



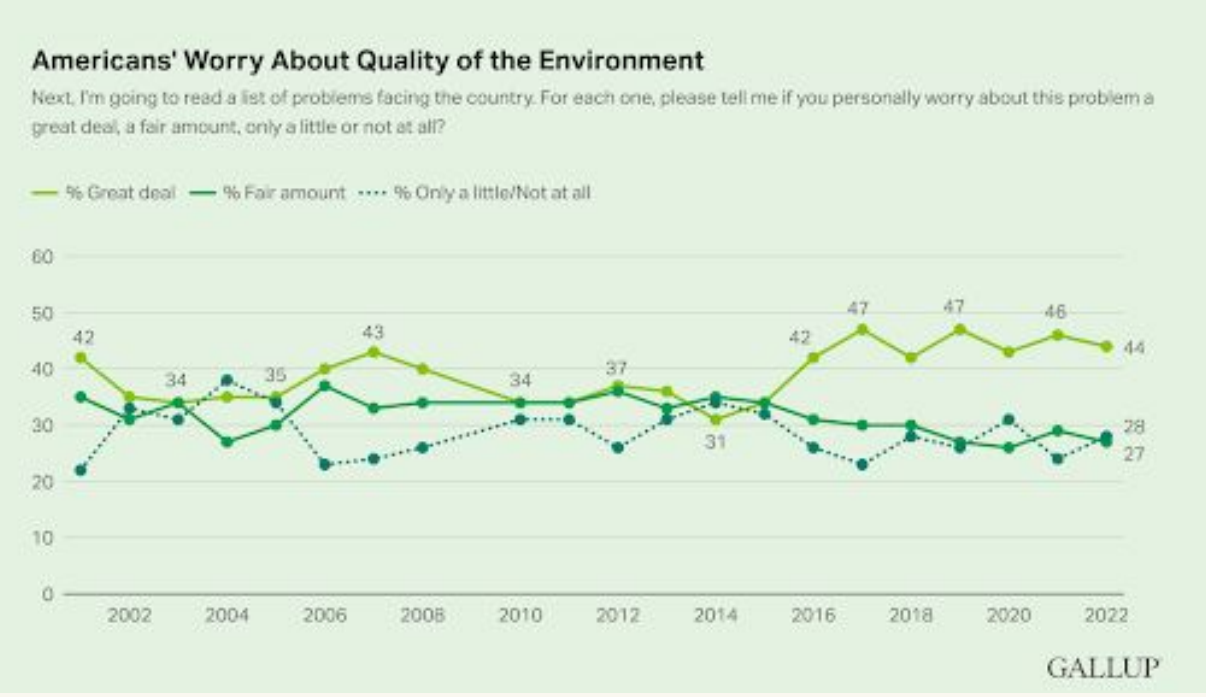
Does Environmental Awareness Promote Sustainable Consumption? The Moderating Roles of Generation and Socioeconomic Status

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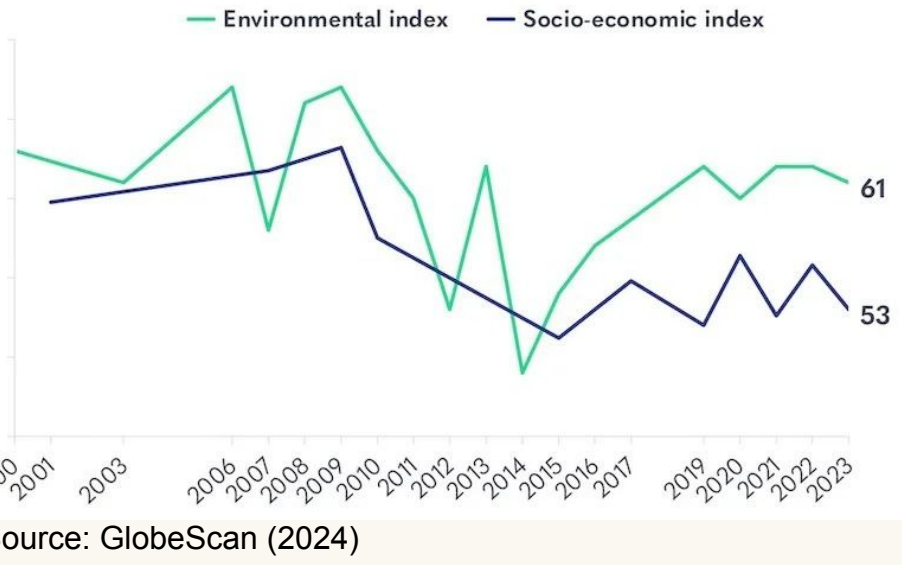
Background

- Global material consumption has increased from approximately 27 billion tons in 1970 to over 100 billion tons annually, contributing to resource depletion, pollution, and environmental degradation (System Change Lab, 2025).
- Humanity currently uses natural resources at a rate equivalent to 1.8 Earths, meaning that ecological demand exceeds the planet's capacity to regenerate those resources (Global Footprint Network, 2025).
- Previous research involving samples ranging from 244 to 3,112 participants has found links between environmental awareness and sustainable consumption behaviors, but it remains unclear whether this relationship differs across generations and socioeconomic groups (Hoşgör et al., 2023; Kirsten & Biyase, 2023; Liang et al., 2024).



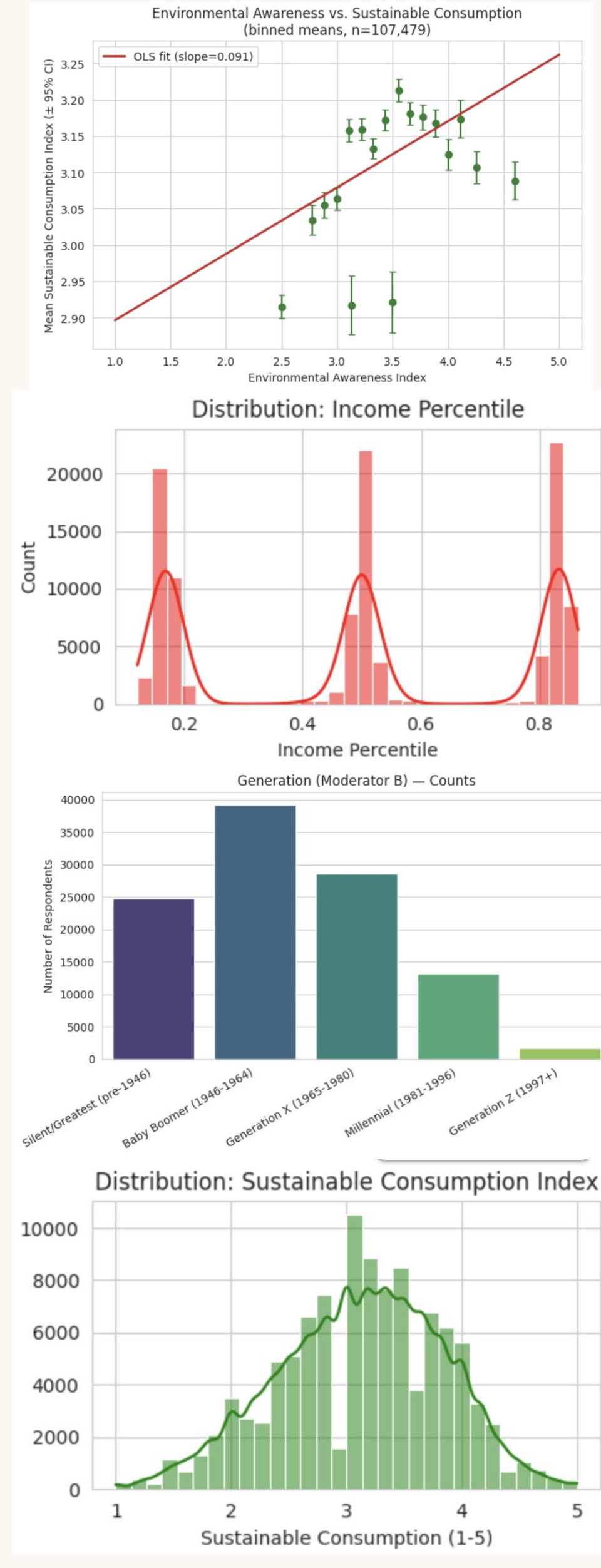
Source: Gallup, Saad (2022)

The Myth of the Green Backlash: People Are Showing More Concern about Environmental Issues than Socio-economic Issues



Source: GlobeScan (2024)

Descriptive Statistics



Variable	Definition	Mean	SD	Min	Max
Sustainable Consumption Behavior	Composite index measuring respondents' sustainable consumption behaviors, including environmentally responsible purchasing and consumption practices.	3.11	.72	1.00	5.00
Environmental Awareness	Composite index measuring respondents' awareness of environmental issues and concern for environmental protection.	3.45	.51	1.00	5.00
Income Percentile within country	Respondent's household income category, coded into ordered income groups.	.50	.27	.12	.87
Generation (Age)	Respondent's age recoded into five ordered age groups: 1 = 14–29, 2 = 30–45, 3 = 46–61, 4 = 62–80, and 5 = 81–98.	2.61	1.09	1.00	5.00
Sex	Respondent's sex (0 = Female, 1 = Male)	0.46	.50	0	1.00
Urban/Rural	Respondent's place of residence, recoded into Urban (1 = original categories 1–2) and Rural (2 = original categories 3–5)	1.58	0.49	1.00	2.00
Education level	Respondent's highest level of educational attainment (0 = less than primary education, 5 = tertiary education).	2.89	1.48	0	5
Environmental participation	Environmental Participation Index measuring respondents' engagement in environmental activities and behaviors. Higher scores indicate greater environmental participation.	3.12	.22	3.00	4.00

Regression Model

DV: Sustainable Consumption Behavior
IVs: Environmental Awareness, Socioeconomic status, generation
Control variables: Gender, Sex, Urban/Rural residence

Variables	Main Effects	Income Moderation	Generation Moderation	Full Model
Environmental Awareness	0.14***	0.11***	0.22***	0.21***
Generation	0.07***	0.07***	0.18***	0.18***
Income Percentile	0.11***	-0.05	0.11***	0.03
Education Level	0.08***	0.09***	0.08***	0.08***
Urban/Rural Residence	0.02***	0.02***	0.02***	0.02***
Environmental Participation	1.01***	1.01***	1.01***	1.01***
Male (=1)	-0.02***	-0.02***	-0.02***	-0.02***
Environmental Awareness x Generation			-0.03***	-0.03***
Environmental Awareness x Income Percentile		0.05***		0.02
N	106,625	106,625	106,625	106,625
R^2	0.15	0.15	0.15	0.15

*p<0.1, **p<0.05, ***p<0.01

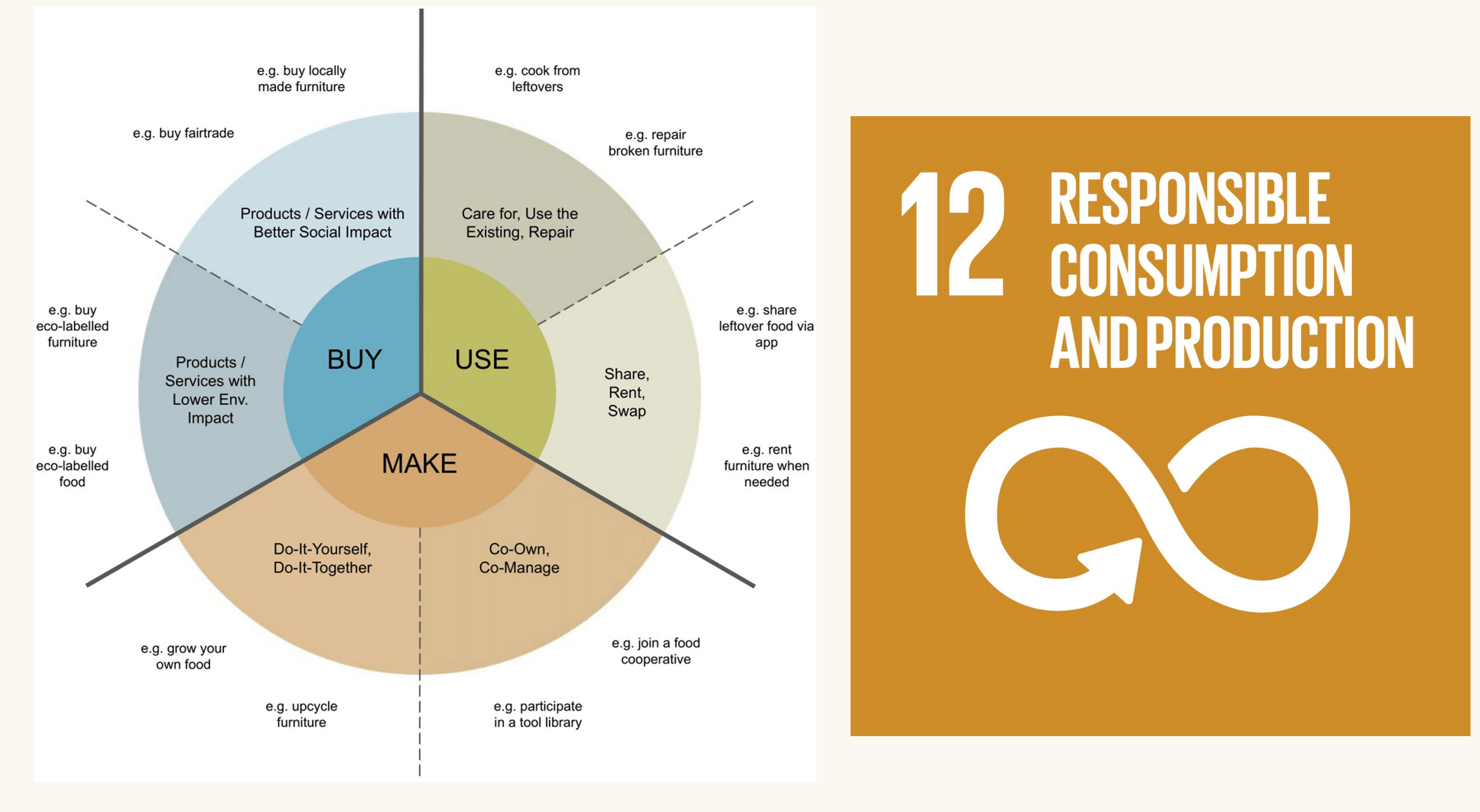
- H1: Environmental Awareness → Sustainable Consumption: $\beta = 0.21^*$, $p < .001$ — Supported.
- H2: Environmental Awareness × Income Percentile: $\beta = 0.05^*$, $p < .01$ — Partially Supported. Income percentile moderates the relationship between environmental awareness and sustainable consumption.
- H3: Environmental Awareness × Generation: $\beta = -0.03^*$, $p < .001$ — Supported. The positive effect of environmental awareness on sustainable consumption is weaker across higher generation categories.

Results

- H1 Supported: Greater environmental awareness was significantly associated with higher sustainable consumption ($\beta = 0.21^{***}$, $p < .001$). Individuals with greater awareness were more likely to engage in sustainable consumption behaviors.
- H2 Partially Supported: Environmental Awareness × Income Percentile was significant ($\beta = 0.05^*$, $p < .01$). The positive relationship between environmental awareness and sustainable consumption was stronger among respondents with higher income percentiles. However, this interaction was no longer significant in the full model.
- H3 Supported: Environmental Awareness × Generation was significant ($\beta = -0.03^{***}$, $p < .001$). The relationship between environmental awareness and sustainable consumption became weaker across older generation categories.

Conclusion

- Policymakers can promote sustainable consumption through environmental education and awareness campaigns, while also improving access to sustainable products. Businesses can tailor sustainability messaging to different income groups and generations to improve its effectiveness, while educators and environmental organizations can develop age-specific programs that encourage environmentally responsible consumer behavior.
- Since this study used cross-sectional survey data, causal relationships between environmental awareness and sustainable consumption cannot be established. Future research should use longitudinal data and examine additional factors, such as cultural values, environmental policies, and product accessibility, that may influence sustainable consumption.



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Image & Figure Sources

Gallup — Saad (2022); GlobeScan (2024); UCLA Sustainability (2024); The GH Falcon; United Nations; Frontiers in Sustainability (2025).