



Sustainable Healthcare: Educating Sustainable Procurement and Eco-Friendly Supply Chain Decisions

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The Problem Statement

“Lack of knowledge and tools hinders sustainable purchasing behavior, limiting eco-friendly choices.”

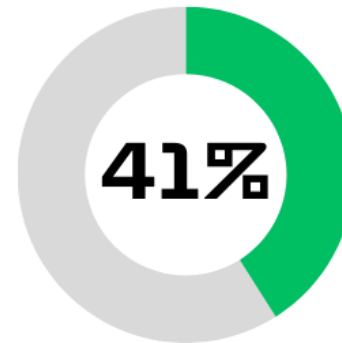
The green balancing act: How Singapore SMEs can navigate sustainability and costs

SMEs continue to face challenges in becoming more sustainable, such as lack of resources and manpower, reveals survey

BT

Published Tue, Mar 12, 2024 · 09:50 PM

Source: The Business Times, Singapore



Do not know where/how to start to become more sustainable

Our Solution

This comprehensive dashboard reveals insightful data on carbon emissions and other environmental statistics. It serves as a valuable tool for informed decision-making towards sustainability, adherence to eco-friendly practices, and fostering a more sustainable healthcare ecosystem.



Cost Savings

Track any cost savings resulting from more efficient resource management



Environmental Impact Awareness

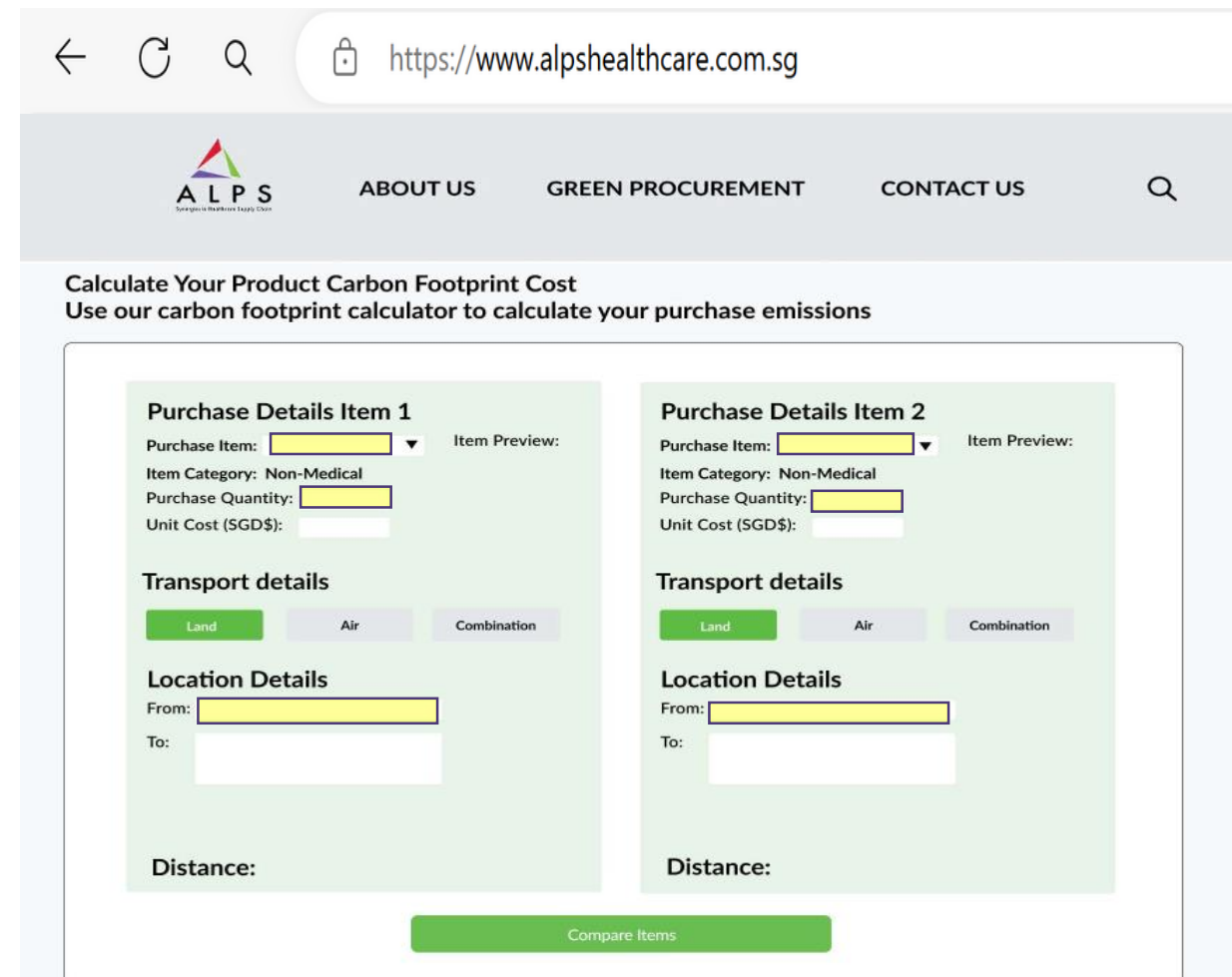
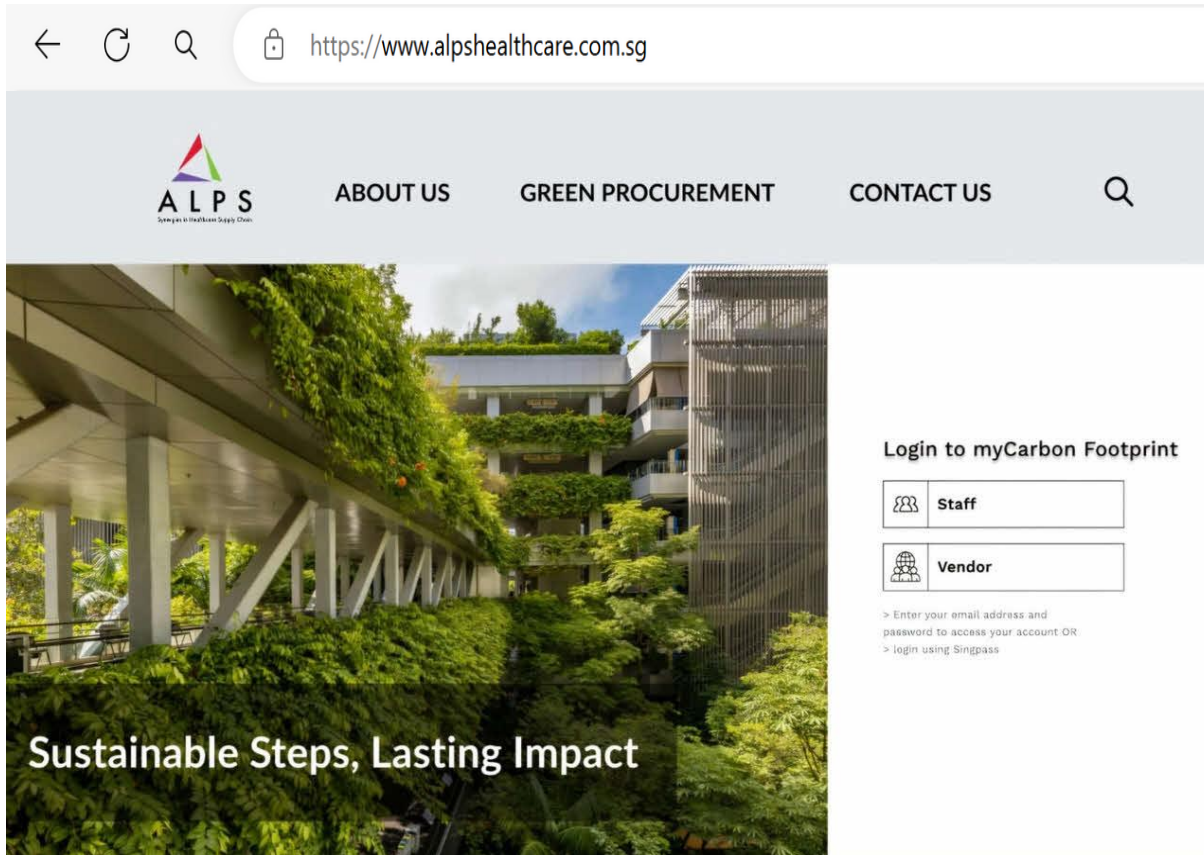
Visibility on metrics related to environmental sustainability



Accountability

Transparency in sustainability reporting builds trust and confidence

Dashboard Prototype



Safeguarding Food Security

Produce 30% of our nutritional needs locally and sustainably by 2030, through developing land and sea space and skilled workers, funding support, and promoting R&D



Unsold greens a persistent issue for Singapore's vegetable farms; businesses urge support for local produce

Reasons for the wastage include order cancellations, poor product displays at retailers, low awareness and a lack of support for the local farming scene, the farms said.



Employees harvest greens at an urban vegetable farm in Singapore.

Clara Lee
Darrelle Ng

13 Jul 2023 09:11AM



Commentary: Time to rethink Singapore's '30 by 30' food resilience, amid local farm setbacks

Local high-tech farms will not be able to compete on price alone, but we cannot simply lament that consumers aren't willing to open their wallets to show support, says RSIS food security expert Paul Teng.



Some local farms have faced delays or failures, in a blow to Singapore's goal to produce 30 per cent of nutritional needs locally by 2030. (AP Photo/David Goldman)


Paul Teng

08 Jun 2024 06:00AM



Dashboard Prototype


← ↻ 🔍 <https://www.alpshealthcare.com.sg>

 ABOUT US GREEN PROCUREMENT CONTACT US 🔍

Calculate Your Product Carbon Footprint Cost

Use our carbon footprint calculator to calculate your purchase emissions

Purchase Details Item 1

Purchase Item: Xiao Bai Cai Item Preview: 

Item Category: Non-Medical

Purchase Quantity: 1000 KG

Unit Cost (SGD\$): 13,500

Transport details

Land Air Combination

Location Details


From: 313 Dairy Farm, Singapore 342302

To: Tan Tock Seng Hospital, 11 Jln Tan Tock Seng, Singapore 308433

Singapore → Singapore

Distance: 20km

Purchase Details Item 2

Purchase Item: Xiao Bai Cai Item Preview: 

Item Category: Non-Medical

Purchase Quantity: 1000 KG

Unit Cost (SGD\$): 15,280

Transport details

Land Air Combination

Location Details

From: 51/86 Moo 7 Khlong Luang Muang Mai Soi 4/6, Pathum Thani 120120 Thailand

To: Tan Tock Seng Hospital, 11 Jln Tan Tock Seng, Singapore 308433

Thailand → Singapore

Distance: 1,824.8km

Emissions Comparison (per 1,000 KG of Xiao Bai Cai)

Stage	Singapore Produce (Kg CO ² E)	Thailand Produce (Kg CO ² E)
Harvesting	424	1444
Transport	9	780
Total CO²E (kg)	433	2224

Cost Comparison

Raw Cost (SGD/KG)	13,500.00	15,280.00
Carbon Tax	10,821.00	55,600.00
Total Cost	24,321.30	70,879.73

 **Generate AI Recommended Report**

AI Generated Recommendation: Singapore Produce

Based on your current input and data analysis, we recommend choosing the Singapore-produced Xiao Bai Cai over the imported one from Thailand for the following reasons:

1. Lower Carbon Emissions:

- Singapore Produce: The total carbon footprint for locally produced Xiao Bai Cai is significantly lower at 433 kg CO₂e.
- Thailand Produce: The imported alternative results in 2224 kg CO₂e, making it 5.1 times more carbon-intensive due to transportation and other factors.

2. Cost Efficiency:

- Total Cost (SGD): Opting for the Singapore-produced option costs SGD 24,321.30, which includes a lower carbon tax due to reduced emissions.
- Thailand Option: The imported produce costs SGD 70,879.73, which is SGD 46,558.43 more expensive. This higher cost includes additional carbon taxes and higher base prices.

3. Support for Local Agriculture:

Backend Algorithm



Singapore centric Emissions Factor

For every 1kg of Xiao Bai Cai during harvesting:

	Singapore		Malaysia		Thailand	
	Electricity Required (kWh)	Water (L)	Electricity Required (kWh)	Water (L)	Electricity Required (kWh)	Water (L)
Quantity	1	32.5	2	65	2	65
CO2e/kWh	0.415	0.000275	0.713	0.000275	0.713	0.00027
Emissions (kg Co2e)	0.415	0.008937	1.426	0.017875	1.426	0.017875



Integration with Google Maps API

Emissions Factor (kg*km)		
Land	Sea	Air
0.000428	0.0000182	0.00102



Integration with Tandem (ChatGPT)

Future Roadmap

2025

- Identify and prioritize high-impact categories.
- Develop a supplier engagement program to encourage sustainability disclosures and improvements.

2027

- Integrate with eprocurement system to track carbon footprint.
- Engage supplier for collaborative sustainability initiatives.



2029

- Establish a procurement-led sustainability hub, driving new solutions & technologies.
- Embed sustainability and carbon management into procurement DNA.
- Alignment with Singapore 2030 Green Plan for a Green Economy & Resilient Future



Q&A

Thank you for listening!