Sustainable Food Consumption in India: A Systematic Review

Vinus Dhawan¹, Tanya², Dr. Sanjay Bhayana³*

¹,²Phd Research Scholar, FBMED Department, National Institute of Food Technology Entrepreneurship and Management (An institute of national importance)
³HOD of FBMED Department, National Institute of Food Technology Entrepreneurship and Management (An institute of national importance) (corresponding author)

Abstract

Purpose: In order to thoroughly review and synthesise the available literature on sustainable food consumption practices in India, the research paper Sustainable Food Consumption in India: A Systematic Review was created. The purpose of the paper is to highlight significant developments, obstacles, and chances in relation to national food consumption, distribution, and production patterns that are sustainable. The study will assess the efficiency of various sustainable food initiatives, policies, and interventions in fostering environmental, social, and economic sustainability in the Indian food system using a systematic review method. The goal of this study is to help policymakers, entrepreneurs, and consumers create a more resilient and sustainable food system in India by analysing the present level of sustainable food consumption in that nation.

Results: The findings suggest the need for comprehensive policies, support for sustainable agriculture, promotion of local food systems, and collaborative efforts between stakeholders.

Conclusion: This research contributes to the understanding of sustainable food consumption in India. With this, sustainable food consumption in India can improve food security and the environment, according to the systematic study. This study provides the sources to help policymakers, academics, and stakeholders develop sustainable food consumption practices in India and a more resilient, ecologically friendly food system.

Keywords: Sustainable food consumption, Environmental Sustainability, Food Security, Sustainable Initiatives, Food Waste, Policymakers, Businesses, Policy recommendations

1) INTRODUCTION

The concept of sustainable food consumption has garnered considerable attention in contemporary times, owing to its capacity to tackle the environmental, social, and health-related issues that are linked to conventional food production and consumption practices (Hawken et al., 2017). The issue of sustainable food consumption has gained significant attention and has become a subject of extensive research in India, a nation with a burgeoning middle class and a population exceeding 1.3 billion (Dhawan & Chattopadhyay, 2019). The comprehension of consumer perceptions and behaviours concerning sustainable food consumption is of utmost importance in promoting environmentally friendly and socially responsible food choices.

1.1) Background of the Study

Climate change, resource depletion, and environmental deterioration have made sustainable food consumption a worldwide issue. India, the second-most populated nation, shapes food sustainability. Rapid urbanisation, changing diets, and intensified farming practices have caused environmental and food security challenges in the country. This systematic study examines India's sustainable food consumption, including diet, production, supply chain, policy, and consumer awareness. The study analyses relevant literature to help policymakers, researchers, and stakeholders develop sustainable food...
consumption practises in India that promote environmental conservation and food security (Pachauri et al., 2014; Kumar et al., 2017; Fanzo et al., 2018; National Sample Survey Office, 2019).

An illustration in figure 1.1a shows how information flows in the systematic study of food consumption in India is provided in the following diagram. Global issues such as climate change, resource depletion, and environmental degradation led to the emergence of sustainable food consumption as a worldwide issue. Considering India's large population, rapid urbanization, changing diets, and intensified farming practices, the diagram stresses the significance of India in shaping food sustainability.

This study examines a wide range of aspects of sustainable food consumption in India, including diet, production, supply chain, policy, and consumer awareness. In this study, significant findings are identified and recommendations are offered to policymakers, researchers, and stakeholders based on an analysis of relevant literature. Through the adoption of sustainable food consumption practices in India, the ultimate goal is to promote environmental conservation and food security.

**Methodology:** Reputable academic databases including PubMed, Scopus, Web of Science, and Google Scholar were searched as part of a systematic review. In order to find pertinent material published between 2010 and 2023, search terms such as "sustainable food consumption," "sustainable diets," "India," "food security," "food policy," and "environmental impact" were employed. Peer-reviewed publications, studies, and policy documents addressing sustainable food consumption in India were all eligible for inclusion. Methodology in table form is drawn below –

<table>
<thead>
<tr>
<th>Methodology</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature Search</td>
<td>Reputable academic databases (PubMed, Scopus, Web of Science, Google Scholar) were searched for relevant articles and reports.</td>
</tr>
<tr>
<td>Keywords</td>
<td>Keywords used: &quot;sustainable food consumption,&quot; &quot;sustainable diets,&quot; &quot;India,&quot; &quot;food security,&quot; &quot;food policy,&quot; &quot;environmental impact.&quot;</td>
</tr>
<tr>
<td>Inclusion Criteria</td>
<td>Peer-reviewed articles, reports, and policy documents addressing sustainable food consumption in India.</td>
</tr>
<tr>
<td>Timeframe</td>
<td>Literature published from 2010 to 2023 was considered.</td>
</tr>
<tr>
<td>Analytical Approach</td>
<td>A systematic review was conducted to analyze and synthesize the existing literature.</td>
</tr>
</tbody>
</table>
Data Collection and Analysis | Relevant studies were reviewed to extract information on sustainable food consumption practices in India.
---|---
Topics Covered | 1. Sustainable dietary patterns  
2. Sustainable production and supply chain practices  
3. Policy initiatives for sustainable food consumption  
4. Consumer awareness and behavior  
5. Challenges and opportunities.

### Table - 1.1a

- **Concept and Definition:** Sustainable food consumption in India has evolved as a multidimensional concept, encompassing a holistic approach to address the challenges of food security, environmental conservation, and social equity. It involves the promotion of dietary patterns that are not only nutritionally balanced but also consider the ecological footprint of food choices (Mishra et al., 2018). Sustainable food consumption emphasizes the adoption of plant-based diets, reduced food waste, and the integration of sustainable agricultural practices to ensure long-term food security while minimizing the ecological impact of food production and distribution (Kumar et al., 2019). Additionally, the concept extends to encompass social and ethical dimensions, emphasizing fair trade, responsible sourcing, and equitable access to food resources for vulnerable populations (Mishra et al., 2020).

Sustainable food consumption refers to the adoption of dietary practices and consumption patterns that balance the nutritional needs of the population with the conservation of natural resources and the reduction of negative environmental impacts throughout the food system. It encompasses various dimensions, including the promotion of plant-based diets, reducing food waste, supporting ecofriendly production methods, and fostering responsible consumer behavior (Neff et al., 2015). Sustainable food consumption aims to achieve long-term food security, protect biodiversity, mitigate climate change, and enhance the overall resilience and sustainability of the food supply chain (HLPE, 2014).

The concept of sustainable food consumption emphasizes the need to move away from conventional agricultural practices that often rely on intensive use of chemical inputs, contribute to deforestation, and result in high greenhouse gas emissions. Instead, it encourages the adoption of practices that promote biodiversity, soil health, water conservation, and animal welfare. Sustainable food consumption also takes into account the social and ethical dimensions of food production, such as fair trade, labor rights, and supporting local communities (Garnett, 2014).

Sustainable food consumption can be defined as the practice of making food choices and engaging in behaviours that minimize negative environmental, social, and economic impacts throughout the entire food system, from production to consumption (Vermeire & Verbeke, 2006).

- **Sustainable food consumption Trends:**

Within the context of sustainable development and environmental conservation, sustainable food consumption has emerged as an important issue. As global challenges such as climate change, food security, and resource scarcity continue to gain attention, researchers have increasingly explored sustainable food consumption practices as a means to mitigate environmental impacts and promote responsible consumption. In this study, we analyze the annual publication trends on sustainable food consumption and provide insights into the growth and interest in this field.
Figure 1.1 illustrates that over the past 25 years, the number of documents relating to sustainable food consumption has steadily increased. In the period from 1998 to 2023, there has been a significant increase in the number of documents produced annually. There were 78 publications in the year 2022, followed by 64 publications in 2021 and 44 publications in 2020. A few documents were published per year in the early years of the study period (1998-2000). Since 2010, however, there has been a substantial increase in scholarly publications on this subject, indicating a growing interest in sustainable food consumption research.

Sustainable food consumption is becoming increasingly important and relevant within the academic and scientific communities. As the number of documents has increased over time, sustainable food consumption has emerged as an important area of research. In addition to heightened environmental awareness, changing consumer preferences, and increased recognition of the importance of sustainable diets in mitigating climate change and promoting food system resilience, a variety of factors may have contributed to this trend.

We present in this study a comprehensive review of the trends and growth in sustainable food consumption research during the past 25 years. Based on the analysis, it appears that academic interest and publications on this topic have been steadily increasing. Research in this area is essential to inform policies, guide consumer behavior, and foster sustainable food practices that benefit both human well-being and the environment as sustainable food consumption continues to gain attention as a viable solution to global challenges.

Research Objectives:

- To evaluate India's sustainable food consumption practises, including dietary patterns, animal- and plant-based food consumption trends, and environmental implications.
- To study India's agriculture sector's sustainable production and supply chain practises, including eco-friendly farming, organic farming, agro ecology, and sustainable sourcing and distribution.
- To assess India's sustainable food policy efforts and programmes, highlighting successes, difficulties, and opportunities for improvement.
- To examine Indian consumers' sustainable food choices, including decision-making reasons and ways to improve sustainable practises.
Research Questions:
• What are the typical eating habits in India, and how do they support environmental protection and sustainable food production?
• In India's agricultural sector, what sustainable production and supply chain practices are being used, and how do they affect the overall sustainability of the food system?
• What programmes and policies are currently in place in India to encourage the consumption of sustainable foods, and what are the main obstacles to their implementation?
• What variables affect consumers' awareness and openness to sustainable food options in India, and how do they decide whether to change their eating habits?

Data selection criteria: This systematic review of sustainable food consumption in India used strict data selection criteria to include relevant and reputable literature. Peer-reviewed publications, reports, and policy documents from 2010–2023 were the main sources. Studies on sustainable food consumption practices, policies, and initiatives in India were prioritised. Articles were to include sustainable food consumption topics such as diet, production, supply chain, policy, and consumer behaviour. To assure source credibility, only PubMed, Scopus, Web of Science, and Google Scholar data were evaluated. Excluded were full-text or non-English studies. To understand India's sustainable food consumption now and in the future, the inclusion criteria included several research.

1.2) Significance of sustainable food consumption
The concept of sustainable food consumption revolves around the idea of making food choices that minimize negative impacts on the environment, support local communities, and promote human wellbeing (Vermeir & Verbeke, 2006). According to Smith and Johnson (2022), sustainable food consumption involves making choices that minimize environmental impacts while promoting social equity and economic viability. In their study, Brown et al. (2023) found that educating consumers about sustainable food consumption can lead to positive changes in purchasing behavior and reduced food waste.

For a variety of stakeholders and academic disciplines, the systematic review on sustainable food consumption in India is quite important. First and foremost, the review's conclusions will provide policymakers and government organisations with useful information that they can use to create programmes and policies that will advance the nation's use of sustainable food (Patel et al., 2019).

Understanding India's sustainable food consumption habits might help worldwide efforts to solve issues with food security and environmental conservation, as India has a significant impact on the sustainability of the world's food supply (FAO, 2019). A thorough analysis of the body of research on sustainable food consumption will also be helpful for academics and researchers in the fields of environmental science, agriculture, and public health, facilitating further study and the investigation of novel solutions (Ghosh et al., 2020).

Additionally, by examining consumer behaviour and awareness about sustainable food options, the evaluation can help firms and the food industry better understand customer demand and adapt to more environmentally friendly production and distribution methods (Rathi et al., 2021). In the end, this thorough study will help India develop a more resilient and sustainable food system, supporting global efforts to meet the Sustainable Development Goals (UN, 2021).

1.3) Key principles of sustainable food production and consumption:
• Diversity and Resilience: To increase resilience against environmental and climate-related concerns, promote biodiversity in agricultural systems and dietary choices (FAO, 2018; Lipinski et al., 2013).
Efficient Resource Use: To minimise waste and the environmental effect of food production, optimise the efficiency of all available resources, including water, energy, and land (Springmann et al., 2018; Hellweg & Canals, 2014).

Climate-Friendly Practices: Adopt sustainable land management practices and climatesmart farming practices to reduce greenhouse gas emissions (Garnett, 2019; Smith et al., 2014).

Local and Seasonal Foods: Foods that are locally obtained and in season should be consumed to cut down on emissions caused by transportation and to promote local economies (Gustavsson et al., 2011; Vermeulen et al., 2012).

Reduced Food Waste: Take action to minimise resource consumption and lessen food insecurity by reducing food loss and waste at all points in the food supply chain (Kummu et al., 2012; Lipinski et al., 2013).

Promoting Plant-Based Diets: To lessen the environmental impact of animal agriculture and to improve their health (Willett et al., 2019; Springmann et al., 2018).

Ethical and Fair Trade Practices: To promote farmers' and food system workers' sustainable lives, emphasise fair trade, ethical sourcing, and responsible consumption (Branca et al., 2019; Schipanski et al., 2016).

1.4) Practices of sustainable food production and consumption:

Agro ecology: Using natural pest control, crop rotation, and other agroecological practices to improve soil fertility, biodiversity, and lessen the need for chemical inputs (Gliessman, 2015; Altieri, 2018).

Organic farming: Organic farming is the practice of using non-synthetic pesticides and fertilisers, promoting the health of the soil, and placing a high priority on ecosystem protection (Lotter, 2019; Willer & Lernoud, 2019).

Permaculture: Designing food systems that replicate natural ecosystems, maximise resource utilisation, and encourage self-sufficiency using permaculture principles (Holmgren, 2002; Mollison, 2012).

Local and Sustainable Food Systems: Supporting and taking part in local and sustainable food systems, such as direct farm-to-table supply chains, community-supported agriculture (CSA), and farmers' markets (Feagan & Henderson, 2009; Hinrichs, 2003).

Reducing Food Waste: Optimising resource utilisation and reducing environmental consequences through reducing food waste at the production, distribution, retail, and consumer levels (FAO, 2011; Parfitt et al., 2010).

Plant-Based Diets: To lessen the environmental impact of food consumption, advocates are promoting the adoption of plant-based diets that prioritise fruits, vegetables, legumes, and whole grains (Sabaté et al., 2014; Willett et al., 2019).

Sustainable Seafood Consumption: Sustainable seafood consumption is the practice of selecting fish and shellfish from sustainably managed fisheries in order to preserve marine biodiversity and safeguard threatened species (Golden et al., 2016; Jacquet et al., 2010).

2) Consumer Choices Towards Sustainable Food Consumption

Factors influencing consumer perception of sustainable food consumption: Consumer perception of sustainable food is influenced by various factors. These factors can include individual characteristics, such as personal values, beliefs, and lifestyles, as well as external factors, such as socio-cultural norms and marketing communications (Vermeir & Verbeke, 2006). Additionally, factors like product attributes (e.g., organic certification, fair trade labels), environmental concerns, health considerations, and ethical considerations also play a role in shaping consumer perception of sustainable food (Biswas & Roy, 2018).

Consumer awareness and knowledge about sustainable food consumption: Consumer awareness and knowledge about sustainable food are crucial for making informed choices. The present study highlights the significance of consumer awareness regarding the environmental and social impacts
linked with diverse food choices. It is imperative for consumers to comprehend the practices and certifications that indicate sustainability in order to make informed decisions (Biswas & Roy, 2018). Lack of awareness and knowledge can hinder consumer engagement in sustainable food consumption. Therefore, education and information campaigns can play a vital role in enhancing consumer awareness and knowledge about sustainable food (Vermeir & Verbeke, 2006). Sustainable food consumption patterns are essential for mitigating climate change and protecting biodiversity, as highlighted by Thompson (2021) in his comprehensive review.

- **Attitudes and beliefs towards sustainable food consumption:** Attitudes and beliefs shape consumer behavior, including their choices related to sustainable food consumption. Positive attitudes towards sustainability, environmental protection, and social responsibility can drive consumers towards sustainable food choices (Biswas & Roy, 2018). Consumers who believe in the importance of sustainable food production and consumption are more likely to actively seek out sustainable options and make purchase decisions aligned with their beliefs (Vermeir & Verbeke, 2006). On the other hand, negative attitudes, scepticism, or lack of perceived benefits may hinder consumer adoption of sustainable food practices. In their survey, Lee et al. (2023) found that consumers who prioritize sustainable food consumption often base their choices on factors such as organic certification, fair trade, and animal welfare standards. Understanding the factors that influence consumer perception of sustainable food, their level of awareness and knowledge, as well as their attitudes and beliefs, is essential for designing effective interventions and communication strategies to promote sustainable food consumption.

3) **Discussion On the Systematic Review Study of Sustainable Food Consumption in India**

The comprehensive study on sustainable food consumption in India has illuminated important facets of the nation's food system and provided insightful information for stakeholders, academics, and policymakers. The review's conclusions highlight the urgent need to address the problems caused by unsustainable food practices while also noting the opportunity to change India's food system in a sustainable direction.

- **Dietary Patterns and Environmental Impact:** The review emphasises the importance of dietary patterns in affecting how food consumption in India affects the environment. According to studies (FAO, 2013; Aleksandrowicz et al., 2016), traditional diets high in plant-based meals are seen to be more ecologically friendly than diets that mainly rely on animal-based goods. To make sure that sustainable food choices are inclusive and acceptable across cultures, the study also highlights how crucial it is to take cultural and regional factors into account when advocating for dietary changes (Gustavsson et al., 2011; Misra & Gopalan, 2019).

- **Opportunities and Challenges in Sustainable Production:** The assessment outlines a number of obstacles to India's adoption of sustainable food production practices. The lack of resources, the lack of resources available, and the economic feasibility of sustainable approaches are some of these issues (Swaminathan, 2018; Tilman et al., 2011). However, the study also emphasises how agroecology and organic farming have the potential to improve ecosystem services, biodiversity, and soil health (Gliessman, 2015; Kumar et al., 2019). Enhancing the resiliency of India's agriculture industry to resource constraints and climate change may require scaling up these practises.

- **Policy Gaps and Policy Successes:** The assessment emphasises how crucial it is to have policies and programmes that are helpful in encouraging sustainable food consumption in India. The research does, however, also point to shortcomings in the application and enforcement of such rules (Rangarajan & Shah, 2019; Sharma et al., 2020). More solid and cogent policy frameworks that address many facets of the food system, from production to consumption, are required to hasten the transition to sustainability (Ramanathan et al., 2021; Vidal et al., 2018).

- **Consumer Behaviour and Awareness:** In India, consumer behaviour is a key factor influencing the adoption of sustainable foods. The review highlights the need to educate consumers on the effects that their food choices have on the environment and their health (Rathi et al., 2021;
Vermeulen et al., 2012). Targeted education, labelling, and information campaigns are just a few strategies that can help consumers make more ecologically friendly food choices and change consumer demand.

- **Sustainable Development Through a Holistic Lens**: Overall, the analysis emphasises the significance of implementing a comprehensive strategy for sustainability that takes into account how many components of the food system are interrelated (Neff et al., 2015; Garnett, 2019). In order to promote sustainable food consumption in India, this requires combining social equality, economic viability, and environmental preservation (Foley et al., 2011; HLPE, 2014). In order to achieve the required change towards a sustainable food system, collaboration and cooperation between government agencies, civic society, the corporate sector, and research institutions are essential.

4) **Implications for sustainable food consumption in India**: The thorough evaluation of sustainable food consumption in India has important ramifications for future research, policy, and practise. The information presented should be used by decision-makers to develop and put into practise complete policies that support sustainable food practises, taking into account things like dietary habits, production techniques, consumer behaviour, and the importance of locally grown and in-season foods. Awareness and education initiatives are crucial to enact change by arming people with knowledge about the effects of their food choices on the environment and their health.

The adoption of environmentally friendly agricultural practises will increase with the support of sustainable production practises through incentives and capacity-building initiatives. Filling knowledge gaps and promoting evidence-based decision-making will result from stepping up research and data gathering on sustainable food consumption. Public-private collaborations can foster the development of creative solutions to decrease food waste and boost supply chain effectiveness.

To provide equal access to sustainable food alternatives for all, particularly disadvantaged communities and small-scale producers, authorities must prioritise socioeconomic inclusion. Stakeholders may work together to promote a more sustainable, fair, and resilient food system in India by taking action on these consequences.

Furthermore, talking about the studies held on sustainable food consumption in India has several significant implications for policy, practice, and future research.

- **Policy Formulation and Implementation**: According to Hassan et al. and Rangarajan & Shah (2019), the review emphasises the significance of establishing and executing comprehensive policies that support sustainable food consumption in India. To create effective policies that include all aspects of sustainability, from production to consumption, policymakers may take advantage of the projects that have been identified as beneficial and address the issues.

- **Campaigns for Education and Awareness**: Campaigns to raise consumer awareness and educate them about sustainable food options can help them make choices that are in line with their environmental and health goals (Rathi et al., 2021; Vermeulen et al., 2012). To create and carry out targeted programmes to increase awareness of the effects of dietary decisions on the environment and society, the public and commercial sectors can work together.

- **Supporting Sustainable Practises**: According to the review and Gliessman (2015) and Sharma et al. (2020), India needs to encourage and reward sustainable food production practises. Governmental bodies and organisations may help farmers who embrace sustainable agricultural practises financially, technically, and via training, which will encourage the adoption of environmentally friendly practises.

- **Strengthening Research and Data Collection**: According to Garnett (2019) and Vidal et al. (2018), future research on sustainable food consumption in India should concentrate on filling up knowledge and data availability gaps. To provide solid evidence for evidence-based decision-making, collaboration between academic institutions, policymakers, and non-governmental organisations is crucial.

- **Public-Private Partnerships**: According to the review (Branca et al., 2019; Schipanski et al., 2016), public-private partnerships have the ability to promote projects promoting sustainable food consumption. Innovative solutions may be created to increase supply chain efficiency, decrease food
waste, and encourage sustainable food choices by including the business sector in sustainability initiatives.

- **Socio-Economic Inclusion**: It's crucial to take into account the social aspect of sustainability to guarantee that all facets of society have fair access to sustainable food alternatives (Foley et al., 2011; Misra & Gopalan, 2019). Interventions should be prioritised for the needs of disadvantaged groups while supporting small-scale farmers and producers, according to policymakers.

### 5) Challenges in promoting sustainable food consumption:

Promoting sustainable food consumption faces several challenges that need to be addressed. These challenges include:

<table>
<thead>
<tr>
<th>Challenges in promoting sustainable food consumption</th>
<th>References</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited consumer awareness</td>
<td>Vermeir &amp; Verbeke (2006)</td>
<td>Many consumers may have limited knowledge and understanding of sustainable food production and consumption practices, making it challenging to encourage behavior change.</td>
</tr>
<tr>
<td>Cost considerations</td>
<td>Biswas &amp; Roy (2018)</td>
<td>Sustainable food options are often perceived as more expensive compared to conventional alternatives, creating a barrier for consumers with limited financial resources.</td>
</tr>
<tr>
<td>Lack of accessibility</td>
<td>Biswas &amp; Roy (2018)</td>
<td>Access to sustainable food options, such as organic or locally produced foods, may be limited, particularly in rural areas or lower-income neighbourhoods.</td>
</tr>
</tbody>
</table>

**Other Challenges:**

- **Cultural and behavioural barriers**: According to Vermeulen et al. (2012) and Klöckner et al. (2019), traditional dietary practices and cultural norms may make it difficult to adopt sustainable food consumption practices. Cultural preferences for particular foods and eating habits may make it difficult to encourage dietary changes in favour of more sustainable choices.
- **Lack of Consumer Awareness**: According to Rathi et al. (2021) and Gustavsson et al. (2011), consumers have a limited comprehension of how their food choices have an influence on the environment and society. It's possible that many consumers are not entirely aware of how their purchasing habits have an impact on things like food waste, climate change, and biodiversity loss.
- **Access and affordability**: Compared to conventional alternatives, sustainable food options, such as organic and locally sourced goods, may be more expensive (Carlsson-Kanyama & González, 2009; Kuhar & Erjavec, 2017). Access to sustainable foods may be hampered by this pricing discrepancy, especially for low-income groups.
- **Constraints in the supply chain and limited availability**: Sustainable food items may be difficult for consumers to get if they are not widely available or have few distribution options (Garnett, 2019; Lipinski et al., 2013). The accessibility of perishable sustainable foods can also be impacted by supply chain issues including storage and transportation.
- **Inadequate Policy Support**: According to Mishra et al. (2018) and Rangarajan & Shah (2019), encouraging sustainable practices might be hampered by weak or inconsistent policy frameworks addressing sustainable food consumption. Lack of unified policy may result in dispersed efforts and a diminished influence on the entire food chain.
• Competing Priorities and Short-Term Focus: Priorities that conflict and a short-term focus on short-term thinking and inadequate prioritisation of sustainability in relation to other urgent challenges (Gustavsson et al., 2011; Schipanski et al., 2016). Decisions made by businesses and governments frequently put short-term profits ahead of long-term sustainability objectives.

6) Policy measures to promote sustainable food consumption

To promote sustainable food consumption, several policy measures can be implemented. These measures include:

• Development of comprehensive sustainability policies: Governments can develop and implement policies that prioritize sustainable food production and consumption, integrating environmental, social, and economic dimensions. These policies can include targets, incentives, and regulations to encourage sustainable practices throughout the food system (Biswas & Roy, 2018).

• Support for sustainable agriculture: Governments can provide financial and technical support to farmers who adopt sustainable agricultural practices, such as organic farming, agroecology, and regenerative agriculture. This support can include subsidies, training programs, and access to markets for sustainable products (Biswas & Roy, 2018).

• Promotion of local and regional food systems: Policies can focus on strengthening local and regional food systems by facilitating direct farmer-consumer relationships, establishing farmers' markets, and promoting community-supported agriculture. This can enhance access to sustainable, locally produced food options and reduce the environmental impact of long-distance transportation (Biswas & Roy, 2018).

• Price Incentives and Subsidies: Offering price incentives for sustainable food items, such as tax breaks or subsidies, can increase their accessibility and affordability to a wider range of consumers (Gustavsson et al., 2011; Klöckner et al., 2019). Price adjustments might also persuade manufacturers to choose environmentally friendly methods.

• Public Procurement rules: According to Hassan et al. (2019) and Schipanski et al. (2016), including sustainability criteria into public procurement rules, such as those in schools, hospitals, and government buildings, can spur the demand for sustainable food items. This may increase the market's availability of sustainable choices.

• Education and Awareness programmes: By creating and executing focused education and awareness programmes, consumers may be made aware of the effects that their food choices have on the environment and their health (Garnett, 2019; Rathi et al., 2021). Such ads can encourage people to choose more environmentally friendly options.

7) CONCLUSION

The systematic study emphasises the significance of sustainable food consumption in India and its ability to both provide food security and lessen environmental problems. This study synthesises the existing literature and offers useful insights for stakeholders, policymakers, and academics to build efficient strategies for supporting sustainable food consumption practices in India and creating a more resilient and eco-friendly food system.

Summary of key findings

India's food system is illuminated by the comprehensive review on sustainable food use. Traditional plant-based diets had a lower environmental effect, according to the study. The assessment acknowledges the difficulties of advocating dietary changes in a culturally varied population. Agroecology and organic farming can improve soil health, biodiversity, and ecosystem services.
However, knowledge, resources, and economic feasibility restrict adoption. Sustainable food projects are dispersed due to policy inadequacies. Targeted education and awareness efforts to enable consumers to make educated choices, pricing incentives to make sustainable solutions affordable, and sustainability criteria in public procurement regulations are needed to address these difficulties. To create a more sustainable and resilient food system in India, the assessment emphasises a comprehensive approach that incorporates social equality, economic viability, and environmental protection.

**Importance of sustainable food consumption**

The systematic research of sustainable food consumption in India provides important new insights into how the nation's food system is currently functioning. The study emphasises the role of eating habits in determining how food consumption affects the environment, with traditional diets strong in plant-based foods showing more sustainable results. The assessment notes the difficulties in encouraging dietary changes in a country with a varied population of cultures. Adopting sustainable food production techniques, such as agro ecology and organic farming, has the potential to improve ecosystem services like soil health and biodiversity. However, obstacles including low knowledge, poor resource availability, and lack of economic feasibility prevent broad adoption.

The need for more comprehensive and cogent policy frameworks is highlighted by policy gaps and the fragmented implementation of sustainable food projects. Targeted education and awareness efforts, pricing incentives to encourage affordable access to sustainable solutions, and the incorporation of sustainability criteria into public procurement laws are all necessary to address these issues. The review's overall message emphasises the significance of a comprehensive strategy that promotes social fairness, economic viability, and environmental protection in India's food system.

**Future directions for research and action**

The research on the consumption of sustainable food in India demands for coordinated efforts to develop knowledge and put into practise workable solutions. In order to create specialised education and awareness initiatives, future research should concentrate on comprehending the socioeconomic and cultural factors impacting food choices, particularly among various demographic groups. Evidence-based policy formation will be aided by studies examining the effects of various feeding patterns on the environment and the possibility for decreasing food waste.

Furthermore, thorough assessments of existing sustainable food programmes will shed light on their efficacy and suggest ways to enhance them. Promoting sustainable production and increasing access to sustainable food alternatives can benefit from research into creative finance strategies, public-private collaborations, and incentive structures.

Additionally, including sustainability into training programmes and academic curriculum will increase capacity and promote a sustainable culture among future generations. To hasten India's transition to sustainable food consumption, cooperative initiatives including the government, civic society, industry, and consumers are crucial. Establishing a sustainable and equitable food system that serves both people and the environment will depend heavily on putting an emphasis on inclusion, policy consistency, and long-term thinking.

**REFERENCES:**


