

MacArthur Foundation

# Greener Palates in Urban India

# The potential for behaviour change and low carbon food choices

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# **Table of Contents**

Executive Summary	3
Section 01: The Project	4
Food Consumption – The Indian Context	5
Choice and Food Consumption	6
Project Methodology	7
Section 02: Insights from Fieldwork	9
Barriers	9
Facilitators	12
Section 03: Recommendations and Interventions	15
Enable	15
Encourage	15
Exemplify	16
Engage	16
Towards Low Carbon Food Consumption Choices	17
References	19

## **Executive Summary**

Amidst rapid urbanisation and escalating incomes, India finds itself at the crossroads of a burgeoning crisis: soaring food consumption emissions. This trajectory is intimately tied to evolving dietary habits in urban landscapes, particularly in highincome strata, where lifestyles have a significant ecological impact. The heightened appetite for resource-intensive foods, including meats, dairy, and processed foods, underscores the need for strategic interventions in behaviour change towards low carbon food consumption. This study has identified five key behaviours leading to low carbon consumption: buying locally sourced food, adopting plant-based diets, buying seasonal food, choosing fresh food over processed food, and practising efficient food consumption.

In the diagnostic fieldwork, conducted in Delhi and Bengaluru, the study pinpointed the barriers and facilitators linked with these behaviours. This brief provides a concise overview of the primary behavioural barriers and facilitators associated with each identified behaviour for low carbon food consumption, and suggests behavioural interventions and policy recommendations aimed at addressing these factors.

# **Section 01: The Project**

Food systems contribute substantially to global greenhouse gas (GHG) emissions, ranging from 22% to 37% of anthropogenic emissions<sup>1</sup>, which totals 10.8–18.1 gigaton (Gt) carbon dioxide equivalent (CO2eq) annually (Crippa et al., 2021). A comprehensive lifecycle analysis of these systems indicates that they are responsible for approximately 30% of global energy consumption (IRENA & FAO, 2021). Further, the global volume of food wastage is estimated to be 1.6 Gt of primary product equivalents (Munesue et al., 2015). The carbon footprint of food produced and not eaten works out to 3.3 Gt of CO2eq (estimated) without accounting for GHG emissions from land use change.

Food consumption is therefore a critical area for emissions reduction. While food habits of all income groups contribute to the carbon footprint of food consumption, high-income households account for higher food-linked GHG emissions due to their purchasing power. It is important to concentrate on this category of households as they have a greater potential to reduce their carbon footprint by modifying their consumption patterns.

The Low Carbon Lifestyles Project at CSBC seeks to initiate behaviour change towards sustainable lifestyle choices, including low carbon consumption, in Indian cities. It aims to design interventions to redirect individual and household choices towards sustainable behaviours and technologies. The primary goal is to ensure that policy incorporates an understanding of the context of consumer choices and of local barriers to the uptake of low carbon consumption, essential to devise levers for higher adoption.

Within the framework of the Low Carbon Lifestyles Project, in this brief we home in on five low carbon food consumption behaviours with great potential for reducing GHG emissions: (I) buying locally sourced food; (II) adopting plant-based diets; (III) opting for seasonal produce; (IV) choosing fresh food over processed food; and (V) practising efficient food consumption. This diagnostic brief is based on fieldwork conducted in the Delhi National Capital Region (NCR) and Bengaluru. It serves as a comprehensive overview, shedding light on the barriers.

<sup>&</sup>lt;sup>1</sup> Anthropogenic emissions are human-caused releases of pollutants and greenhouse gases into the atmosphere, originating mainly from industrial processes, transportation, agriculture, and energy production

Project Objective:

A key objective of the Low Carbon Lifestyles Project is to advocate the adoption of low carbon consumption. It promotes a shift to sustainable and healthy food choices in high-income urban households in India.

- <u>Target Behaviour</u>: Shift in food consumption habits towards sustainable choices
- <u>Target Population</u>: High-income households in urban settings

## **Food Consumption – The Indian Context**

Agriculture in India accounts for 18% of GHG emissions and uses significant land and water. The embodied<sup>2</sup> GHG emissions of Indian diets identified range from 1.36 to 3.62 kg CO2eq/consumption unity (CU)/day. Dairy products contribute significantly to embodied emissions across diets, up to 3.21 kg CO2eq/CU/day (Athare et al., 2022). The higher footprints associated with Indian diets are mainly due to the consumption of animal-source foods and irrigated rice, wheat, and sugar crops. The household food waste estimate in India is 50 kg per capita per year, or 68,760,163 tonnes a year (UNEP, 2021).

As incomes rise and dietary patterns diversify, the environmental impact of food consumption is anticipated to intensify (Aleksandrowicz et al., 2019). A worrying trend has emerged among high-income households in India. The consumption of processed and packaged foods, along with an inclination towards imported products and out-of-season produce, is on the rise, which poses a broader environmental challenge that demands strategic interventions. Arresting this trajectory is imperative, and a key strategy involves advocating for the consumption of locally sourced and seasonal foods.

The Indian government has taken steps to promote sustainable and low carbon food consumption, with a focus on minimising food wastage, through various policies and initiatives. The Compulsory Food Waste Reduction Bill, introduced in 2018, requires supermarkets and food manufacturers to submit reports on food waste reduction targets and progress (Sinha & Tripathi, 2021). The government plans to reduce food wastage nationwide by linking major producing states with those experiencing high demand as well as the food processing industry. The Annadata Devo Bhava campaign creates awareness about the value of food and seeks to reduce food wastage (ICAR, 2022). Awareness campaigns like Mission Aahaar Kranti promote local, nutritious food and emphasise the value of food (PIB, 2021).

<sup>&</sup>lt;sup>2</sup> Embodied GHG emissions are the total CO2eq linked to a food product's entire lifecycle, spanning cultivation, processing, distribution, consumption, and disposal.

The Food Safety and Standards Authority of India (FSSAI) has launched various initiatives to reduce food waste and promote sustainable food consumption. Its Eat Right India campaign and the Vegan Food regulations promote traditional eating habits and set standards for plant-based products (Kaladharan et al., 2023). The Save Food, Share Food, Share Joy initiative aims to prevent food wastage and ensure surplus food reaches those in need. The Indian Food Sharing Alliance serves as a platform for stakeholders to receive support, food safety training, and capacity building efforts.

To minimise the impact of food consumption on the environment, India must specifically target the food consumption behaviours of high-income households. As the country's population grows and incomes rise, the implementation of low carbon food policies and initiatives becomes critical to promote public health and environmental sustainability.

## **Choice and Food Consumption**

Globally, literature highlights that there are several behavioural and structural factors shaping individual motivations in food choices. We discuss the factors below in terms of the five significant low carbon food consumption behaviours previously identified:

#### Behaviour I: Buying locally sourced food

Purchasing locally sourced food reduces GHG emissions by minimising the distance travelled from producer to consumer (Coley et al., 2009). This behaviour supports regional agriculture, diminishes the carbon footprint associated with transportation, and contributes to local economic development. Barriers to this choice include the limited availability and access to local sources in urban landscapes dominated by expansive supermarkets (Dunn et al., 2011). Combating this involves creating awareness through education campaigns, ensuring accessibility via farmers' markets, and fostering collaborations among local producers, retailers, and consumers (Bimbo et al., 2021; Shi & Hodges, 2016; Smaal, 2023).

#### Behaviour II: Adopting plant-based diets

Shifting to plant-based diets offers substantial environmental benefits, countering the resource-intensive nature of dairy and meat production and its exacerbation of GHG emissions (Lacour et al., 2018; Costa et al., 2023). Choosing plant-based alternatives reduces the carbon footprint linked to livestock farming and supports sustainable land use. Cultural norms and concerns about nutritional adequacy emerge as barriers, calling for improved information dissemination and availability of plant-based alternatives (Markowski & Roxburgh, 2019; Lea & Worsley, 2001; Faber et al., 2020; Estell et al., 2021).

#### Behaviour III: Buying seasonal food

Consuming seasonal and local food aligns with sustainable food systems, requiring fewer energy inputs and supporting local agriculture (Garnett, 2008). Barriers arise from conflicting year-round demand and limited availability in some regions (Reisch et al., 2013). Overcoming this involves consumer education, strategic promotion, and collaborative efforts between farmers, retailers, and community organisations (Alonso, 2010; Bogomolova et al., 2021; Schmidt et al., 2011).

#### Behaviour IV: Buying fresh food over processed food

Opting for fresh food over processed alternatives counters environmental degradation and excessive packaging waste (Fardet & Rock, 2020). Perceived convenience, affordability of processed food, and engineered taste preferences (because of the addictive properties of processed food) act as barriers. Addressing this involves increasing awareness, ensuring the availability of fresh options, and promoting home cooking through various initiatives (Almeida et al., 2018; Drewnowski & Monsivais, 2020; Lustig, 2020; Monteiro et al., 2010; Story et al., 2008; Privitera & Abushena, 2019).

#### Behaviour 5: Practising efficient food consumption

This minimises over-purchasing, enhances food storage management, and encourages effective utilisation of leftovers. Efficient food consumption faces hurdles rooted in pervasive unawareness of food waste's environmental impact (Stefan et al., 2013). Consumer habits such as convenience-driven behaviour and ingrained habits amplify food waste, and concerns about safety and quality trigger premature discarding (Pinto et al., 2018; Aschemann-Witzel et al., 2022). Overcoming these barriers demands targeted education and interventions addressing entrenched habits and perception nuances. Encouraging meal planning and portion control fosters mindful eating behaviours (Jia et al., 2022). Clear and informative food labelling, including expiration dates and portion sizes (Peters-Texeira & Badrie, 2005), equips consumers to make informed choices. Such efforts instil a conscientious and informed approach to food consumption, aligning with broader sustainability goals.

## **Project Methodology**

While these has been some behavioural research on segregation of waste at the household level in Indian cities, deeper investigation is required. This study comprehensively explores the behavioural and policy barriers that limit the adoption of waste segregation in urban India, and the facilitators that enable it. The project team designed a robust methodology to understand the barriers and facilitators related to waste segregation and thus design interventions to promote adoption.

• First, a detailed literature review was conducted to identify national- and statelevel policies and incentives for building a sustainable waste management ecosystem in Indian cities.

- This was supplemented by a stakeholder mapping to understand the diverse actors involved in implementation.
- Next, the team carried out diagnostic fieldwork, designing and conducting interviews with 21 participants, including households and waste collectors.
  - The study spanned both high-income and middle-income categories of households, including standalone houses in affluent and middle-income neighbourhoods in Indore and the southern part of Delhi. Indore's high waste segregation and effective enforcement provide a model for successful waste management, while the challenges in the southern part of Delhi offer insights into scaling up source segregation interventions amidst supply-side barriers, contributing diverse perspectives to the study.
  - The team ensured gender and age diversity within the sample.
- We then consolidated and analysed the insights from fieldwork to identify behavioural and structural barriers to and facilitators for waste segregation in households.
- This was followed by ideation workshops to identify interventions to improve adoption.

# Section 02: Insights from Fieldwork

Whether or not an individual consumer adopts a given sustainable behaviour depends on two sets of factors: (1) Demand side factors -- The preferences, needs, and beliefs of the individual can make her/him more likely to adopt that behaviour (such factors are demand-side facilitators of sustainable behaviour), or less likely to adopt the behaviour (demand-side barriers) and (2). Supply-side factors: The availability and accessibility of infrastructure and/or services at the systemic level make an individual more likely (supply-side facilitators) or less likely (supply-side barriers) to adopt the behaviour.

Through the fieldwork, we comprehensively identified both the barriers and facilitators associated with the five low carbon food consumption behaviours singled out by the study as particularly relevant for urban Indian households.

## **Barriers To:**

Behaviour I: Buying locally sourced food:

The identified barriers to buying locally sourced food encompass various aspects of consumer behaviour and perception.

- 1. *Preference for specific food items:* Some respondents demonstrated a distinct preference for dry fruits over locally grown vegetables, citing perceived health benefits as the driving factor behind this choice.
- 2. *Confusion regarding terminology:* Respondents frequently exhibited confusion when differentiating between local food and hybrid varieties, as well as local food and the local cuisine served in restaurants. This highlights a crucial need for clarity in terminology to facilitate informed decision-making.
- 3. *Lack of knowledge about local vegetables:* A significant barrier emerged from respondents' lack of understanding about which vegetables are considered local. This knowledge gap impedes their ability to make informed choices in favour of low carbon options.

#### Behaviour II: Adopting plant-based diets:

The challenges in adopting plant-based diets are rooted in perceptions and strong dietary preferences.

- 4. *Perceived benefits of meat:* Respondents strongly believe in the benefits of meat consumption, including better taste, a diverse range of options, and a more unique sensory experience. They therefore resist considering plant-based alternatives, fearing a compromise in taste, variety, nutritional satisfaction, and culinary experience.
- 5. *Protein content and nutritional value of non-vegetarian food:* The prevailing belief among respondents that non-vegetarian food, particularly meat, has higher protein content and greater nutritional value creates a

barrier rooted in nutritional misconceptions. The perception of meat as a superior source of essential nutrients leads to hesitancy in adopting plantbased diets, with individuals expressing concerns about meeting their nutritional needs without meat.

6. *Familiarity with non-vegetarian dishes and social conditioning:* Deeply ingrained culinary habits and the social significance attached to meat-centric meals act as barriers to plant-based foods. The familiarity associated with non-vegetarian choices creates a sense of comfort and satisfaction, making it challenging for respondents to embrace a shift towards plant-based alternatives, even on a periodic basis.

#### Behaviour III: Buying seasonal food:

The challenges in buying seasonal food reflect a mix of consumer perceptions and the easy availability of produce.

- 7. Lack of knowledge about seasonal food: Some respondents confused the concept of 'seasonal' food with festive snacks traditionally consumed during holidays or special occasions, such as sweets or holiday treats. This confusion among respondents hampers their understanding of what truly constitutes seasonal produce, leading to misconceptions about the availability and benefits of such foods.
- 8. Year-round availability of fruits and vegetables: The continuous availability of fruits and vegetables throughout the year emerged as a substantial barrier. With a plethora of produce accessible year-round, respondents found it more convenient to choose any item at any time, irrespective of its seasonal nature. This abundance has disrupted the understanding of the traditional association between specific fruits and vegetables and their natural growing seasons, making it challenging to perceive the benefits of consuming food that is seasonally produced.

#### Behaviour IV: Buying fresh food over processed food:

The dynamics of convenience, cost, and personal preferences guide consumer decisions, often standing as a barrier to choosing fresh food over processed.

- 9. *Promotional schemes and discounts:* We found that respondents were attracted to promotional schemes and discounts associated with packaged or processed food. The affordability offered by these incentives emerged as a crucial factor, often steering the respondents away from fresh alternatives as they prioritised cost savings.
- 10. *Convenience of food delivery services:* The convenience provided by food delivery platforms emerged a significant influencer. Respondents expressed a preference for processed or packaged food due to the ease of ordering and receiving these items at their doorstep through delivery services, contributing to the continued reliance on processed options. This convenience barrier ties

in with a significant lack of awareness or concern about the environmental impact of packaging waste.

- 11. Lower cost of packaged or processed food: We found that there is a prevailing perception among respondents that processed foods are more economically viable compared to fresh options because of their longer shelf life. This perception shaped their purchasing decisions, leading them to choose processed alternatives over fresh produce based on perceived affordability.
- 12. *Preference for certain packaged food:* The popularity of specific packaged items, such as instant noodles, especially among children, played an important part in the decision-making. Respondents' preference for these convenience foods contributed to a general reliance on processed options, impacting overall dietary choices.
- 13. Convenience and time constraints: Respondents viewed processed food as time-saving and convenient, particularly when faced with busy schedules. The need for quick and hassle-free meal options feeds into an ongoing preference for processed foods, limiting the integration of fresh and locally sourced alternatives into individuals' daily routines.

#### <u>Behaviour V: Practising efficient food consumption:</u>

The observations from respondents reveal a range of barriers rooted in planning, awareness, and interpersonal dynamics:

- 14. *Lack of planning and portion control:* Some respondents noted that their lack of proper planning and portion control led to food wastage. The absence of strategic meal planning contributed to an inadvertent generation of excess food, resulting in wastage.
- 15. Acceptance of small food wastage: Respondents mentioned an acceptance of small amounts of food wastage as inevitable or insignificant. This often hindered their efforts to minimise waste, as they downplayed the impact of small losses.
- 16. *Lack of awareness or concern:* A segment of respondents said they do not pay attention to the issue of food waste or do not perceive a need to think about it. This lack of awareness or concern poses a barrier to cultivating mindful and waste-reducing consumption habits.
- 17. Wasted cooked food: Cooked food is identified by respondents as being more prone to wastage compared to uncooked items. This observation underscores the challenges associated with managing perishable cooked meals and minimising leftover waste.
- 18. *Disagreement on storage and disposal:* We found there were differences of opinion among respondents' and their family members on how long food should be stored and when it should be thrown away. This disagreement added a layer of complexity to waste reduction efforts.

19. *Communication and compliance issues:* Respondents expressed frustration about family members ignoring suggestions about cooking only the required quantity of food. Communication and compliance issues within households emerged as barriers, impacting the successful implementation of conscious buying practices and waste reduction strategies.

## **Facilitators For:**

#### Behaviour I: Buying locally sourced food:

These facilitators reflect the cultural and habitual aspects that contribute to support for locally produced goods.

- 1. *Perceived nutritional value and quality:* Respondents expressed beliefs that locally produced goods offer higher nutritional value and better quality compared to online products. This perception contributes to a positive attitude towards buying locally, emphasising the health benefits of regionally sourced foods.
- 2. *Freshness and availability:* Local markets are perceived as a reliable source of fresh produce, contributing to the overall perception of better quality. The availability of fresh, locally sourced items encouraged respondents to opt for these options over others, aligning with their preference for high-quality and fresh ingredients.
- 3. *Health and purity:* A prevailing belief among respondents is that local foods are safer and of better quality than packed and processed alternatives, with a lower risk of causing illness. This perception of health benefits and purity of locally sourced products enhances their appeal.
- 4. *Habitual consumption of local millets:* Some respondents mentioned consistent habits of consuming local millets, such as finger millets (ragi), due to established dietary practices that are regionally and culturally ingrained. This cultural continuity serves as a facilitator for locally sourced millets among certain respondents.

#### Behaviour II: Adopting plant-based diets:

A growing awareness of the importance of the natural environment and its interconnectedness with personal well-being is contributing to plant-based diet adoption.

- 5. *Environmental awareness:* A notable facilitator is a heightened environmental consciousness among respondents. Understanding the environmental impact of meat consumption featured as a motivational factor for many respondents, driving them to opt for plant-based diets as a sustainable choice aligned with ecological considerations.
- 6. *Health benefits of vegetarian food:* Respondents spoke of health benefits associated with vegetarian food, perceiving it as a source of balanced nutrition that is easily digestible and capable of meeting their nutritional

needs. This health-centric perspective motivates individuals to prioritise plant-based diets for overall well-being.

7. *Perception of equal protein sources in vegetarian food:* There is an awareness among respondents that proteins can be obtained from vegetarian sources such as milk and vegetables. This perception of protein availability in plant-based diets, affirming the nutritional adequacy of vegetarian alternatives, facilitates their adoption.

#### Behaviour III: Buying seasonal food:

The facilitators for buying seasonal food range around the interconnected aspects of tradition, health, taste, and quality in individuals' decisions.

- 8. *Cultural and traditional beliefs:* A significant facilitator is the influence of cultural and traditional beliefs. Some respondents subscribed to the notion that certain fruits should only be consumed seasonally, driven by traditional wisdom passed down through generations. This cultural connection acts as a guiding principle in their seasonal food choices.
- 9. *Perceived nutritional value:* We found that some of the respondents believe that seasonal items, notably millets, wheat, and locally produced food, carry higher nutritional value. This perception serves as a facilitator, encouraging respondents to prioritise seasonal produce for its perceived health benefits.
- 10. *Taste and experience:* The study uncovered a distinct preference among respondents for consuming seasonal fruits like watermelon and mangoes during their respective seasons. This preference is rooted in the enhanced taste and overall sensory experience associated with these fruits when enjoyed in their natural season, acting as a facilitator for seasonal food choices.
- 11. *Preference for fresh produce:* Respondents expressed a clear preference for not consuming fruits that have been stored for extended periods, indicating a desire for freshness. This inclination towards fresh produce serves as a facilitator for seasonal food, aligning with a broader preference for high-quality and recently harvested crops.

#### Behaviour IV: Buying fresh food over processed food:

These facilitators underscore an awareness of the drawbacks of processed food.

- 12. Concerns about chemical additives and preservatives: A strong facilitator for fresh alternatives is the concern about chemical additives and preservatives in processed food. Respondents expressed beliefs that processed items contain more chemicals, with potentially adverse health effects.
- 13. *Perception of low nutritional value:* We found that there is a widespread perception among respondents that packaged or processed food has lower nutritional value and higher calorie content. This perception prompts individuals to prioritise fresh, nutrient-rich options in their dietary choices.

- 14. *Distrust of food industry practices:* Some respondents expressed a sense of distrust of food industry practices, believing that companies add additives to make processed food more addictive. This scepticism contributes to the preference for fresh and minimally processed alternatives.
- 15. *Preference for fresh and home-cooked food:* Home-cooked food is viewed by respondents as fresher and more nutritious compared to processed options. The preference for the control and quality associated with home-cooked meals acts as a powerful facilitator for fresh food.
- 16. Health problems and taste concerns: Some respondents avoided processed food due to health problems, including gastric issues, and taste concerns. These personal experiences served as facilitators, influencing individuals to opt for fresh options to address health-related and taste-related considerations.

#### <u>Behaviour V: Practising efficient food consumption:</u>

These facilitators exemplify a broader societal shift towards responsible and considerate consumption, blending individual choices with a commitment to reducing environmental impact.

- 17. *Reusing leftover food:* A significant facilitator that emerged in the research is the practice of considering leftover food as valuable, with an emphasis on reusing it in the next meal cycle or repurposing it creatively. This approach minimises food wastage and encourages measured utilisation of resources.
- 18. Cooking according to family size: Respondents expressed a commitment to conscious buying and the practice of cooking the right amount of food tailored to their family size. This approach minimises wastage by aligning meal preparation with the actual consumption needs, promoting efficiency and a mindful utilisation of ingredients.
- 19. *Donating excess food:* Respondents highlighted donating excess food to the homeless or offering it to street animals. This practice served as a way to minimise food wastage while also contributing to social and environmental well-being.

# **Section 03: Recommendations and Interventions**

This study has uncovered key behavioural barriers and facilitators relating to the five low carbon food consumption behaviours identified as significant in the Indian context. Utilisation of these insights is critical for policy, enabling governments to employ a powerful set of levers to spur the adoption of low carbon food consumption, encompassing the five studied behaviours.

To activate the behavioural bridge to policy, this study employs the 4Es Model of the UK government's Department for Environment, Food and Rural Affairs (DEFRA), which aspires to enable, encourage, exemplify, and engage in moving individuals towards sustainable practices (Institute for Government, 2015). This model offers an approach to addressing behavioural and structural gaps in policy:

- 1. Enable focuses on providing the necessary infrastructure to make sustainable choices accessible and attractive.
- 2. Encourage delves into the realm of information dissemination and public awareness to motivate individuals.
- 3. Exemplify emphasises the importance of leading by example.
- 4. Engage encourages active participation and collaboration amongst stakeholders to influence policy.

Through a series of ideation workshops, this project identified six interventions that will promote the uptake of the five low carbon food consumption behaviours pinpointed by the study, organised below in the 4Es framework.

## Enable

Contextual and structural barriers must be addressed to enable people to opt for low carbon food consumption:

1. *Implement eco-friendly packaging for food and groceries:* Sustainable materials, such as biodegradable plastics or reusable containers, can replace traditional single-use plastic packaging for food and groceries, including delivery services. Transitioning to eco-friendly packaging addresses the prevalent lack of awareness or concern about packaging waste among Indian households. By reducing the reliance on single-use plastics, this intervention contributes to minimising the environmental impact of food consumption.

## Encourage

Reinforcing traditional policy tools, such as information provision, incentives, regulations, and communication campaigns, by bringing insights from behavioural research sharpens the efficacy of these tools in promoting healthier food choices. The project suggests the following behaviour change communication campaign:

2. *Provide accessible information about the advantages of seasonal foods:* Implement educational campaigns that communicate the nutritional and environmental advantages of consuming seasonal foods. By addressing misconceptions and enhancing people's knowledge of seasonal produce, this intervention can empower individuals and households to make informed and sustainable food choices.

## Exemplify

The actions of high-profile figures in society, ranging from influencers to entrepreneurs and government officials, send implicit messages to society about desirable behaviours. To trigger a shift to sustainable food consumption, the project suggests that aspirational figures lead the way:

3. *Initiate a norm shift campaign:* Develop a focused campaign that provides practical examples to guide individuals in replacing processed foods with fresh options, utilising influencers and social media to drive this shift in consumer behaviour. It can showcase real-life examples and success stories of individuals transitioning from processed to fresh food choices or a plant-based diet, especially well-known personalities. This intervention addresses habitual behavioural by utilising social norms and influential figures to foster a positive shift in food choices.

### Engage

Promoting low carbon consumption requires cooperation from diverse actors. The following interventions are multi-stakeholder recommendations that can incentivise sustainable food choices:

- 4. Highlight local, seasonal food options using apps: Collaborate with chefs and food-related apps to showcase and promote local and seasonal food choices. Leveraging digital platforms ensures persistent and accessible messaging about the benefits of sustainable food, contributing to a shift.
- 5. *Design local food menus that highlight sustainable options:* Restaurants and caterers can design menus that prominently feature locally sourced, seasonal, and nutritious food options. This addresses the barrier of the prevalent lack of knowledge about local vegetables and confusion about seasonal produce among Indian households. By making sustainable choices more visible and accessible, this intervention encourages consumers to opt for healthier and environmentally friendly food options.
- 6. Collaborate with local farmers and suppliers to make local and seasonal options easily accessible: Establish partnerships with local farmers and suppliers to ensure a steady supply and accessibility of local and seasonal produce. By enhancing accessibility, this intervention overcomes convenience

barriers. It facilitates a direct connection between consumers and local producers.

## **Towards Low Carbon Food Consumption Choices**

This diagnostic brief underscores the importance of behavioural considerations in the evolving urban lifestyles and dietary choices in India against the background of the deepening climate crisis. It specifically highlights the environmental consequences of dietary habits among high-income households. The novel contribution lies in exploring the challenges specific to high-income households and presenting targeted recommendations to enhance the adoption of low carbon food behaviours.

With the need to move towards sustainable practices becoming increasingly acute at this crossroads of climate change, this study's exploration of key behavioural barriers and facilitators in low carbon food consumption, along with its series of recommendations and interventions, can be leveraged across India, spurring a transformative shift in food consumption behaviour and towards a greener lifestyle.



FIGURE 1: SHOPPING LOCAL (Photo by Alex Hudson on Unsplash)

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