the right thing, but they know they won't keep up with the market. There're also companies that say they are sustainable but then also lobby for the government to not regulate them."

R22, high level of sustainability knowledge

Yet, we see few alternatives to capitalism out there.

Without many good examples or stories about a world where we don't need to chase growth and money all the time, it's hard to talk about how to play a different game.

But this also means that there's a chance for brave people and organisations to show us all better ways to run businesses and societies—even though this may be hard to understand or get used to at first.

This seems like a huge ask—but actually, the bar for this is surprisingly low today. Most companies don't even think about this problem—many just want to get bigger, ignoring or hiding how they harm the environment along the way. Just asking "How can we care about the environment as much as we care about making money?" is already a big step forward.

"I think there's a difference between profiteering and running a business that provides things that are useful and are meant to last."

R22, high level of sustainability knowledge

"It's always, do you care about the world or do you want money? And that's the problem we face, where actually, if we don't have a world to live in, then what's money gonna do?"

R21, high level of sustainability knowledge

"It is now easier to imagine the end of the world than to imagine the end of capitalism."

— Fredric Jameson, *The Seeds of Time (1994)*

Explore a world where we choose green over growth.

As the world wakes up to the limits of endless growth, we need to think about truly **new ways to live and do business**.

We can start by looking at some fresh questions and ideas:

- What if companies grew just enough to keep going?

- Might we invest in companies that help the planet, even if they don't return the most money?

- Can we wait a bit longer for the things we want, if it helps the earth?

- How might we run a business cooperatively with "consumers" or even "the environment" as shareholders?

The people and organisations taking these first steps will become the paradigm leaders of tomorrow.

"[When] you become a profit-driven, shareholder-driven organisation rather than a stakeholder-driven organisation, and when [...] the only responsibility that a business has is to make profits, I think that's a huge denial of the role that [the] private sector plays in civil society."

R22, high level of sustainability knowledge

Public Sector

- Teach people how we can balance sustainability and making money (e.g. degrowth, circular businesses)

- Support research on better ways to achieve this balance, and create guidelines for businesses and people

- Support activities, spaces, and communities that help people live better without consuming more (e.g. public spaces and programming, citizen initiatives and civic movements)

- Create spaces that encourage us to slow down and focus on what is important, instead of convenience and speed for its own sake

PROPOSED ACTIONS FROM THE NEW
CIRCULAR ECONOMY ACTION PLAN IN THE EU

THE CIRCULAR ECONOMY ACTION PLAN FOR THE EU PROPOSES MEASURES TO:

Make circularity work for all people in all locations

Make sustainable products the rule, rather than the exception

Reduce levels of waste

Empower public buyers and consumers

Lead global efforts to achieve a circular economy

Focus on the sectors were circularity potential is highest, including plastics, food and electronics

www.matthewstoneblog.com

Image Source: Matthew Stone, on Pinterest.

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Businesses

- Learn about and experiment with new ways to doing business, such as regenerative business models and postcapitalist design

- Share these ideas and your efforts with others in your industry, and work on them together

- Build communities around your products that are about care and relationships rather than transactions and progress

Matt Wizinsky's Postcapitalist Design Guidelines (2022) shares prompts and examples of a new, 'post-capitalist' way to do business and make products
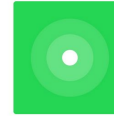
Degrowth x Project

I want to enact degrowth in my project

How might we minimize or reduce material inputs? Minimum Viable Utopias & Circular Design Degrowth x Project	**How might we work with communit... efficient processes?** Minimum Viable Utopias & Circular D... Degrowth x Project
How might we plan for efficient maintenance and repair, particularly with local resources, including knowledge and labor? Minimum Viable Utopias & Circular Design Degrowth x Project	**How might we integrate design outc... economy?** Minimum Viable Utopias & Circular D... Degrowth x Project
How might we create things or experiences to remain durable, usable, and meaningful? Minimum Viable Utopias & Circular Design Degrowth x Project	**How might we create things or expe... down, or recirculated within a comm...** Minimum Viable Utopias & Circular D... Degrowth x Project

Communities

- Look at the assumptions your organisation makes about growth and progress, and change them if they aren't helping sustainability

- Learn about how our capitalist society works and how people are coming up with better ways to do things

- Share this knowledge with your network and the people you work with each day

The Latham St. Commons Project in Pittsburgh (U.S.) redirects more than 100,000 gallons of rainwater a year to vertical farms, shares the produce with the community for free, and teaches residents about sustainability.
Source: DESIS Network (2018), "Latham St. Commons."

8. Sustainability Seen As "Anti-Progress"

In Singapore, sustainable change tends to run up against our ideas of happiness, prosperity, and progress.

Most Singaporeans still think of progress in terms of economic growth and consuming more.

Today, the Singapore Story is all about how progress leads to prosperity, which brings us happiness. We typically achieve this by working hard to buy and own more things, to live more comfortable lives.

But sustainability's message says we should use and consume less. To many Singaporeans, this doesn't fit with our nation's story; some fear that sustainability may bring too drastic change to their lifestyle, money, and relationships.

"[Singaporean consumers] feel like they can acquire a lot of resources without thinking how much they can consume. They don't have a check and balance. They hustle and want to be better than their neighbour, they're perpetually stressed, there is no end to it. How many Lamborghinis do you want to have?"

R1, high level of sustainability knowledge

"Everyone wants their kids to live a better lifestyle."

R22, high level of sustainability knowledge

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New goods, plastic packaging, and some traditions are cherished as signs of prosperity and progress.

Some respondents said that older Singaporeans still think plastic packaging shows that they can afford hygiene and buy new things.

Others look down on buying and selling second-hand goods, and while it's good to reduce waste, it can seem stingy to people used to consuming more.

Some traditional practices, such as a bride tossing red fans that symbolise her old self out of the bridal car on her wedding day, require buying new items. Others, like burning joss paper and effigies of luxury cars and other riches to send to the afterlife, are meant to signal wealth and abundance.

"My family still uses a lot of plastics. For my parents' generation, it was the sense that we can finally have new and clean things, we can finally preserve things, so it is a sign of progress. We have this kind of abundance we never had before."

R35B, high level of sustainability knowledge

We need to redefine happiness, prosperity, and progress.

For now, trends that may help the planet, such as Japanese and Scandinavian minimalism, organic and ethical food, and circular fashion are offering alternatives to what prosperity and progress can mean.

But often, only rich people can follow these trends, and companies can use them to hide the need for real change.

Additionally, local sustainable apparel brands tend to target women with more feminine colours, prints, and designs. Their writing portrays sustainability in terms of "nurturance" and "people" vs. the "assertive" and "competitive" language often used to describe progress—and menswear.

How might we include traits from both ends of this spectrum in a new, sustainable version of "happiness, prosperity, and progress"? After all, competition without care is unsustainable in the end.

Local brand Style Theory rents designer clothing and bags, with the option of buying them "preloved". Style Theory (n.d.), "About—Style Theory SG."

In the long run, we must tie sustainability to happiness, prosperity, and progress in the Singapore Story.

It's a good time to explore more eco-friendly ideas of success, such as how to enjoy life without consuming more, caring for the Earth, buying less but better, seeking balance with nature, and learning to be enough as we are.

This will take effort—which is why we especially need to start with young children in homes and schools.

Forest School Singapore helps children "build life and a relational connection with the world through nature, at their own pace and freedom" and as a way to teach them essential education skills. Forest School Singapore (2023), "FSS Holiday Camp Autumn 2023."

We, the citizens of Singapore,
pledge ourselves as one united people,
regardless of race, language or religion,
to build a democratic society
based on justice and equality
so as to achieve happiness, prosperity,
and progress for our nation.

Happiness, Prosperity, and Progress

The quest to create lasting sustainable change lies in our ability to redefine what happiness, prosperity, and progress for our nation means to us.

Public Sector

- Show how our traditions and heritage were already about taking care of nature (e.g. eco-friendly buildings, repair culture)
- Encourage conversations about how sustainability connects with other key social changes, especially from preschool to university
- Use media messaging to show how being green fits in with Singaporean values such as harmony
- Continue to legislate and support the transition away from heavily unsustainable practices to more sustainable practices

> "Legislation [...] will force people to live sustainably. There are people [who] will do it because it is morally right, and others who will only do it because they don't want to be punished. Of course there are others who still don't do it regardless, but the percentage is much, much lower."

R33, medium level of sustainability knowledge

Repair Kopitiam is a community repair meetup where people learn from volunteer coaches how to repair or mend their items.

Businesses

- Explore how products and services can work alternative, sustainable values into brand visions and practices (e.g. reframing used clothes as a matter of passing down heirloom fabrics)

- Encourage and design for circularity and stewardship in products and practices

The world-renowned outdoors brand Patagonia boasts high sustainability standards while donating all profits that are not reinvested to climate causes. (Image source: Flatspot).

Communities

- Encourage initiatives and communities that embody the kampong spirit and sharing culture (e.g. food sharing/trading, bulk purchases in collectives/groups, buying ugly foods)

- Balance sharing about environmental damage with painting a hopeful picture for how we can strive for happiness, progress, and prosperity in a sustainable way

- Showcase examples of people who can be seen as successful and yet still lead a sustainable life they enjoy without sacrificing quality of life

- Present sustainability as a matter of taking care of the next generation

"I'm from a South Asian background which, you know, likes curries, sambar, rasam, and like all of these things that you eat at lunch meals. They are all made in a collective way. So you're not wasting [... food,] electricity and fuel like cooking specifically for one customer. But you have to cook for a collective [...] like a pot for the day. So then, that immediately reduces the amount of waste that is being created, right?"

R21, high level of sustainability knowledge

Consolidated Suggestions for Stakeholders

A one-stop list of recommendations for possible change for:

- Public sector
- Businesses
- Communities

For Public Sector

Immediate Levers | Point 1: Show How Sustainability Meets Our 5 Security Needs

- Show how sustainable actions are good for people when getting them to adopt them
- Encourage career growth and up-skilling in sustainability industries and jobs—a growth market that adds to people's financial security
- Subsidise sustainable products and industries to make them more affordable for the average person
- Explore policies that make sustainable goods and services the default or more widely available

Immediate Levers | Point 2: Set Sustainability As the Default

- Make sustainability the default choice when designing and retrofitting infrastructure
- Keep local contexts and considerations in mind when designing sustainability messaging and nudges
- Create policies and initiatives that encourage sustainable behaviour beyond the 3 Rs (e.g. repair stations in heartland neighbourhoods, swapping events in communities)

For Public Sector

Immediate Levers | Point 3: Rewild the Island and Ourselves

- Continue rewilding initiatives to help native biodiversity and communicate the shift towards a "City in Nature"
- Highlight stories of bold sustainability change that bring people closer to nature without threatening lifestyles (e.g. Star Vista and Tzu Chi Humanistic Youth Centre as naturally cooled multi-use spaces)
- Fund sustainable redesigns of the lived environment at every level (architectural and civic)
- Communicate and prompt empathy for regional experiences of climate change beyond Singapore
- Encourage participatory co-creation around sustainability, which exposes people to macro issues and the messiness of policymaking while increasing ownership and involvement

Immediate Levers | Point 4: Tailor Strategies to Different Knowledge Levels

- Share more information about what's being done behind the scenes, including dialogues, processes, and data. This can happen through media and outreach efforts (High Knowledge)
- Get people involved in projects that help the environment by showing how it helps them personally, such as growing your own fresh produce without pesticides (Medium Knowledge)
- Plan sustainability projects for government workers that prioritise impact and engagement over ease

For Public Sector

Immediate Levers | Point 5: Goodbye Greenwashing, Hello Integrity

- Use a simple scale to show how products affect the environment, like a "Nutri-Grade" for sustainability (Low, Medium Knowledge)
- Show people how to spot companies that pretend to be sustainable when they aren't
- Support trustworthy international symbols and labels that show people that a product is good for the planet
- Legislate policies that deter companies from engaging in greenwashing

Long Term Levers | Point 6: Learn How to Hold Difficult Conversations

- Create facilitation guides and train people to talk about sustainability at home and work
- Communicate that helping the planet is something we do together, not just alone
- Ask important leaders in government and industry to talk about how they do sustainability, so others can learn from them
- Start teaching sustainable ideas and actions to students from preschool to university, and promote it as a new skill for the future workforce

For Public Sector

Long Term Levers | Point 7: Explore a World where We Choose Green over Growth

- Teach people how we can balance sustainability and making money (e.g. degrowth, circular businesses)
- Support research on better ways to achieve this balance; create guidelines for businesses and people
- Support activities, spaces, and communities that help people live better without consuming more (e.g. public spaces and programming, citizen initiatives and civic movements)
- Create spaces that encourage us to slow down and focus on what is important, instead of convenience and speed for its own sake

Long Term Levers | Point 8: A New Definition of Happiness, Prosperity & Progress

- Show how our traditions and heritage were already about taking care of nature (e.g. eco-friendly buildings, repair culture)
- Encourage conversations about how sustainability connects with other important social changes, especially from preschool to university
- Use messaging in the media to show how being green fits in with Singaporean values, such as harmony
- Continue to legislate and support the transition away from heavily unsustainable practices to more sustainable practices

For Businesses

Immediate Levers | Point 1: Show How Sustainability Meets Our 5 Security Needs

- Talk about how making the eco-friendly choice can make people's lives better, and explain why it's worth the money and effort
- Explore ways to make sustainable behaviours bring extra benefit for consumers (e.g. discounts, special rewards)
- Prioritise simplicity, clarity, ease, and accessibility in communicating and implementing sustainability initiatives

Immediate Levers | Point 2: Set Sustainability As the Default

- Promote sustainable workplace habits that save on costs or bring productivity benefits (e.g. hiring a barista or providing reusable cups increases morale and frees up more time for focused work)
- Explore how product features, marketing, and placement may help encourage sustainable behaviour
- Redesign products and services to use less packaging (e.g. reducing plastic-wrapped produce, paper instead of plastic bags)

For Businesses

Immediate Levers | Point 3: Rewild the Island and Ourselves

- Make the environmental costs of unsustainable habits and practices explicit and relatable in branding, communications, and packaging
- Provide more ways for people to see how greener products are made and appreciate the impact they have (e.g. educational tours)
- Use your brand to provide a platform for local sustainability efforts, people, and communities

Immediate Levers | Point 4: Tailor Strategies to Different Knowledge Levels

- Clearly explain to customers how sustainability practices help the business's bottom line (High Knowledge)
- Share transparent impact assessments by trusted third parties and take responsibility for areas where the business needs to improve, instead of pretending to do better (High Knowledge)
- Get consumers involved in taking care of the environment (e.g. workshops for learning how to fix products and designing sustainable products) (Medium Knowledge)
- Teach customers about sustainability as they're using the business's products and services (Low, Medium Knowledge)

For Businesses

Immediate Levers | Point 5: Goodbye Greenwashing, Hello Integrity

- Use trusted sustainability language and labels instead of vague messaging or greenwashing
- Make sure the company is really doing what it says it's doing; do an independent environmental audit, own up to any shortcomings and change them
- Communicate sustainability in a coherent and clear way across all consumer touchpoints (web, events, etc.)
- Collaborate with other brands, to share visibility and show consumers that the industry is moving towards sustainability

Long Term Levers | Point 6: Learn How to Hold Difficult Conversations

- Design moments for consumers to talk about sustainability, using packaging and ads
- Support and reward ideas that help with sustainability at work
- Make sure workers feel safe to share these ideas, too.
- Run programmes that teach and model how to talk about sustainability at work

For Businesses

Long Term Levers | Point 7: Explore a World where We Choose Green over Growth

- Learn about and experiment with new ways to doing business, such as regenerative business models and postcapitalist design
- Share these ideas and your efforts with others in your industry, and work on them together
- Build communities around your products that are about care and relationships rather than transactions and progress

Long Term Levers | Point 8: A New Definition of Happiness, Prosperity & Progress

- Explore how products and services can work alternative, sustainable values into brand visions and practices (e.g. reframing used clothes as a matter of passing down heirloom fabrics)
- Encourage and design for circularity and stewardship in products and practices

For Communities

Immediate Levers | Point 1: Show How Sustainability Meets Our 5 Security Needs

- Reveal the costs of unsustainable actions and decisions to other stakeholders in the ecosystem—and connect them back to the individual consumer
- Explore gamification with tangible rewards as a way to encourage sustainable behaviour change.

Immediate Levers | Point 2: Set Sustainability As the Default

- Collaborate with government bodies and consumer-facing businesses on sustainability in product design and placemaking
- Offer tips for families that involve introducing sustainability to the home environment while providing tangible benefits
- Consider how engagement programmes may fit into consumers' daily lives and lived environments (e.g. swapping events in community spaces)

For Communities

Immediate Levers | Point 3: Rewild the Island and Ourselves

- Design sustainability engagements that promote a close relationship with nature and our impact on it (e.g. guided sustainability tours around natural or lived environments)
- Connect people, communities, and organisations doing sustainability work to each other, to strengthen environmentalist networks and help people feel less alone
- Use engagement programmes that fit into consumers' daily lives and environments to show them the sustainability efforts around them (e.g. swapping events in community spaces)

Immediate Levers | Point 4: Tailor Strategies to Different Knowledge Levels

- Design different engagement programmes for people with different knowledge levels
- Create opportunities for people interested in sustainability to come together, encourage one another, and collaborate on projects (High Knowledge)
- Find ways to make it easy for people to take part in projects that help the environment in their daily lives (Low, Medium Knowledge)

For Communities

Immediate Levers | Point 5: Goodbye Greenwashing, Hello Integrity

- Make guides to help companies talk about sustainability in a better way
- Offer different levels of sustainability information for different people, from easy to advanced
- Raise awareness about global environmental accreditations and persuade organisations to get them

Long Term Levers | Point 6: Learn How to Hold Difficult Conversations

- Adapt current sustainability programmes to help families and workplaces better understand how they can make a difference
- Teach parents to talk to their kids about how we can take care of nature and its resources
- Train people on how to prepare for sustainability conversations at home and work, and how to meet people with empathy and curiosity

For Communities

Long Term Levers | Point 7: Explore a World where We Choose Green over Growth

- Look at the assumptions your organisation makes about growth and progress, and change them if they aren't helping sustainability
- Learn about how our capitalist society works and how people are coming up with better ways to do things
- Share this knowledge with your network and the people you work with each day

Long Term Levers | Point 8: A New Definition of Happiness, Prosperity & Progress

- Encourage initiatives and communities that embody the kampong spirit and sharing culture (e.g. food sharing/trading, bulk purchases in collectives/groups, buying ugly foods)
- Balance sharing about environmental damage with painting a hopeful picture for how we can strive for happiness, progress, and prosperity in a sustainable way
- Showcase examples of people who can be seen as successful and yet still lead a sustainable life they enjoy without sacrificing quality of life
- Present sustainability as a matter of taking care of the next generation

Postscript

For sustainable transformation to happen, we need to make change happen across the whole system.

Right now, most efforts, initiatives, and funding focus on the Immediate Levers, whereas Long-Term Levers tend to get less attention despite their critical importance. We encourage everyone reading this to give Long-Term Levers a little more consideration, even as we all work on the Immediate Levers!

Here are some reflection questions for you and your organisation as we all explore how to make sustainability a bigger part of our lives and communities:

- What other kinds of knowledge do you or your organisation want to gain? Where or from whom can you find that?
- Who is your target audience, and what level of sustainability knowledge do they have?
- Which of the 8 Levers seems most:
  - Feasible?
  - Exciting?
  - Impactful?
- What knowledge or insights can you bring into your organisation from how people do sustainability in a different field? (e.g. fashion vs. social change vs. policymaking)

"All animals in nature have a natural sustainable behaviour. Humans are the only ones who can disrupt processes.

Many daily decisions adding up, I think it makes a difference—one person makes a difference. Being conscious about what you use and consume, putting in more effort... it's mindfulness at the end of the day. Then gradually you'll just be living sustainably."

R33, medium level of sustainability knowledge

"All of us are responsible! The conversation shouldn't be about who is responsible but about what should be done. The more we start pointing fingers... that's where we lose out. I think it's more about what structures should be put into this functioning society that is consistently part of our lifestyle."

R21, high level of sustainability knowledge

Annex A:
# Leverage Points for Changing Systems

Leverage Points for Changing Systems

We used a framework, based on the ideas of Donella Meadows, to sort the main parts of our findings.

Donella Meadows was an important thinker and writer who focused on sustainability and systems theory. She talked about 12 different "leverage points" that we can use to make meaningful changes within complex systems.
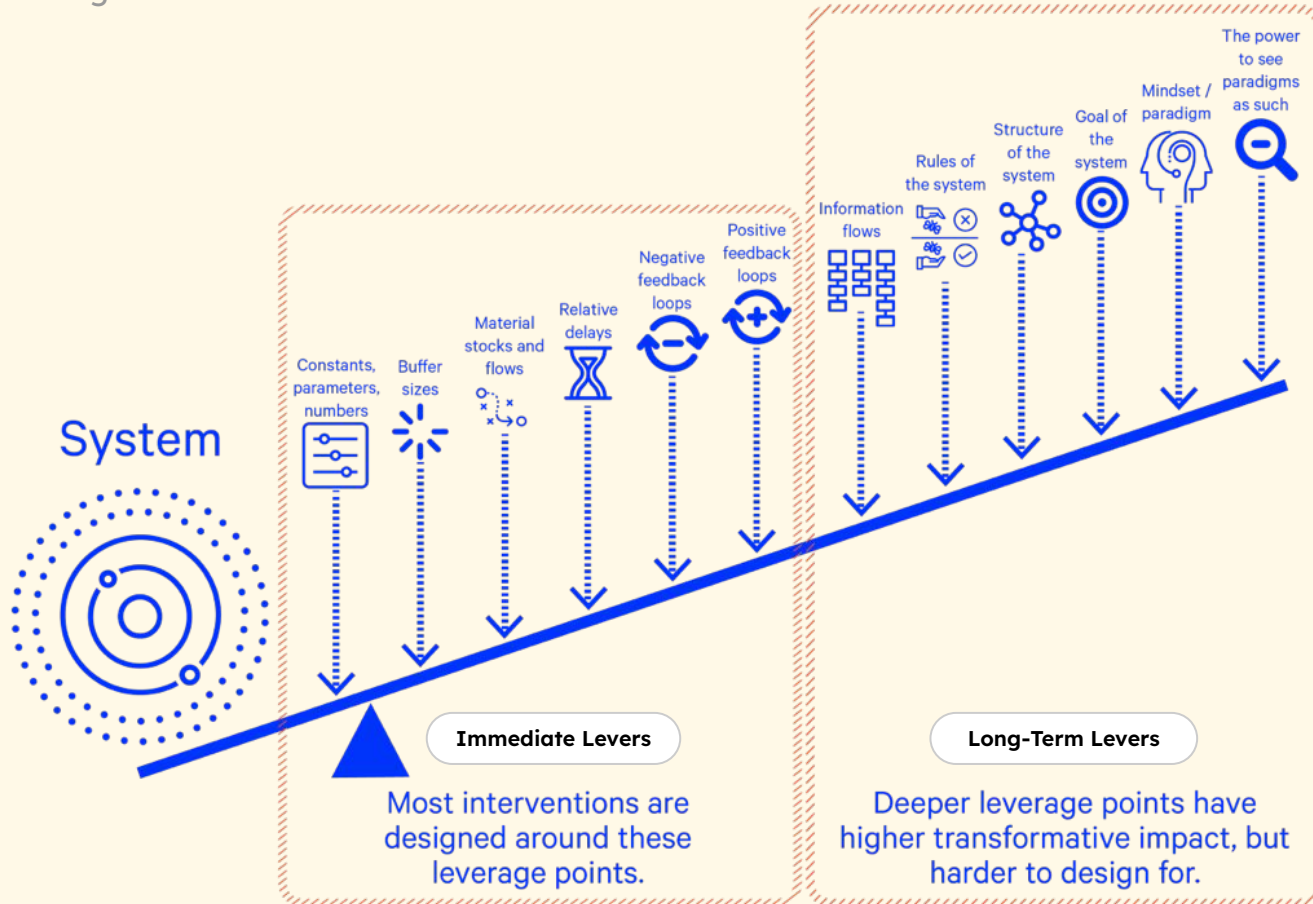
These 12 points show how important it is to understand how systems work and how to use these points to make effective change happen. They start with smaller changes that are easy to see but also are small in impact, and go all the way to big changes in how we think and act that deeply shape how a system works.
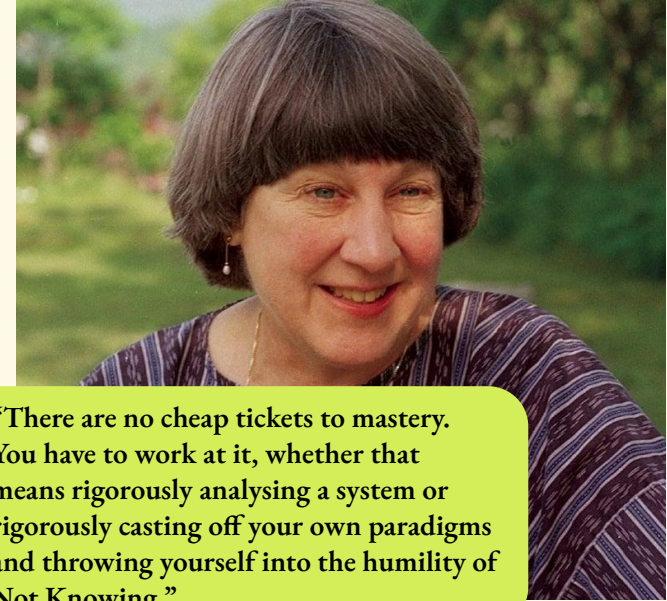
"There are no cheap tickets to mastery. You have to work at it, whether that means rigorously analysing a system or rigorously casting off your own paradigms and throwing yourself into the humility of Not Knowing."

Quotation: Donella Meadows, Leverage Points (1999)
(Image source: Olmo Senziente)

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System

Constants, parameters, numbers

Buffer sizes

Material stocks and flows

Relative delays

Negative feedback loops

Positive feedback loops

Information flows

Rules of the system

Structure of the system

Goal of the system

Mindset / paradigm

The power to see paradigms as such

Immediate Levers

Most interventions are designed around these leverage points.

Long-Term Levers

Deeper leverage points have higher transformative impact, but harder to design for.

Source: Ecological Economics for All (2022), "Systems Thinking."

Adapted from Meadows (1977): Leverage Points: Places to Intervene in a System

Immediate Levers

These are organised in order of increasing effectiveness and impact:

1. **Constants, Parameters, Numbers**: These are the main things that decide how a system behaves. Even though we often focus on these, they don't always have the biggest impact on the whole system.

2. **Sizes of Buffers**: Changing a system's buffers and capacities for storing different things can also change how it behaves.

3. **Structure of Material Stocks & Flows**: The paths that materials take matter—they affect where bottlenecks are and how fast things move. Though important, physical infrastructure is often costly to change; it's better to design them well from the start.

4. **Length of Delays**: If there's a delay in how fast information moves in a system, it can change how the system behaves. For example, if you don't get news quickly, your decisions might be slow.

5. **Negative Feedback Loops:** Systems often have balancing (negative) feedback loops that helps counteract a change, resulting in a self-stabilising behavior.

6. **Positive Feedback Loops:** A self-perpetuating pattern of reinforcing (positive) feedback loops. They are sources of growth, but if left unchecked by a negative loop, overruns and ultimately destroys itself.

Examples

1. Taxes; amount of land set aside for conservation; product prices

2. Reservoirs; landfills

3. Transport networks; plumbing systems in buildings

4. Aircon cooling a room; planning for 4-year university degrees vs. industry shifts today

5. Thermostat to maintain room temperature; Insulin and blood glucose levels

6. Success to the successful; Rich getting richer; Warming Arctic melting sea ice

Long-Term Levers

These are organised in order of increasing effectiveness and impact:

7. **Information Flows**: Getting accurate and timely information impacts choices and can lead to better outcomes.

8. **Rules & Incentives**: Rules, regulations, and incentives govern behaviour in a system; changing them can lead to better or less desirable results.

9. **The Power to Change System Structure**: A system that experiments, learns, and evolves can handle dynamic and changing environments by changing itself. If it's stuck on one way of doing things, though, it can't learn and grow.

10. **Goal(s) of the System**: Every system has a goal (or many), and these depend on who's using it. Right now, the goal for most organisations is to make as much money as they can—though this goal can be questioned and changed to better the system.

11. **Mindset or Paradigm:** Changing the fundamental ways people see a situation or issue can lead to profound changes in behaviour and outcomes, because shared norms and values are the base that systems are built on..

12. **The Power to Transcend Paradigms**: The most powerful leverage point lies in staying open and flexible instead of getting too attached to any one paradigm, as this can limit people from making a system healthier and more sustainable.

Examples

7. *Dashboards; news; business communications*

8. *Laws & guidelines; rewards programmes; social encouragement or discouragement*

9. *Evolution; revolutions; organisational restructuring; iterative design*

10. *Vision & mission statements; strategic priorities; change demands*

11. *Capitalism; consumerism; humanism; postmodernism*

12. *Existentialism, non-duality, "not-knowing"*

Annex B:
Interview Screener

Interviewee Selection & Knowledge Level Grouping

When choosing the 33 interviewees for our research, we aimed for a balanced demographic representation. We evenly divided the participants by:

- **Age groups:** 21-30 and 31-40
- **Gender:** Female and Male
- **Ethnicity:** Reflecting Singapore's national composition
- **Sustainability knowledge levels:** High, Medium, Low

To investigate knowledge levels and the knowledge-action gap, we designed 6 questions to gauge respondents' knowledge levels. We reminded them to answer honestly and to refrain from using online search engines. A correct true/false answer earned 1 point, while an incorrect/unsure answer earned 0 points. A total score of 0–2 was categorised as "low", 3–4 as "medium", and 5–6 as "high".

However, we acknowledge that factual knowledge doesn't fully capture a true understanding of the complex, systemic nature of sustainability. To address this, we included additional qualitative questions covering:

- The degree that sustainability affected their life decisions
- Sources of sustainability knowledge
- Participation in sustainability activities
- Shopping habits for clothing
- Take-away food purchasing behaviours
- Names of sustainable brands they were familiar with

Sustainability Knowledge Questions (True/False/Unsure)

1. Greenwashing is when a company claims to be environmentally conscious for marketing purposes, but makes no notable sustainability efforts.

2. Most plastic bottles and caps are made from the same plastic type and can be recycled together.

3. Nylon is a natural textile material.

4. Each time synthetic clothes are washed, tiny plastic particles called microplastics are released into the environment.

5. Containers with food, grease, or moisture should be rinsed before being placed in the recycling bin, to avoid contamination.

6. The same piece of plastic can be recycled 10 times before its quality decreases to the point that it can no longer be used.

(Answer: 1 True. 2 False. 3 False. 4 True. 5 True. 6 False.)

Annex C:
About the Citizen Volunteer Sustainability Research Programme

The Citizen Volunteer Experience

Relationships are crucial to any change movement. It was important that our volunteer researchers, experts, and partners have the chance to make friends and bond over shared learning experiences around sustainable changemaking.

This led us to incorporate 3 types of experiences within the volunteer research programme that TRIA engaged Studio Dojo to design and run.

Learning more about sustainability	**Building citizen-led participatory research skills**	**Creating meaningful bonding experiences**
Learning experiences from experts and partners in the field: • TRIA Digester Visit • Bedok Community Trail • "My Role In The Climate Crisis" Workshop and Climate Fresk Game • Life Cycle Analysis & Circular Economy	Workshops & sharing/co-creation sessions on: • Desk research • Ethnographic interviews • Semiotics • Sensemaking & insights • Leveraging emotions in effective communications	Immersive encounters for bonding & making memories together: • Forest Walk • Intertidal Walk • Team appreciation sessions • Report sharing & volunteer appreciation

150

Volunteers and experts participating in the Climate Fresk workshop.

Learning about TRIA's cutting-edge Bio24 digester, part of the world's first closed-loop system for single-use foodware & food waste.

Forest Walk with a Forest School coach.

Pre-dawn Intertidal Walk with partner Green Nudge.

LCA and Circular Economy online roundtable with So Pyay (PXP Sustainability) and Alice Casiraghi & Lu Ying (Future Urban Living).