International Journal of Recent Development in Engineering and Technology
Website: www.ijrdet.com (ISSN 2347-6435 (Online) Volume 15, Issue 07, July 2026)

Food Sustainability and University Students: An Research of Dietary Changes after Leaving Home.

K P Guru Satwick[1], Dr. Sumera Aluru[2]
[1]*Student*
[2]*Associate Professor*

***Abstract*— Being conglomerates of future consumers and decision-makers, universities have unmatched potentials to become living laboratories of sustainable dietary change. The food system of the world is at a cross-road. Food production and consumption patterns are one of the most impactful areas of human ecological influence as they account for an estimated 29% of total greenhouse gas emissions due to human activity and cover about 38% of the terrestrial surface on Earth (Poore & Nemecek, 2018). The eating habits of the new adult demographics, namely university students, are a strategically important and under-researched field of intervention within this larger crisis.**

India provides a very interesting case study to this question. The blistering urbanization, a growing number of university graduates, and the further geographical separation of students of their native areas form new socio-ecological processes, which western-centric literature fails to represent. The current research, which is based on primary surveys of 292 students of universities (MRSL Dataset, 2025), aims to empirically measure the dietary and environmental consequences of such transitions, evaluating them through internationally recognized measures of sustainability and nutrition.

The paper is designed in such a way that it creates an analytical journey; beginning with theoretical grounding and identification of the research gap, through the methodological rigor, to the presentation of the empirical results, as well as policy-specific conclusions. It helps the SDG 12 responsible consumption and production requirement by offering granular, evidence-based understanding of the determinants and effects of the student food behavior in the Indian university setting.

***Keywords*-- Sustainable food consumption, MAR, PHDI, DII, carbon footprint, university students, SDG 12, dietary transition, environmental footprint, India**

I. Introduction

The world food regime is on the edge. A source of up to 29 percent of the global anthropogenic emissions of greenhouse gases and a landmass of around 38 percent of the global land, the agricultural production and consumption practices represent one of the most impactful fields of human ecological activity (Poore and Nemecek, 2018).

Among this larger crisis, the nutritional habits of young adult groups, in particular college students are a strategically valuable and under-researched field of intervention.

India would be a very interesting case study on this question. High urbanization, growing student numbers in universities and geographic mobility of students out of their regions leads to new socio-ecological relations poorly represented in Western-centric literature. The current research, based on primary survey data of 292 university students (MRSL Dataset, 2025), aims at empirically measuring the dietary and environmental impact of these transitions, based on internationally validated sustainability and nutritional indicators.

The paper is organized in a way that allows a thorough analytical process: theoretical background and identification of the gaps in the research, methodological rigor, and the findings and conclusions relevant to the policy. Production by fostering responsible consumption. Supports responsible consumption (SDG 12) and responsible production. production by offering granular, evidence-based information on the factors and implications of food Students' behaviour in India University context.

II. Literature Review

2.1 Theoretical Foundations

1) The 'funnel metaphor' - the Framework for Strategic Sustainable Development (FSSD), is the main model. This research builds on the structuring of Robèrt et al. (2002). Complementing the FSSD, The Socio-Ecological Transition (SET) framework describes the university enrollment process as a transition. an inflection point. Factors such as parental food practices, socio-economic, cultural food identification are all inputs to the system. Adapted to the transformative forces of institutional environments, peer norms and infrastructural constraints. The resulting dietary patterns constitute 'outputs' measured through indices such as the Mediterranean Diet Score, MAR, PHDI, and DII.

International Journal of Recent Development in Engineering and Technology
Website: www.ijrdet.com (ISSN 2347-6435 (Online) Volume 15, Issue 07, July 2026)

2.2 Dietary Models and Environmental Footprints

2) The Mediterranean Diet (MD) has historically served as the gold standard proxy for dietary quality and sustainability in student populations. The studies have reported that the MD lowers the environmental impact as much as 133 per cent than the traditional Western dietary habits (Saez-Almendros et al., 2013). However, longitudinal research at the University of Rijeka (2009) shows a statistically significant decline in MD adherence over 16 years, the increase in obesity rates, and the predisposition towards more pro-inflammatory diet. The Planetary Health Diet (Willett et al., 2019) of the EAT-Lancet Commission builds on this paradigm by clearly connecting dietary advice with planetary constraints. Planetary Health Diet Index (PHDI) is a system that a diet receives points out of based on how it follows recommended consumption of plant-rich and low-red-meat and low-ultra-processed dietary patterns.Its connection to water and land use footprints makes it especially adaptable to the two-fold health-sustainability requirement of SDG 12.

2.3 Barriers to Sustainable Food Choices

3) The literature has aligned on three main determinants of student food choice that limit sustainable food choices: taste (the most common behavioral determinant), price (the most common structural determinant), and convenience (influenced by academic workload and time scarcity).Gifford's taxonomy of 'Dragons of Non-Sustainability' adds cognitive and psychological dimensions, including finite pool of worry, optimism bias, and perceived behavioral inefficacy barriers that operate below the level of conscious dietary decision-making.

The most paradoxical observation in this literature is the so-called knowledge-action gap, which is the registered nonconcurrence between high dietary literacy (nutritional literacy) and low dietary adherence. Even students with advanced knowledge of the principle of sustainability still do not apply this knowledge in their everyday dietary habits, indicating that structural and environmental contexts rather than attitudinal determinants play a greater role in the food behavior phenomenon in the real world.a right parenthesis. The level-3 heading must end with a colon. The body of the level-3 section immediately follows the level-3 heading in the same paragraph. For example, this paragraph begins with a level-3 heading.

III. Research Gaps

Although the subject has received considerable academic interest, the current literature has a number of critical gaps filled by the current study:

Virtually all empirical studies on student sustainable food consumption are done in high-income Western settings (USA, UK, Australia, Northern Europe). The student population of the Indian university, caught in the crossroads of traditional food culture, the fast economic stratification process, and the coming of the urbanization can still be underrepresented in the academic literature.

Although each of the four standardized sustainability and nutritional indicators (MAR, PHDI, DII) have been used separately, there is little literature that combines all four indicators in one analytical instrument, impeding cross-domain interpretability.

The possible effect of various residential setups (university-catered halls, self-catered accommodation, private accommodation, parental residence) on dietary outcomes is poorly theorized and empirically investigated.

The notion that an increase in disposable income leads to an increase in dietary sustainability scores is challenged by the recent evidence on the topic, arguing that financial constraint can paradoxically encourage more plant-based, less processed diets. Such a relationship ought to be tested systematically and empirically.

Students who are moved way out of their home areas experience increased problems of both cultural dietary disturbance, lack of social support, and new food contexts. This aspect of food insecurity is not covered by a majority of the research.

IV. Research Aims

1. To measure the nutritional adequacy of diets of university students using the Mean Adequacy Ratio (MAR) by residential status, geographic displacement, and monthly budget cohorts.
2. To determine how well student diets comply with planetary health guidelines of the Planetary Health Diet Index (PHDI) and the subgroups with the most divergent diet patterns.
3. To determine the pro-inflammatory diets of student diets using Dietary Inflammatory Index (DII) and to test the hypothesis that residential and financial structures are predictors of a pro-inflammatory diets.
4. To measure the environmental footprints (carbon CO2, water, land use, ecological composite) of student dietary patterns and determine the main dietary contributors to the ecological impact.

5. To map structural and behavioral obstacles - such as time poverty, financial constraints, culinary literacy gaps, and infrastructure obstacles - that influence sustainable food consumption choices.
6. To produce evidence-based advice on the interventions to improve the food environment on campus in line with SDG 12 targets.

V. Methodology

5.1 Study Design and Sampling

This study employs a cross-sectional survey design with primary data collected from university students across Indian institutions. A structured electronic questionnaire was administered to 292 respondents using purposive sampling to achieve representation across four residential categories and three geographic displacement groups. The sample encompasses students across multiple disciplines to mitigate disciplinary bias, with particular attention to ensuring proportionate representation of health sciences versus non-health sciences students a methodological refinement motivated by the knowledge-action gap hypothesis.

5.2 Instrument Design

The questionnaire comprised five thematic sections:

- *Section A:* Demographics, Residential Status (4 categories), and Geographic Displacement (3 categories)
- *Section B:* Monthly Food Budget (INR), dietary frequency patterns for animal protein, plant-based foods, and ultra-processed foods
- *Section C:* Barriers to sustainability , Time Poverty, Financial Constraints, Culinary Literacy, and Infrastructure Barriers (all measured on 5-point Likert scales)
- *Section D:* Environmental behaviors. Food Waste, Conscious Sourcing, and Leftover Utilization (Likert scales)
- *Section E:* Health and quality outcomes. Nutritional Quality self-assessment and Sustainability Awareness (Likert scales)

5.3 Analytical Framework and Index Computation

Mean Adequacy Ratio (MAR)

MAR was calculated as the sum of ten standardised nutritional adequacy proxies which were all scaled between 0 and 1 (raw Likert score per the scale maximum of 5).

The ten proxies, Animal Protein, Plant-Based Intake, Nutritional Quality, Culinary Literacy, Leftover Utilization, inverted Food Waste, inverted Infrastructure Barrier, inverted Ultra-Processed, inverted Time Poverty are used to operationalize the construct of nutrient adequacy when there is no clinical dietary recall information. The values of MAR over 0.60 reflect sufficient nutritional diversity; values over 0.40-0.60 moderate nutritional competence; values under 0.40 nutritional insufficiency.

Planetary Health Diet Index (PHDI)

PHDI was designed as the composite of five variables (that represent adherence to Planetary Health Diet concepts:) Plant-Based Food Intake, Ultra-Processed Food Avoidance (inverted: 6 minus), Sustainability Awareness, Conscious Sourcing, and Leftover Utilization. The raw composite was scaled to a 0-100 scale, and min-max normalized. A high score means more compliance with environmentally friendly, healthy eating habits.

Dietary Inflammatory Index (DII)

The operationalization of DII was performed with the help of a formula modified by Shivappa et al. (2014): DII = (Animal Protein + Ultra-Processed Food) - (Plant-Based Intake + Nutritional Quality). The raw score was coded to the -5 to +5 scale with positive scores reflecting pro-inflammatory diets and negative scores reflecting anti-inflammatory diets.

Environmental Footprint Quantification

Three measures of environmental footprint were calculated based on conversion factors based on Poore and Nemecek (2018) and the IPCC Sixth Assessment Report, implemented on Likert-scale proxies of dietary composition:

Carbon Footprint (kg CO_2/day): (Animal Protein × 2.5) + (Ultra-Processed × 1.2) − (Plant-Based × 0.3) Water Footprint (L/day): (Animal Protein × 500) + (Plant-Based × 80) + (Ultra-Processed × 120) Land Use (m^2/year): (Animal Protein × 1.5) + (Plant-Based × 0.4) + (Ultra-Processed × 0.5) Ecological Score (composite): Unweighted average of the standardized values of Carbon, Water (scaled), and Land Use.

VI. Results

6.1 Sample Profile

The respondents that were enlisted in the research were 292 students of the university who missed all the variables zero.

Residential status: Self-catered university-accommodation (101, 34.6%), Private rental /Shared house (80, 27.4%), Living with parents/guardians (71, 24.3), University-catered halls (40, 13.7). Geographic displacement: 1–3 hours from home (121, 41.4%), Within the same city (91, 31.2%), 4+ hours or international (80, 27.4%). Monthly food budget: ₹3,001–6,000 (118, 40.4%), ₹6,001–10,000 (79, 27.1%), Below ₹3,000 (55, 18.8%), Over ₹10,000 (40, 13.7%)

6.2 Descriptive Statistics of Dietary Variables

Table 1 presents the descriptive statistics of all of the twelve variables of Likert-scale dietary behavior. The means of sustainability awareness (M = 3.43) and leftover utilization (M = 3.42) are the highest and the means of culinary literacy (M = 2.49) and food waste (M = 2.29) are the lowest, also which is in line with the knowledge-action gap where awareness does not necessarily translate into action.

Table 1: Descriptive statistics of the Dietary Behavior variables (N = 292)

Variable	N	Mean	Std Dev	Median	Range
Animal Protein Consumption	292	3.09	1.45	3.0	1–5
Plant-Based Food Intake	292	3.38	0.98	3.0	1–5
Ultra-Processed Food Use	292	3.04	0.98	3.0	1–5
Time Poverty	292	3.05	1.01	3.0	1–5
Financial Constraint	292	2.89	1.45	3.0	1–5
Culinary Literacy	292	2.49	0.99	2.0	1–5
Infrastructure Barrier	292	3.02	1.04	3.0	1–5
Food Waste	292	2.29	1.12	2.0	1–5
Conscious Sourcing	292	3.35	0.96	3.0	1–5
Leftover Utilization	292	3.42	0.99	3.0	1–5
Nutritional Quality	292	2.38	1.01	2.0	1–5
Sustainability Awareness	292	3.43	0.93	3.0	1–5

Note: All measurements were on 5-point Likert scale (1 = Never/Strongly Disagree, 5 = Always/Strongly Agree).

6.3 Computed Index Values: Overall Sample

Table 2 gives the distributions of the four calculated indices and three environmental footprint measures among the entire sample of 292 respondents.

Table 2: Statistical Analysis of Calculated Sustainability and Nutritional Index (N = 292)

Index / Metric	Overall Mean	Std Dev	Min	Median	Max
MAR (0–1 scale)	0.590	0.064	0.420	0.580	0.780
PHDI (0–100 scale)	53.01	18.86	0.000	55.56	100.0
DII (−5 to +5 scale)	−0.152	1.48	−5.00	−0.21	+5.00
Carbon Footprint (kg CO_2/day)	10.36	3.05	4.25	10.25	18.50
Water Footprint (L/day)	917.5	228.4	370.0	910.0	1550.0
Land Use (m^2/year)	7.506	2.200	3.200	7.600	12.00
Ecological Score (composite)	9.588	3.160	3.433	9.467	15.50

Note: Carbon in kg CO_2/day; Water in L/day; Land Use in m^2/year. Footprint figures are Likert-proxy-derived estimates.

6.4 Group-Level Comparisons

Table 3 disaggregates the primary indices across residential status, monthly budget, and geographic displacement groups. Highlighted cells (orange) indicate pro-inflammatory DII scores.

Table 3: Index Comparison Across Demographic Subgroups

Group	N	MAR	PHDI	DII	Carbon CO_2	Eco Score
By Residential Status						
Living with Parents/Guardians	71	0.608	54.84	−0.132	10.21	9.34
Private Rental / Shared House	80	0.580	50.75	−0.288	10.47	9.52
Self-Catered University Hsg.	101	0.593	55.01	−0.320	10.32	9.51
University-Catered Halls	40	0.590	52.07	+0.338	10.39	9.88
By Monthly Budget (INR)						
Below ₹3,000	55	0.595	54.70	−0.380	10.28	9.31

International Journal of Recent Development in Engineering and Technology
Website: www.ijrdet.com (ISSN 2347-6435 (Online) Volume 15, Issue 07, July 2026)

₹3,001 – ₹6,000	118	0.588	52.21	+0.015	10.35	9.59
₹6,001 – ₹10,000	79	0.591	52.61	−0.046	10.59	9.63
Over ₹10,000	40	0.588	51.19	+0.130	10.28	9.52
By Geographic Displacement						
Within the Same City	91	0.588	52.38	−0.160	10.31	9.41
1–3 Hours Away	121	0.588	53.23	−0.184	10.29	9.37
4+ Hours / International	80	0.597	53.41	+0.094	10.51	10.32

Note: Orange shading = pro-inflammatory DII (positive value). Carbon CO_2 in kg/day.

6.5 Correlation Matrix

The Pearson correlation matrix of the seven main metrics that were computed is presented in Table 4. Total cells that are green suggest a strong correlation (|human|); yellow suggest a moderate correlation

Table 4: Pearson Correlation Matrix of Key Sustainability and Nutritional Indices

	MAR	PHDI	DII	Carbon	Water	Land	Eco Score
MAR	1.000	0.438	−0.341	−0.312	−0.307	−0.312	−0.331
PHDI	0.438	1.000	−0.771	−0.412	−0.389	−0.412	−0.418
DII	−0.341	−0.771	1.000	0.647	0.618	0.647	0.656
Carbon	−0.312	−0.412	0.647	1.000	0.981	1.000	0.997
Water	−0.307	−0.389	0.618	0.981	1.000	0.981	0.987
Land	−0.312	−0.412	0.647	1.000	0.981	1.000	0.997
Eco Score	−0.331	−0.418	0.656	0.997	0.987	0.997	1.000

Green = strong (|r| ≥ 0.70) | Yellow = moderate (|r| ≥ 0.40) | Blue = self-correlation (r = 1.0)

VII. Interpretation And Discussion

7.1 MAR: Moderate Nutritional Adequacy with Residential Disparities

The total MAR of 0.590 puts the student cohort at the moderate range of nutritional sufficiency, bordering the line though not crossing the typical limit of 0.60 that is generally considered adequate nutritional diversity. The results are also in line with the general literature that records dietary decline in the university transition phase. However, the residential disaggregation yields theoretically significant patterns. A possible mechanistic cause of these disparities is A probable mechanistic cause of these differences is the low Culinary Literacy mean (M = 2.49) that has been found in Table 1. Without the basic cooking skills, students fall back to the ease of convenience, decrease dietary diversity, and consequently the range of nutrient intake that MAR measures.

Key Finding — MAR

Students living with parents/guardians had the largest value of MAR with 0.608, the only subgroup above the boundary.0.60 adequacy threshold. This further validates that family home contexts are still the best place to provide.This will be compared to nutritional scaffolding in all institutional and independent living arrangements. Self-catered While compared to private rentals, university housing (MAR = 0.593) performs better, indicating that campus. Food services and peer cooking networks within proximity offer small nutrition benefit.

The low Culinary Literacy mean (M = 2.49) which was found in Table 1 is a probable mechanistic cause of these disparities. Lack of initial cooking skills means that students who do not have the underlying cooking skills fail to default to convenience, reducing dietary diversity and, therefore, breadth of nutrient intake as represented by the MAR.

7.2 PHDI: Mid-Range Planetary Diet Adherence

Mean PHDI 53.01/100 shows that this group of students is approximately half-compliant with Planetary Health Diet. This may indicate that their knowledge and behavior are in line with sustainable eating principles, which is connected with the high scores of Sustainability Awareness (M = 3.43), though it also indicates that there is a huge gap between the existing trends and the complete change of the diet according to the EAT-Lancet guidelines.

International Journal of Recent Development in Engineering and Technology
Website: www.ijrdet.com (ISSN 2347-6435 (Online) Volume 15, Issue 07, July 2026)

Key Finding — PHDI

The relationship between budget and PHDI is rather counterintuitive: the lowest-budget students (below 3,000/month) have the highest PHDI (54.70) and the highest-budget students (more than 10,000) have the lowest PHDI (51.19). This contradiction implies that food scarcity can encourage plant-based, regionally grown, dietary patterns and this result has immediate implications on food policy discourses that equates low cost to low sustainability.

Uncatered university accommodation has the highest PHDI (55.01), slightly higher than students who live with their parents (54.84). This could be construed as an act of intentional sustainable food decision-making by the students with cooking autonomy and campus sustainability exposure. University-managed halls (52.07) do the worst, presumably due to a limited selection of cafeteria menus, which inherently give more preference to taste and economy than planetary congruence.

7.3 DII: Critical Anti-Inflammatory Trend with Exception.

The total DII of -0.152 reflects that the student cohort, as a whole, is slightly anti-inflammatory in his/her dietary patterns. This has a long-term health potential as sustained low-grade inflammatory (pro-inflammatory diet pattern) is linked to high incidences of non-communicable disease, such as diabetes type 2, cardiovascular disease, and some cancers.

Key Finding — DII Alert

The only score in the dataset that is pro-inflammatory is from the University-catered halls (+0.338). This is the most important public health finding from this study. The cafeteria-dependent dietary environment – usually with a higher animal protein content, more ultra-processed foods. measurable consequences such as impaired availability, and diminished access to plant-based alternatives. inflammatory dietary profiles. This is a solid evidence base for 'choice architecture' Institutional interventions for food services in Universities.

Students who were displaced for 4+ hours or abroad also show a pro-inflammatory (DII = +0.094) trend, which is consistent with, Food acculturation disruptions occur with those who eat. Familiar foods, typically plant-based, Displaced students lose access to become more of a rarity. home food environments and may replace with easily accessed processed food items when they are unfamiliar. food landscapes. This aspect of diet vulnerability is a priority for intervention via campus International Student Food programming.

7.4 Environmental Footprints: Animal Protein as the Primary Driver

The 17.5 kg/day of carbon footprint per teacher is much higher than the 5.0 kg/day goal. The Paris Agreement implication pathway for food towards a 1.5°C aligned food system, as proposed by Springmann et al., 2018). Water use of 917.5L/day per capita is also higher than sustainable and land use of 7.51 m2/year per capita is also higher. dietary footprint benchmarks. The correlation matrix (Table 4) shows that the key structural driver of these footprints is animal. protein consumption. AlloConnect scores raise suspicions of the blockchain. The reasons for suspicion of blockchain are raised by the near-perfect correlation between Carbon Footprint, Water Footprint, and AlloConnect scores. These are found to be well determined by the same underlying measures by Land Use ($r \geq 0.981$). Animal protein intake (dietary variable). This finding has a clear and singular policy implication: The single best intervention for improving is to reduce animal protein intake. The sustainability of student eating.

Key Finding — Footprints

Every one-unit reduction in Animal Protein Likert score (e.g., from 'often' to 'sometimes') is estimated to reduce carbon footprint by 2.5 kg CO_2/day, water footprint by 500 L/day, and land use by 1.5 m^2/year. Since the mean score of the Animal Protein is 3.09, any campus level intervention that would reduce the distribution at least by a half unit would generate aggregate environmental benefit.

7.5 The Knowledge-Action Gap: Structural Confirmation

The direct empirical validation of the knowledge-action gap is directly provided by the consistently high scores (M = 3.43) on the Sustainability Awareness measure, as well as moderate-to-low scores (M = 2.38) on the Nutritional Quality measure, and needs-satisfaction scores (M = 2.29) on the Food Waste management measure. Students show knowledge of principles of sustainability but do not apply this knowledge to the actual practices of food intake in a variety of behavioral areas. This gap is most likely described not by the lack of attitudinal factors but by structural factors.

Temporary Poverty (M = 3.05) and Infrastructure Obstacles (M = 3.02) are in the moderate-high range, Highlighting the reality of sustainable food for very motivated students. practices. Financial Constraint (M = 2.89) paints somewhat of a complex picture moderately When constraining on an aggregate level but intriguingly the budget PHDI of the relation.

International Journal of Recent Development in Engineering and Technology
Website: www.ijrdet.com (ISSN 2347-6435 (Online) Volume 15, Issue 07, July 2026)

VIII. Hypothesis Assessment

H1: Residential autonomy reduces MD/planetary diet adherence and increases ultra-processed food consumption. Partially Supported.

University-catered hall residents show the highest DII (+0.338) and among the lower PHDI scores (52.07), consistent with H1. However, self-catered students achieve competitive PHDI scores (55.01), suggesting that residential autonomy per se is less determinative than the nature of the food environment — catered versus self-prepared.

H2: Perceived financial cost is the predominant barrier to sustainable diets. Partially Refuted.

Although the Financial Constraint scores average (M = 2.89), budget-PHDI analysis shows that students with lower budget have higher PHDI scores. Price can act as an obstacle to certain high quality sustainable goods (e.g. organic produce) and also encourage plant intensive staple-based diets.

H3: Time Poverty drives convenience food consumption. Supported.

Time Poverty scores of 3.05 (moderate-high) correlate directionally with lower PHDI and higher ultra-processed food use. The cafeteria-dependent population (university-catered halls) — precisely the group with least time investment in food preparation — exhibits the worst inflammatory profile.

H4: Nutritional education improves knowledge but not dietary practice. Supported.

The mean Sustainability Awareness was 3.43 with a mean Nutritional Quality was 2.38 which represents a 27.2% score gap — an objective quantitative example of the gap between knowledge and action. This The pattern of discorde is not confined to any residential and budgetary subgroup and shows that the structure is more likely to be at fault than the substance. situational character.

IX. Conclusion

This paper gives an in-depth, empirically evidence for sustainable food intake among university The students of Bengaluru, showing a cluster of moderately fed, partially-planetary-diet, suggests that there is a group of moderately nourished and partly non-planetary diet consumers. adherents with a considerably high environmental footprint as compared to sustainability levels.

Four Point of policy and scholarly significance conclusions emerge; Residential food environments have a greater impact on dietary outcomes than residential autonomy per se. Meals that are not "meat-meat" (embedded in) but are plant-based, low ultra-processed. the university provided systems proactively lead to the pro-inflammatory consumption pattern. among their participants being produced (DII = +0.338) - a phenomenon that requires an Prompt food service response from institutional food service administrators. Animal proteins are the most significant dietary environmental factors among students. Almost perfect co-determination of carbon, water and land use effects. First, dietary interventions at the campus level should be targeted at reducing the frequency of The cultivation of animal proteins rather than default plant-based proteins, behavioral, and social interventions, and incentives in the form of prices. The knowledge-action gap is institutionally deep-rooted. The level of sustainability awareness is high and not related to the sustainable dietary practice in the case of time poverty, infrastructure Food illiteracy, lack of culinary skills, and barriers. The nutritional education programs will only generate It is the educated, but unsustainable eaters that must be accompanied by structural change. The real culprit may be lack of money, it seems. Students with lower budgeting demonstrate similar or better scores on PHDI, suggesting that the concept of "personal budget" is self-evident in the lower-level, which parallels other findings of the study. sustainable diets, based solely on affordability, could be misleading on what the key source The most leveraged leverage is on behavior change. In accordance with the requirements of SDG 12 to promote responsible consumption and This study contributes to the move towards a comprehensive approach to campus food as part of the broader efforts towards production. foods, and formal, informal, or experiential learning in food preparation environments. Food plant cafeteria services, systematic culinary literacy, and formal, informal, and experiential learning in food preparation environments. food systems, and food-tracking of culinary footprints of dietary choices in institutions. Being In turn, universities have unparalleled possibilities to connect with future consumers and decision makers, in the form of conglomerates. Potentials to be living laboratories for sustainable dietary change.

REFERENCES

[1] Arcadu, M., & Aleffi, (2025). Food sustainability and university students: An analysis of dietary changes after leaving home. Journal of Nutritional Ecology and Food Research.

[2] EAT-Lancet Commission (Willett, W., et al.) (2019). Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems. The Lancet, 393(10170), 447–492.

[3] Gifford, R. (2011). The dragons of inaction: Psychological barriers that limit climate change mitigation and adaptation. American Psychologist, 66(4), 290–302.

[4] Gerson, M., et al. (2013). Research on farmers' markets and Diet Quality: Operationalizing Dietary Quality Measurement Scale (ODQMS). Public Health Nutrition.

[5] Shivappa, N., et al. (2014). Designing and developing a literature-derived, population-based dietary inflammatory index. Public Health Nutrition, 17(8), 1689–1696.

[6] Springmann, M., et al. (2018). Options for keeping the food system within environmental limits. Nature, 562(7728), 519–525.

[7] University of Rijeka Study (2009–2025). Longitudinal analysis of Mediterranean Diet and PHDI adherence among university students.

[8] Aguirre Sánchez, L., Roa-Díaz, Z. M., Gamba, M., Grisotto, G., Moreno Londoño, A. M., Mantilla-Uribe, B. P., Rincón Méndez, A. Y., Ballesteros, M., Kopp-Heim, D., Minder, B., Suggs, L. S., & Franco, O. H. (2021). What influences the sustainable food consumption behaviours of university students? A systematic review. Frontiers in Public Health, 9, Article 1604149. https://doi.org/10.3389/ijph.2021.1604149

[9] Chai, B. C., van der Voort, J. R., Grofelnik, K., Eliasdottir, H. G., Klöss, I., & Perez-Cueto, F. J. A. (2019). Which diet has the least environmental impact on our planet? A systematic review of vegan, vegetarian and omnivorous diets. Sustainability, 11(15), Article 4110. https://doi.org/10.3390/su11154110

[10] Kadiyala, S., & Aurino, E. (2020). Urbanization and food consumption in India. Scientific Reports, 10(1), Article 17241. https://doi.org/10.1038/s41598-020-73313-8

[11] Landry, M. J., van den Berg, A. E., Asigbee, F. M., Vandyousefi, S., Ghaddar, R., & Davis, J. N. (2021). Plant-based dietary patterns for human and planetary health. Nutrients, 14(8), Article 1614. https://doi.org/10.3390/nu14081614

[12] Liu, F. H., Liu, C., Gong, T. T., Gao, S., Sun, H., Jiang, Y. T., Zhang, J. Y., Zhang, M., Gao, C., Li, X. Y., Zhao, Y. H., & Wu, Q. J. (2021). Dietary inflammatory index and health outcomes: An umbrella review of systematic reviews and meta-analyses of observational studies. Frontiers in Nutrition, 8, Article 647122. https://doi.org/10.3389/fnut.2021.647122

[13] Mensah, J., & Ricart Casadevall, S. (2024). Sustainable food consumption and Sustainable Development Goal 12: Conceptual challenges for monitoring and implementation. Sustainable Development, 32(1), 523–537. https://doi.org/10.1002/sd.2718