

# **PATAMIL Project**

## **Report on Food Supply and Consumption in Rural and Urban Pondicherry Bio-region**

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## **Executive Summary**

This report examines the patterns of food supply and consumption in the rural and urban contexts of the Pondicherry bio-region, focusing on key dimensions such as food security, equity, sovereignty, and democracy. It investigates how socio-economic, cultural, and gender factors influence dietary habits and access to food in two contrasting environments: the rural village of Krishnankuppam and the urban area of Ariyankuppam.

The report highlights the rural community's reliance on traditional crops and the urban area's greater diversity in food choices, driven by different socio-economic dynamics. Government policies, such as the Green Revolution and the Public Distribution System, have significantly influenced food practices, leading to a marked shift from millet to rice-based diets. An analysis of meal organization indicates that rural households depend on locally available produce, while urban households enjoy a wider variety of vegetables and fruits. Urban innovations in meal preparation showcase a blending of traditional and modern culinary trends, whereas rural practices are often constrained by economic and time limitations.

Socioeconomic disparities are particularly evident in rural areas, where lower-income groups struggle with food security. This challenge is reflected in the consumption of millet, with lower-income households often unable to afford these nutritious food options. When examining fruit and vegetable consumption, significant differences emerge, with urban households incorporating a wider variety compared to their rural counterparts. The study highlights the impact of socioeconomic status and market availability on these trends. Urban households consume more fruits due to better access and awareness, while rural households prioritize seasonal and locally available options.

The report also explores non-vegetarian consumption, observing preferences for seafood, chicken, and mutton in both rural and urban contexts, with urban households displaying greater frequency and variety. While seafood is popular across both contexts, affordability and availability play crucial roles in shaping consumption patterns. Rural households tend to rely on locally sourced options, while urban households benefit from broader market accessibility.

Food supply patterns vary significantly between rural and urban households, reflecting their distinct socio-economic and geographical contexts. Rural households frequently rely on self-cultivation and local exchanges for their food supply, heavily depending on seasonal availability. However, reduced farm sizes and economic pressures are causing an increasing reliance on markets for staples like rice and other essentials. Urban households, in contrast, primarily depend on the market, sourcing food from local shops, supermarkets, and speciality stores. This market dependency allows urban households access to a broader variety of food items, but it also exposes them to fluctuations in market availability and prices.

Gender roles play a vital part in managing food supply, with rural women balancing farming and household responsibilities, while urban women navigate market systems to meet their families' dietary needs. The report also examines food transformation within domestic kitchens, emphasizing women's roles in managing household food systems under various constraints. Rural women often balance traditional methods with resource limitations, while urban women

explore innovative recipes that reflect modern dietary preferences. Health awareness and traditional culinary knowledge emerge as critical factors influencing food choices in both contexts, particularly among economically advantaged households.

Health-related concerns associated with changing food habits in the region reveal significant differences between rural and urban contexts. The shift from traditional millet-based diets to rice-centric consumption has contributed to rising incidences of lifestyle diseases such as diabetes and hypertension, particularly in rural areas where access to healthcare and awareness is limited. While rural households rely on locally sourced foods with minimal diversity, urban households incorporate a broader range of healthy foods such as greens, fruits, and millet, reflecting greater health awareness and market accessibility. However, urban diets also exhibit a higher intake of processed and convenience foods, increasing the risk of obesity and related conditions. Health-conscious behaviours, like the inclusion of millet and greens for their nutritional benefits, are more prominent in urban areas, often driven by education and income levels. In contrast, rural households face constraints such as time, resources, and lack of awareness, limiting their ability to integrate healthier dietary options consistently. These disparities highlight the need for targeted nutritional education and access to affordable, healthy food options across both contexts.

In conclusion, the study provides a comprehensive understanding of the evolving food systems in the Pondicherry bio-region, identifying factors that differentiate rural and urban food practices, including socio-economic influences, cultural preferences, and generational shifts. The report emphasizes the necessity for targeted policies to address food equity and sustainability, suggesting that promoting local agricultural systems and empowering communities through food sovereignty and democracy can help bridge existing gaps. It advocates for a balanced approach that integrates nutritional education, market accessibility, and cultural preservation to cultivate a resilient and inclusive food system for the Pondicherry bio-region.

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## **2. A Survey on Food Consumption in Rural and Urban Contexts**

### **1.1 Introduction**

In the PATAMIL<sup>1</sup> project, this study delves into the intricate dynamics of food systems within the Pondicherry bio-region, focusing on the distinct characteristics of food supply and consumption patterns across rural and urban households. This study goes beyond mere description, aiming to understand these disparities through the lens of key food system concepts: food security, food equity, food sovereignty, and food democracy ultimately contributing to a more sustainable food system.

#### **1.1.1 Conceptual Framework**

Food security forms the foundation of a healthy and thriving society. As defined by the FAO, food security exists when "all people, at all times, have physical and economic access to sufficient, safe, nutritious food to meet their dietary needs and preferences for an active and healthy life" (FAO, 2023). This study will explore whether both rural and urban households within the Pondicherry bio-region achieve this level of food security, and how socio-economic factors influence access to nutritious food. Achieving food security for all is a cornerstone of a sustainable food system.

Food equity goes beyond mere access. It emphasizes the fair distribution of resources and the ability to acquire a healthy diet across different social groups (Azétsop & Joy, 2013). This concept delves into issues like racial and economic disparities in access to affordable, fresh, and culturally appropriate food options. Social and economic inequalities can significantly impact food choices, affordability, and ultimately, the nutritional well-being of diverse populations. Food equity disparities can arise due to limited access to grocery stores, higher prices of fresh produce in certain areas, or lower wages hindering the ability to purchase nutritious options. Addressing these inequities is crucial for a sustainable food system that benefits all members of society.

Food sovereignty builds upon the principles of food security and equity. It emphasizes the right of communities to define their own food and agricultural systems (Vía Campesina, 2009). This concept focuses on local control over food production, distribution, and access, ensuring they are culturally appropriate, ecologically sustainable, and socially just. This study will consider the self-reliance of rural and urban communities in terms of food production and the role of local food systems in achieving food security and dietary well-being. To what extent do local communities rely on external food sources, and are there opportunities to strengthen local food

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<sup>1</sup> <https://odriis.hypotheses.org/projects/action/patamil>

production and distribution networks to enhance food security and empower communities? Food sovereignty aligns well towards sustainable food systems by promoting local production, reducing reliance on long-distance transportation, and fostering a sense of ownership among communities.

Food democracy emphasizes the importance of participation and decision-making power in shaping the food system (Lang & Heffernan, 2017). The research will examine the extent to which rural and urban communities in the Pondicherry bio-region have a voice in shaping their local food environments and access to healthy options. Do communities have access to farmers' fields, and farmers markets, or influence over local food policies that impact their dietary choices? Strengthening food democracy is essential for building a sustainable food system that is responsive to the needs and aspirations of local communities.

Food security, equity, sovereignty, and democracy are all intertwined aspects of a sustainable food system. Examining these concepts in the Pondicherry bio-region can help us understand the challenges and opportunities to create a system that ensures everyone has access to healthy food (security), distributes resources fairly (equity), empowers communities to control their food production (sovereignty), and allows them to participate in shaping their local food environment (democracy). This study aims to analyze disparities in food supply and consumption through the lens of these interconnected concepts to identify strategies for a more sustainable food system for all within the Pondicherry bio-region.

### **1.1.2 Problem Statement**

Significant discrepancies exist between rural and urban populations regarding food security and dietary choices. The socio-economic inequalities further amplify these disparities. Understanding these variations, particularly the influence of social and economic factors on food access, dietary quality, and health outcomes, is crucial. Additionally, the role of women in managing household food systems and the potential link between dietary habits and health disparities in different contexts warrant further investigation.

Unequal access to resources plagues rural communities, limiting their ability to acquire a balanced diet. However urban populations, especially those with higher incomes, often enjoy greater access to diverse food sources and supermarkets. This creates a significant gap in food choices between different communities. People in wealthier areas, both rural and urban, have more options for healthy and diverse foods. However, those with limited resources, particularly in lower-income communities, struggle to afford nutritious options. This economic disparity creates unfairness in the food system and forces many to rely on cheaper, less healthy alternatives. This, in turn, can lead to malnutrition and diet-related chronic diseases like obesity, diabetes, and heart disease.

The burden of managing household food systems often falls disproportionately on women. Their access to resources, ability to navigate limited budgets, and the choices they make significantly impact the family's overall well-being. This interplay between socio-economic factors, gender roles, and dietary habits necessitates a deeper understanding to address these concerning disparities.

### **1.1.3 Objectives**

1. To gain a broad perspective of dietary practices in the region, understanding the regional variations within rural and urban contexts.
2. To analyze how socio-economic factors (income, access to resources) influence food security and access to healthy food options in rural and urban communities within the Pondicherry bio-region.
3. To explore the role of women in managing household food systems within different communities, focusing on the challenges they face and the strategies they employ to ensure food security.
4. To examine the potential connections between dietary habits and health outcomes in both rural and urban communities of the Pondicherry bio-region.
5. To investigate how concepts like food sovereignty and food democracy manifest within the Pondicherry bio-region, and how these concepts might contribute to addressing existing disparities.

### **1.1.4 Research Questions**

1. How do food supply and consumption patterns differ between rural and urban households in the Pondicherry bio-region?
2. How do income levels and access to resources affect dietary choices and food security in rural and urban communities?
3. What are women's experiences in managing household food systems with limited resources across different communities?
4. Is there a correlation between dietary habits and health outcomes in rural and urban communities, and if so, what are the potential contributing factors?
5. How do rural and urban communities perceive their control over their food systems (food sovereignty) and their ability to influence local food policies (food democracy)?
6. In what ways can promoting food sovereignty and food democracy contribute to a more equitable and sustainable food system within the Pondicherry bio-region?

## **1.2 Methodology**

This research was conducted in Krishnankuppam village in the Cuddalore district and Ariyankuppam block in Pondicherry. The Krishnankuppam was purposively chosen for the study

since it has a diverse group of households i.e. upper caste (*Naidu*), middle caste (*Vanniyar*), Dalits, and Christian households. Likewise, the Ariyankuppam town has been chosen as the urban counterpart, hosting a spectrum of households ranging from lower class to high class, thereby reflecting various social and economic standards of living. Ariyankuppam was chosen due to its proximity to various food sources, including farms in the surrounding villages, coastal villages around Veerampattinam, and the significant food supply from Pondicherry town.

## **1.2.1 Description of Study Field: Rural and Urban Contexts**

### **1.2.1.1 Profile of Krishnankuppam**

Krishnankuppam, nestled within the Kurinjipadi block of Cuddalore district in Tamil Nadu, is a vibrant village pulsating with rural life centred on agriculture and community. The village comprises three settlements: Krishnankuppam, Kattiyankuppam, and Thimmavarathakuppam. A network of open wells, borewells, and community ponds enables year-round cultivation of dry crops like groundnut, sesame, and millets (*Cumbu*-Pearl millet). Recently, with improved irrigation, farmers have begun cultivating cash crops like sugarcane and bananas. A small number of farmers also grow paddy, black gram, *ragi* (finger millet), and *keerai* (spinach) for household consumption. The village exhibits social stratification. The population comprises upper-caste *Naidus*, middle-caste *Vanniars*, Dalit communities, and Christians. Land ownership reflects this social structure, with Dalit households possessing the smallest holdings, followed by middle castes, and upper castes holding the most land.

Agriculture is the primary occupation, with most men involved in daily wage labour, both farm work and non-farm work, locally and in nearby towns. Some men work in the service sector, and employment, and a few engage in small-scale businesses. Economic diversity is further amplified by outward seasonal migration. Young men often seek agricultural work in nearby Kerala, while others, influenced by the village's improved literacy rate, pursue urban jobs or migrate internationally. Women, especially those from lower and middle-income households, contribute significantly to agricultural work, particularly during on seasons. Some women also raise livestock like cows and goats, and most households keep a few chickens.

Krishnankuppam's food security is a complex interplay. Local agriculture provides a foundation, with households consuming what they cultivate. Surrounding villages specialize in different crops, creating a network for purchasing additional produce. The village itself likely has access to grocery stores and vegetable vendors who bring fresh produce on small trucks for retail sale. For a wider variety, villagers travel to nearby Kullanchavadi, which hosts a weekly market and boasts numerous grocery stores and speciality shops. Additionally, travel to Kurinjipadi, Chathiram, or the larger towns of Cuddalore and Panruti ensures access to diverse food resources. This interplay between local production, inter-village exchange, and access to larger markets safeguards Krishnankuppam's food security.

### 1.2.1.2 Profile of Ariyankuppam

Ariyankuppam, a town in Pondicherry, India, is a fascinating blend of tradition, urbanization, and socio-economic diversity. Its strategic location ensures easy accessibility to Pondicherry City, offering residents a warm tropical climate and convenient access to urban amenities. Despite its proximity to the city, Ariyankuppam maintains its distinct identity, balancing urban influences with rural connections. While benefiting from urban amenities, such as various services and facilities, the town also preserves its rural charm, particularly in the outskirts where agricultural activities persist. This unique blend of urban and rural elements makes Ariyankuppam an intriguing and vibrant community. The 2011 census recorded a population of 29,808, with 14,565 males and 15,243 females residing in over 7,350 households. The town's population has seen growth, with an estimated population of approximately 41,000 in 2024, reflecting a dynamic and evolving community. Scheduled Castes (SC) make up 7.18 per cent of the population, while there are no Scheduled Tribes (ST) residents. Hindus form the majority religious group at 88.89%, followed by Christians (7.54%) and Muslims (3.02%).

The local economy reflects a transitional mix, encompassing urban-centric occupations such as service sectors and small businesses, alongside traditional rural pursuits like agriculture. Residents also have the flexibility to commute to nearby Pondicherry and Cuddalore cities, enriching the economic dynamism of the region. Ariyankuppam has a robust workforce, with a significant portion of the residents actively involved in diverse occupations such as business, employment, service industries, and agriculture. This indicates a stable employment landscape and sustainable livelihoods for most. The town also reflects a wide socio-economic spectrum, spanning from lower to upper classes. In terms of food resources, vibrant markets offer fresh produce and essential commodities, complemented by smaller grocery stores catering to household requirements. Additionally, Ariyankuppam's strategic location provides easy access to diverse food sources from surrounding villages, coastal settlements, and Pondicherry City. Thus, Ariyankuppam serves as a compelling case study, illustrating the intricate interplay between tradition, ongoing urbanization, and a diverse economic landscape within Pondicherry.

### 1.2.2 Sampling

Sampling in the rural setting draws upon primary data from the Depleted by Debt project<sup>2</sup>, selecting respondents proportionately across social and economic classes based on landholding and food security status. The sample includes thirty households, featuring six Christian, four upper-caste, ten middle-caste, and ten Dalit households.

In the urban setting, thirty households are chosen from Ariyankuppam, mirroring the sample size of the rural households. The selection process prioritizes socio-economic diversity, categorizing respondents into lower class (LC), lower-middle class (LMC), middle class (MC), and upper

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<sup>2</sup> <https://odriis.hypotheses.org/projects/data/depletedbydebt>

class (UC). This classification takes into account factors such as education, income, lifestyle, and access to various amenities and opportunities, rather than solely relying on income levels.

### **1.2.3 Data collection method**

An interview guide (checklist) has been prepared to allow in-depth, qualitative interviews with chosen rural and urban households representing various social and economic classes in the study locations. The selected households were contacted directly and the interviews were made. Despite efforts to interview as many women as possible, a few women specifically in rural households were reluctant to participate, thus interviews with their spouses were conducted instead. A considerable number of interviews were also made with both the men and women of the household together. The interviews were recorded and transcribed into text, and the resulting data were analyzed to obtain meaningful insights from the data.

### **1.2.4 Presentation of the interview guide**

Two separate interview guides were created to address the specific contexts of each geographic location. The interview guide is semi-structured, consisting primarily of open-ended questions designed to elicit detailed descriptive responses from participants. Furthermore, the guide is designed with flexibility in mind, enabling the investigator to build upon participant responses with subsequent questions and gather additional information based on the respondents' interests, intellect, and cooperation.

The interview guide comprises different sections, covering various aspects such as household profiles, food consumption patterns (including the number of meals per day and specific meal preferences for breakfast, lunch, dinner, and evening snacks), preferences and consumption of vegetarian and non-vegetarian foods, consumption of local greens (*keerai*), millets, traditional rice, vegetables, and fruits. It also delves into topics such as access to and purchasing patterns of groceries and vegetables, preferences for processed versus homemade ingredients, socio-economic and cultural factors influencing food choices, beliefs, nutritional and health awareness, and the perceived link between food and health. Additionally, it explores how food habits have evolved over decades and their associated health outcomes. The interview guide also includes specific questions regarding the role of women in food preparation and other household responsibilities, as well as their influence on decision-making regarding food choices and expenditures related to food.

There are minimal differences between the rural and urban interview guides. The main distinction lies in the profile section accounts for the differing geographical contexts of the study. The rural interview guide includes questions specific to land ownership, while the urban guide inquires about family origin and potential connections to rural areas (e.g., relatives who might supply them with food products directly). This distinction reflects the hypothesis that rural

households may have greater access to homegrown or locally sourced food. However, apart from these minor variations, the rest of the questions remain largely similar, tailored to the respective geographic locations of the survey.

## **1.2.5 Description of the Fieldwork Conditions**

### **1.2.5.1 Rural Fieldwork**

Fieldwork conditions in Krishnankuppam built upon the foundation established by the Debt project, providing a basis for selecting 30 households representing diverse socio-economic classes. Emphasis was placed on factors such as landholding status and levels of food security obtained from previous data. Contacting selected households proved challenging initially, as many were uncertain about the nature of the interaction and hesitant to participate. Personal visits and detailed explanations regarding the interview process were instrumental in overcoming these initial barriers, leading to increased acceptance among women to participate.

Despite initial hesitations, women in the chosen households demonstrated enthusiasm for discussing food-related topics, despite their heavy involvement in agricultural wage work and household responsibilities. The busy schedules of participants made conducting in-depth interviews challenging, necessitating multiple interview sessions in some cases. In instances where women refused interviews, efforts were made to interview male counterparts, providing valuable insights into household dynamics and decision-making processes related to food.

Engaging both men and women in simultaneous discussions yielded contrasting perspectives on food consumption and preparation. Women expressed concerns about additional workload and difficulties in preparing millet and keera-based foods, while men lamented the lack of preparation of these nutritious foods by their spouses, citing their health benefits. Interviews conducted with both men and women provided nuanced insights into household food practices and the dynamics of decision-making regarding food choices.

Furthermore, the involvement of neighbours in discussions added depth to the conversations, enriching the understanding of communal food-related issues within the settlement. Despite significant challenges, the fieldwork provided invaluable insights into the socio-economic dynamics and gendered experiences within different rural households. Overall, rural women displayed enthusiasm and willingness to engage in discussions about food and relevant issues, contributing valuable insights to the study.

### **1.2.5.2 Urban Fieldwork**

The urban fieldwork conducted in the Ariyankuppam urban area presented distinct challenges and opportunities compared to its rural counterpart. Unlike the rural setting, where primary data on household conditions was available through the Debt Project, the urban area lacked such



readily accessible data. Efforts were directed towards understanding the socio-economic dynamics of the region through various secondary data sources and interactions with government officials and their reports.

Collaboration with officials from the Block Development Office of Ariyankuppam facilitated the identification of households for the study. Various methods, including referrals from officials and snowball sampling from initial respondents, were employed to select 30 households representative of diverse socio-economic backgrounds. However, the absence of pre-existing household details, as in the rural setting, necessitated a more dynamic approach to household selection based on prevailing field conditions.

In contrast to the rural fieldwork, urban women exhibited relatively less reluctance. Nonetheless, there were instances of initial uncertainty among urban women regarding the nature of the interaction and the questions asked, similar to the rural context. However, once interactions commenced, these concerns were alleviated, and interviews proceeded smoothly.

Unlike rural interviews, where opportunities to interview both spouses were possible, urban interviews predominantly focused on engaging majorly with the women of a household. Furthermore, neighbour interventions during interviews were minimal, particularly among middle and high-class households. However, interactions with lower and lower-middle-class households occasionally provoked neighbour involvement, although to a lesser extent than observed in rural settings.

Notably, urban women demonstrated enthusiasm and passion, particularly among middle and high-class households, for discussing the importance of providing healthy and nutritious food for their families. This contrasts with the rural context, where interviews were often influenced by factors such as agricultural wage work and household responsibilities.

Overall, while the urban fieldwork presented its unique set of challenges and dynamics, it provided valuable insights into the food-related practices and priorities of urban households, complementing the findings from the rural fieldwork.

## **1.3 Profile of the Sample Households**

### **1.3.1 Socio-Economic Status**

Both rural and urban households were categorized into four distinct socio-economic groups. Initially, rural households were classified into lower caste, Christian, middle caste, and upper caste based on community status data provided by the Debt project. However, such data were not available for Ariyankuppam, necessitating a different approach. Diverse households from various socio-economic backgrounds were included, and classification was made post-interview based

on social status, income level, and living standards. Consequently, urban households were classified as lower class, lower middle class, middle class, and upper class.

To ensure consistency in socio-economic representation across rural and urban settings, efforts were made to align the caste classification of rural households with a more logically structured socio-economic classification for urban households. Although the classifications did not perfectly align, Dalit households were classified as lower class, Christian households as lower-middle class, middle caste households as middle class, and higher caste households as upper class. While this classification may not precisely reflect the economic status of rural households, factors such as landholding, living standards, and wealth status were considered for this classification.

**Table 1 Socio-Economic Distribution of Rural and Urban Households**

Class	Rural		Urban		Total	
	f	%	f	%	f	%
Lower Class	10	33.33	5	16.67	15	25.00
Lower Middle Class	6	20.00	7	23.33	13	21.67
Middle Class	10	33.33	10	33.33	20	33.33
Upper Class	4	13.33	8	26.67	12	20.00
<b>Total</b>	<b>30</b>	<b>100.00</b>	<b>30</b>	<b>100.00</b>	<b>60</b>	<b>100.00</b>

*Note:* f - Frequency

The socio-economic distribution of rural and urban households in Table 1 reveals a relatively equitable representation across various socio-economic backgrounds. The middle class constitutes the largest proportion in both rural and urban settings, accounting for 33.33 per cent overall, followed by the lower class (25.00%), lower-middle class (21.67%), and upper class (20.00%).

Notably, urban distribution also achieves more or less equal representation from all socio-economic groups than the overall distribution pattern. However, in the rural setting, there was notably less representation (13.33%) by upper-class households, contrasting with the higher proportions of lower class (33.33%) and middle class (33.33%) households, and lower middle class households (20.00%). This discrepancy can be attributed to the proportionate selection of households based on available data from the Debt project. Despite the lower representation of upper-class households in the rural context, it remains proportionate to the total number of upper-caste households in the village. On the other hand, in the urban setup, concerted efforts were made to ensure equitable representation across all socio-economic groups. Consequently, the post-classification of households revealed a more balanced distribution, with nearly equal representation from all socio-economic backgrounds.

### 1.3.2 Age

In designing the study, it was intended to encompass respondents across all age groups, spanning from younger generations to older individuals. However, due to considerations such as existing family structure, socio-economic background, and respondent availability, the study managed to capture a diverse range of age groups from both rural and urban households. The distribution of respondents according to their age categories is presented in Table 2.

**Table 2 Age Distribution of Respondents**

Age	Rural		Urban		Total	
	f	%	f	%	f	%
Up to 30 years	5	16.67	0	0.00	5	8.33
31 to 40 years	15	50.00	5	16.67	20	33.33
41 to 50 years	6	20.00	16	53.33	22	36.67
Above 50 years	4	13.33	9	30.00	13	21.67
Total	30	100.00	30	100.00	60	100.00
Mean	40.37		47.50		43.93	
T-test	t value: -3.266, p-value: 0.002, Mean difference: -7.13					

*Note:* f - Frequency

Analysis of the age distribution reveals that more than one-third (36.67%) of respondents belong to the age group of 41 to 50 years, followed closely by the 31 to 40 years age group (33.33%), with those above 50 years constituting 21.67 per cent of respondents. Conversely, only 8.33 per cent of respondents are from the age group less than 30 years. The overall average mean age of respondents is calculated to be 43.93 years. Notably, rural respondents exhibit a slightly lower mean age of 40.37 years, while urban respondents display a marginally higher mean age of 37.50 years compared to the overall mean.

Statistical analysis using an independent t-test (t-value: -3.266; p-value: 0.002) indicates a statistically significant difference between the mean age of rural and urban respondents, with a mean age difference of 7.13 in favour of urban households. This discrepancy underscores the distinct age demographics observed in the study, with a predominance of older respondents in urban households, where 83.33 per cent belong to the age group of more than 40 years. Conversely, in rural households, two-thirds of respondents (66.67%) fall into the age group of up to 40 years. This trend can be attributed to the role dynamics within households, particularly evident in rural settings, where married younger women (Daughter-in-law) of the family are typically expected to assume primary responsibility for cooking duties. However, they often receive support from older family members, primarily mothers-in-law, who may also engage in farm work.

Similarly, in urban households, older women, such as mothers or mothers-in-law, are primarily involved in cooking activities. Despite efforts to solicit responses from younger women in urban households, the predominant involvement of elder women in food preparation potentially

influenced their participation in interviews. This phenomenon reflects the prevailing household dynamics and the pivotal role of elder women in food-related decision-making processes within both rural and urban contexts.

### 1.3.3 Family Size

Family size was categorized into three groups based on the number of family members, and the results are summarized in Table 3.

**Table 3 Family Size of Rural and Urban Households**

Family size	Rural		Urban		Total	
	f	%	f	%	f	%
Up to 4 members	14	46.67	18	60.00	32	53.33
5 to 6 members	12	40.00	10	33.33	22	36.67
More than 6 members	4	13.33	2	6.67	6	10.00
Total	30	100	30	100	60	100
Mean	4.73		4.23		4.48	
T-test	t value: 1.287, p-value: 0.203, Mean difference: 0.5					

*Note:* f - Frequency

Table 3 reveals that slightly more than half (53.33%) of the households interviewed consisted of small families with up to 4 members, followed by 36.67 per cent of families comprising 5 to 6 members, and only 10.00 per cent of households with more than 6 members. The overall mean family size is calculated to be 4.48, with rural households exhibiting a slightly higher mean of 4.73 and urban households slightly lower at 4.23. Although there is a slight difference of 0.5 in the mean family size between rural and urban households, statistical analysis using an independent t-test (t-value: 1.287; p-value: 0.203) indicates that this difference is not statistically significant.

Similar distribution patterns as overall distribution were observed in rural households, whereas urban households showed a slightly higher representation of small families and a slightly lower representation of large families with more than 6 members compared to rural counterparts. Consequently, it can be inferred that households in urban areas tend to be smaller than those in rural areas among the households interviewed in this study.

### 1.3.4 Education Level

The education status of respondents was collected based on actual years of formal education attained and classified into six categories: illiterate (No formal education), primary education (completed 5th standard), middle school education (completed 8th standard), high school

(completed 10<sup>th</sup> / SSLC), higher secondary (12<sup>th</sup> standard / Intermediate), and collegiate education (Diploma, Graduation and above). The data on education are presented in Table 4.

**Table 4 Education Level of Respondents**

Education status	Rural		Urban		Total	
	f	%	f	%	f	%
Illiterate	12	40.00	1	3.33	13	21.67
Primary Education	5	16.67	12	40.00	17	28.33
High School Education	12	40.00	8	26.67	20	33.33
Secondary Education	1	3.33	4	13.33	5	8.33
Collegiate Education	0	0.00	5	16.67	5	8.33
<b>Total</b>	<b>30</b>	<b>100.00</b>	<b>30</b>	<b>100.00</b>	<b>60</b>	<b>100.00</b>
<b>Mean</b>	5.37		9.23		7.3	
<b>T-test</b>	t value: -3.417, p-value: 0.001, Mean difference: -3.87					

*Note:* f - Frequency

The distribution of respondents across these education categories reflects a diverse range of academic backgrounds within the studied population. Notably, a significant proportion of respondents had attained education up to high school level, with one-third (33.33%) falling into this category. This was closely followed by respondents with primary education, comprising 28.33 per cent of the sample. A smaller percentage of respondents were classified as illiterate (21.67%), while a minority reported higher levels of education, including higher secondary (8.33%) and collegiate education (8.33%).

Interestingly, exactly half of the respondents had attained at least a high school education (equivalent to 10th standard), indicating a substantial portion of the sample with a basic level of formal education. However, disparities were observed between rural and urban respondents in terms of educational attainment. Urban respondents exhibited a higher mean education level (9.23) compared to rural respondents (5.37), highlighting the educational divide between rural and urban areas. Statistical analysis confirmed a significant difference (t-value: -3.417; p-value: 0.001) favouring the urban pool, with a mean difference of 3.87.

Furthermore, the presence of respondents with higher secondary and collegiate education underscores the importance of educational opportunities within the studied community. While higher education attainment was more prevalent among urban respondents, disparities persisted, with a notable absence of collegiate education among rural respondents and a higher incidence of illiteracy in rural areas. This reflects historical disparities in access to education, particularly for women, in rural areas, emphasizing the need for continued efforts to address educational inequalities and expand educational opportunities for all segments of society.

### 1.3.5 Occupation of Respondent (Women)

The occupation status of respondents, primarily women, was collected and categorized into different groups, as presented in Table 5. In the rural setting, predominant occupations for women included farming, farm work, and livestock rearing, supplemented by engagement in small-scale businesses, as well as government and private jobs. Conversely, in the urban context, major occupations comprised small-scale businesses, alongside employment in private and government sectors.

**Table 5 Occupation of Respondents**

Occupation	Rural		Urban		Total	
	f	%	f	%	f	%
Farmer	2	6.67	0	0.00	2	3.33
Farm labour	10	33.33	0	0.00	10	16.67
Farm labour & Livestock	2	6.67	0	0.00	2	3.33
Government job	1	3.33	1	3.33	2	3.33
Private job	2	6.67	4	13.33	6	10.00
Small scale business	3	10.00	9	30.00	12	20.00
Homemaker	10	33.33	16	53.33	26	43.33
<b>Total</b>	<b>30</b>	<b>100.00</b>	<b>30</b>	<b>100.00</b>	<b>60</b>	<b>100.00</b>

*Note:* f - Frequency

Analysis of Table 5 reveals a distinct contrast between rural and urban respondents. Across the entire sample, less than half (43.33%) of the respondents identified as homemakers, while the remainder were engaged in various employment opportunities specific to their respective regions. Additionally, one-third (33.33%) of rural respondents identified as homemakers, whereas in urban areas, around half (53.33%) of the respondents fulfilled this role. This suggests that rural women were more actively involved in economic activities in addition to their household responsibilities compared to their urban counterparts.

In rural areas, nearly half (46.67%) of the respondents were involved in farm-related activities, including participation in their own farm operations, farm wage labour tasks, and livestock management. Conversely, there were no respondents in urban areas engaged in farm-related occupations, consistent with the absence of agricultural activities within urban settings. Across both urban and rural contexts, a minimal proportion of respondents were engaged in either private or government employment. However, a notable percentage of rural (10.00%) and urban (30.00%) respondents were involved in small-scale businesses. Notably, rural women primarily participated in modest business ventures such as grocery shops and tiffin centres, whereas urban women were engaged in a more diverse array of small business activities including food processing (Snack making), tailoring, and catering.

### **1.3.6 Occupation of Household Head (Spouse/Father of Respondents)**

Similarly, the occupation status of male counterparts within the households was collected and presented in Table 6.

**Table 6 Occupation of Household Head**

Occupation	Rural		Urban		Total	
	f	%	f	%	f	%
Farmer	10	37.04	1	3.85	11	20.75
Wage Labour	9	33.33	3	11.54	12	22.64
Government job	2	7.41	2	7.69	4	7.55
Private job	4	14.81	7	26.92	11	20.75
Business	0	0.00	5	19.23	5	9.43
Small scale business	2	7.41	5	19.23	7	13.21
Unemployed	0	0.00	3	11.54	3	5.66
<b>Total</b>	<b>27</b>	<b>100.00</b>	<b>26</b>	<b>100.00</b>	<b>53</b>	<b>100.00</b>

*Note:* f - Frequency

The data revealed a parallel trend to that observed among women, with the majority of rural male respondents primarily engaged in farming and farm work, accounting for 70.37 per cent. Within rural households, slightly more than one-third (37.04%) of men were involved in farming on their own land, followed by an almost equal proportion (33.33%) engaged in daily wage labour which includes both farm and non-farm work within the village as well as in the nearby towns. Other occupations such as government jobs, private employment, and small-scale businesses were less prevalent among male members, with no involvement in larger business ventures observed.

Conversely, in urban households, over one-third of male counterparts (38.46%) were engaged in small-scale and medium enterprise businesses. The small-scale business involves tiffin centres, grocery shops, and small welding workshops, whereas the medium enterprises such as the food processing industry, transport business, and construction material supply business were also notable. A considerable proportion was involved in private sector jobs (26.92%), followed by daily wage employment (11.54%) and government jobs (7.69%). Notably, one household in urban areas continued farming activities in rural locations, commuting daily to their farm. Additionally, a significant percentage (11.54%) of urban male counterparts were unemployed, predominantly due to age-related health issues or retirement.

### **1.3.7 Farm Size**

In the rural setting, the distribution of farm sizes among households interviewed was examined and is presented in Table 7.

**Table 7 Farm Size of Households**

Farm size	LC		LMC		MC		UC		Total	
	f	%	f	%	f	%	f	%	f	%
No farm	6	60.00	4	66.67	2	20.00	0	0.00	12	40.00
Up to 1 acre	2	20.00	1	16.67	4	40.00	2	50.00	9	30.00
1.1 to 2 acres	2	20.00	1	16.67	1	10.00	1	25.00	5	16.67
More than 2 acres	0	0.00	0	0.00	3	30.00	1	25.00	4	13.33
<b>Total</b>	<b>10</b>	<b>100.00</b>	<b>6</b>	<b>100.00</b>	<b>10</b>	<b>100.00</b>	<b>4</b>	<b>100.00</b>	<b>30</b>	<b>100.00</b>
<b>Mean</b>	1.23		1.50		1.63		1.56		1.51	
<b>Minimum</b>	0.40		1.00		0.20		0.25		0.20	
<b>Maximum</b>	2.00		2.00		3.00		3.00		3.00	
<b>ANOVA</b>	F value: 0.133, p-value: 0.939									

*Note:* f - Frequency, LC- Lower Class, LMC- Lower Middle Class, MC- Middle Class, UC-Upper Class

It was observed that a significant portion, comprising two-fifths of rural households, did not possess any farmland. Among those with farmland, approximately one-third (30.00%) of households owned land up to 1 acre, with 16.67 per cent possessing between 1.1 to 2 acres, and 13.33 per cent owning more than 2 acres. The mean farm size for interviewed households was calculated to be 1.51 acres, ranging from a minimum of 0.20 acres to a maximum of 3 acres.

Analysis of farm ownership across different socio-economic groups revealed notable disparities. A substantial majority of lower-class (60.00%) and lower-middle-class (66.67%) households did not possess farmland, whereas all upper-class households owned farmland. Furthermore, only 20.00 per cent of middle-class households were landless. Interestingly, there were no lower-class or lower-middle-class households that owned more than 2 acres of farmland, while a few middle-class and upper-class households did. However, across different socio-economic groups, there was generally little variation in farm ownership, except for the notable trend of a significant proportion of middle-class (40.00%) and upper-class (50.00%) households possessing at least a small piece of land, typically up to 1 acre.

An analysis of variance (ANOVA) test was conducted to assess the significance of differences in farm ownership among socio-economic groups. The results (F value: 0.133; p-value: 0.939) indicated no statistically significant difference in farm ownership across these groups. Moreover, examination of the mean farm sizes within each category revealed relatively consistent figures, with lower-class households averaging 1.23 acres, lower-middle-class households averaging 1.50 acres, middle-class households averaging 1.63 acres, and upper-class households averaging 1.56 acres.

Notably, the maximum farm sizes were observed among middle-class and upper-class households, reaching up to 3 acres. Despite the smaller average farm sizes observed among middle (0.20 acre) and upper-class (0.25 acre) households compared to lower (0.40 acre) and



lower-middle-class (1.00 acre) counterparts, the majority of lower-class and lower-middle-class households were landless. However, it is noteworthy that a significant proportion of middle-class (80.00%) and upper-class (100.00%) households owned at least a small piece of land, highlighting the prevalence of land ownership among these groups.

### **3. Public Policies and Impacts on Agricultural and Food Changes**

The dynamics of agricultural and food changes in both rural and urban contexts are significantly influenced by public policies, particularly those related to the Green Revolution and the Public Distribution System (PDS). These policies have led to notable shifts in food pathways, particularly in the production and consumption of millet versus rice. While the Green Revolution and the subsequent expansion of the PDS have favoured the widespread adoption of rice-based diets, there has been a major decline in millet production and consumption across all socio-economic categories.

#### **2.1 Major drop in millet production in the region in favour of rice and other crops**

There has been a significant decline in both millet production and consumption, with rice emerging as the preferred staple grain in the region. This transition is observed over several decades and is influenced by various factors such as government policies on the green revolution, changing agricultural practices, dietary preferences, globalizing food culture, economic shifts, and cultural changes. The Green Revolution, characterized by the introduction of high-yielding varieties of seeds, synthetic fertilizers, and pesticides, along with the expansion of the PDS, has significantly altered food pathways in both rural and urban areas. These policies aimed to increase agricultural productivity and ensure food security, particularly through the promotion of rice cultivation. Consequently, rice became more accessible and affordable, leading to its widespread adoption as the primary staple grain.

Millet, which were once dietary mainstays, gradually lost their significance due to factors such as changing agricultural practices, market preferences, and cultural influences. Historically, millets such as *ragi*, *cumbu*, *varagu*, *tinai*, and *samai* were the minor millets cultivated by farmers in the region for daily consumption. However, there has been a noticeable decline in millet cultivation over time. Many households no longer grow millets on their farms, citing reasons such as changes in agricultural practices, the introduction of high-yielding rice varieties, preference for high-yielding crops and cash crops, and the changing labour economy of rural households.

While paddy remains a major crop, especially in the Kurinjipadi block, most of the villagers interviewed for this study have shifted away from cultivating it. Instead, they cultivate dry crops such as sesame, *cumbu*, and groundnut, or an emerging trend towards cultivating cash crops like sugarcane, bananas, and maize for a better income. Barring rice and cash crop cultivation, dry crops such as sesame and *cumbu* are comparatively less resource-intensive crops in terms of irrigation, input cost and work. Farmers facing resource limitations like lack of irrigation, limited

land access, high input costs, and time constraints due to outside employment are resorting to cultivating dry crops that require fewer resources. However, even among those who continue to cultivate *cumbu*, challenges such as skin allergies caused by exposure to *cumbu* crops and the perception of inferior taste in newer *cumbu* varieties have led to a decrease in its production.

Some households express their preference for *ragi* over *cumbu* due to its nutritional benefits and taste. However, they find it increasingly challenging to cultivate *ragi* due to changing climatic conditions and water scarcity. Despite the preference for *ragi* consumption, it is notable that *ragi* cultivation in Krishnankuppam has almost vanished from the village landscape for the past few decades. Many farmers who once grew *ragi* have transitioned to other crops or abandoned cultivation altogether, resulting in the need for households reliant on *ragi* for their dietary needs to purchase it from shops.

Additionally, a considerable proportion of farmers with better access to resources opt for cash crops throughout the year due to better irrigation facilities and marketing opportunities. Despite cultivating dry crops, and comparatively less paddy cultivation, the prevalent trend is towards crop diversification and cash crop cultivation (groundnut, sugarcane, etc.) in recent years. Farmers increasingly rely on inorganic fertilizers and chemical pesticides to maximize yields and mitigate losses, viewing organic farming practices as impractical due to the perceived risk of lower yields and financial losses, especially among those heavily dependent on agriculture for their livelihoods. The shift towards cash crops and rice cultivation further underscores the economic pressures and market demands influencing farming decisions in the region. These trends highlight the complex challenges posed by changing environmental conditions, resource scarcity, and evolving agricultural practices, posing significant implications for the sustainability and resilience of local farming systems.

## **2.2 Consumption Changes in Rural and Urban Contexts**

### **2.2.1 Changes in The Rural Context**

Across rural households, there has been a significant evolution in food consumption patterns over the last four decades, cutting across class distinctions. Millets, long entrenched as the dietary mainstay, have seen a pronounced decline in favour of rice-based diets. Traditionally, millet-centric dishes such as porridge, millet rice, *ragi balls*, *adai*, and *puttu* were dietary staples, particularly for economically disadvantaged segments, as rice was reserved for special occasions due to its cost. However, factors like urbanization, globalization, and evolving agricultural practices have driven a gradual decline in millet consumption.

The advent of the Green Revolution and subsequent expansion of Public Distribution Systems dramatically altered the accessibility and affordability of rice, gradually displacing millet as the preferred grain. The introduction of rice mills and processed rice further streamlined its

consumption, bolstered by the emergence of rice-based tiffin items like *idli* and *dosa*. This shift has been reinforced by changing lifestyle choices and dietary preferences, particularly among younger generations, who gravitate towards rice for its perceived convenience. Economic considerations also influence dietary shifts, with rice often symbolizing prosperity and status, particularly in certain communities. Additionally, the perceived convenience of rice-based diets, requiring less time and effort for both processing and cooking compared to millet dishes, has contributed to their popularity. These factors collectively underscore the transition away from traditional millet-based foods in rural contexts.

Despite awareness of health benefits associated with millets, such as their high nutritional value and lower glycaemic index, their consumption in rural households has declined over the years. Economic constraints and practical limitations, particularly the time constraints and heavy workload faced by rural women, impede regular cooking and consumption of millet. Additionally, concerns about the quality and taste of modern millet varieties, exemplified by the emergence of the new *cumbu* variety locally known as "*Motta cumbu* (Bigger cumbu)," have discouraged individuals from incorporating cumbu into their diets. Respondents overwhelmingly expressed dissatisfaction with the new *cumbu* variety, citing its larger size and inferior taste compared to older varieties. Moreover, some respondents reported adverse health effects associated with the consumption of this new variety, further deterring its adoption. Primarily, most rural households now prefer *ragi* as their millet of choice.

Although millets are still consumed occasionally, especially during the summer season or on special occasions like temple festivals, their frequency of consumption has significantly declined. Some respondents nostalgically recounted how, during village marriage functions, children were not allowed to eat until all the guests had eaten their meals, as rice-based dishes were served for marriages. This tradition highlights the historical prevalence of millet-based diets in rural communities and the shift towards rice-based foods over time. Many rural households still recall fond memories of their childhood days when millet-based foods were a staple part of their diet, even for two or three meals a day, reflecting a stark difference from current dietary practices where rice-based foods dominate. Some respondents nostalgically recounted how, during village marriage functions, children were not allowed to eat until all the guests had finished their meals, as rice-based dishes were served for marriages. Elder respondents shared nostalgic stories of their youth when millet consumption was commonplace, attributing their robust health in old age to their millet-rich diets. They expressed dissatisfaction with the current trend of rice-based diets, which are often grown using chemical-intensive agricultural practices, contributing to rising rates of diabetes and hypertension in rural communities. Additionally, younger, and middle-aged women also often reflected on the challenges faced by older women in their community, who were comfortable performing tireless household and farm work even in their old age. They contrast this with their own experiences, expressing concerns about their ability to handle similar tasks in their 30s and 40s due to changing lifestyle factors and dietary habits. These women acknowledge the resilience of their

elders, attributing their ability to sustain such activities to the nutritious millet-based diets they consumed in their younger years.

Awareness of the health benefits of millet, particularly in managing diabetes, has led to increased consumption among affected individuals. However, this remains limited primarily to those with health concerns, as younger generations, influenced by urbanization and modernization, and even elders who don't have any health concerns tend to favour rice-based tiffin items over traditional millet dishes. Cultural factors also play a role, with older generations cherishing memories of traditional millet-based diets, while younger generations embrace rice-based diets as symbols of modernity and convenience. These dynamics underscore the complex interplay of socio-economic, cultural, and health factors shaping food consumption patterns in rural communities.

Across socio-economic groups in rural areas, there is a discernible shift in food consumption patterns, particularly regarding the transition from millet to rice-based diets. However, the extent and pace of this transition vary across different classes. Lower-class households maintain some traditional millet consumption practices but face challenges such as affordability, availability, and time constraints. Similarly, lower-middle-class households experience a decline in millet consumption, citing economic factors and changing dietary preferences. Middle-class households also acknowledge the health benefits of millet but cite reasons such as time constraints, convenience, and the preferences of younger family members for rice-based foods as barriers to regular millet consumption. In contrast, upper-class households exhibit a decline in millet consumption driven primarily by cultural and lifestyle factors rather than economic constraints.

*Overall, while there are disparities in consumption trends between different socio-economic groups (see Table 8 below), the overarching pattern is a decline in millet consumption in favour of rice across rural households. This transition reflects profound changes in dietary preferences influenced by socio-economic, cultural, and practical factors. Despite the nutritional significance and nostalgic value of traditional millet-based foods, the convenience and accessibility of rice have reshaped dietary patterns across rural communities.*

### **2.2.2 Changes in The Urban Context**

Across urban households, there has also been an evident shift in food consumption patterns over the last four decades. Urbanization, globalization, and changing lifestyle dynamics have led to a notable decline in traditional millet consumption, mirroring trends observed in rural areas. However, in urban settings, this transition is often accelerated due to factors like increased access to processed foods, busy lifestyles, and the influence of modern dietary preferences. Traditional millet-based dishes like *porridge*, *puttu*, and *adai*, once dietary staples, have given way to rice-based diets and convenience foods like *idli* and *dosa*, which are easy to make and readily available in urban restaurants and tiffin centres. The convenience and perceived sophistication of

rice-based foods align more closely with urban lifestyles, contributing to their popularity among urban households.

Economic considerations play a role in shaping food consumption patterns in urban households, albeit in different ways compared to rural areas. While affordability remains a factor, urban consumers also prioritize factors like convenience, taste, and perceived health benefits when making dietary choices. Cultural factors continue to influence food consumption patterns in urban contexts, although in a more diverse and cosmopolitan environment. While older generations cherish memories of traditional millet-based diets, younger urbanites often embrace rice-based foods as symbols of modern culture and convenience.

However, there is a growing appreciation for traditional millet-based foods among certain urban households, driven by a desire for healthier alternatives and a sense of nostalgia for childhood tastes and experiences. Health-conscious individuals, cultural enthusiasts, and those with a connection to their roots actively seek out and promote these foods, contributing to a revival of interest in millet consumption in urban settings. Despite the decline in traditional millet consumption among younger generations, these efforts help maintain pockets of resilience within urban communities.

Increased awareness of the health benefits associated with millet, particularly its role in managing conditions like diabetes, has led to a resurgence in millet consumption among certain segments of urban populations. Health-conscious individuals, influenced by information from social media, health professionals, and nutritional guidelines, actively seek millet-based alternatives to their rice-dominant diet. Whether men or women, those influenced by the benefits of millet also encourage other family members to eat more millet-based food. However, women play a major role in the revival of millet food into the household's food rotation because they are the primary food preparers. When motivated by external sources or their spouses, they actively cook different millet dishes and serve them to the family members. In urban households, most women respondents admitted that they force their children to eat healthy and nutritional dishes despite resistance from the children. Especially middle and upper-class household women, who are solely involved in taking care of the family, focus on healthy food options and are in the process of adding more millet food to their regular meals.

Urban households exhibit a propensity for adapting traditional millet recipes to suit modern tastes and preferences. For example, traditional millet dishes are reinvented as trendy and nutritious alternatives, such as *ragi dosa*, millet-based *gruel*, millet-based *pongal*, *upma*, and healthy sweets and savouries. The availability of diverse millet varieties in urban supermarkets and health food stores facilitates experimentation and innovation in millet-based cooking, catering to the diverse culinary preferences of urban consumers.

Socio-economic disparities manifest in consumption trends across urban households. Lower-income groups often face barriers to accessing and affording nutritious foods, including millet,

leading to a predominantly rice-based food culture with occasional inclusion of traditional millet dishes like porridge and hot gruel, especially in households with individuals affected by diabetes. Snack items like *puttu* and *adai* are also made on occasion. In contrast, higher-income households have greater access to a variety of foods, including speciality millet-based products. Over the years, middle and upper-class households have also shifted towards rice-based diets. However, in recent years, particularly after the COVID-19 outbreak, there has been a noticeable resurgence of interest in millets among these households. This renewed awareness of the nutritional value of millets has led to increased consumption of various millet varieties such as *tinai*, *varagu*, *sorghum*, and *samai*. With better economic resources and a preference for healthy food habits, these households have begun incorporating millets into their diets in innovative ways, preparing dishes like millet-based *upma*, *pongal*, *idli*, and *dosa*, as well as sweets and snacks to familiarize children with the taste of millets.

*In summary, the transition from millet to rice-based diets in urban households reflects broader shifts in dietary preferences influenced by urbanization, economic factors, health awareness, and cultural influences. While traditional millet consumption has declined overall, urban communities exhibit adaptability and innovation in incorporating millets into modern diets, reflecting the complex interplay of tradition and modernity in urban food systems.*

## **2.3 Existing Millet and Traditional Rice Consumption Behaviour in The Region**

This section examines the current status of millet and traditional rice consumption patterns in the region, highlighting how these patterns vary across different socio-economic groups and between rural and urban households.

### **2.3.1 Status of Millet Consumption**

The data on household millet consumption frequency is presented in Table 8, categorized as follows: Rarely (a few days a year), Occasionally (a few days a month or season), Weekly (once a week), Regularly (a few days a week), and Daily.

From Table 8, it can be observed that slightly more than half (53.33%) of the households expressed less frequent consumption such as occasional consumption (28.33%) and rare consumption (25.00%). The households that expressed occasional consumption themselves showed varied consumption patterns as few households consume millet only during summer seasons and special occasions like temple festivals, especially in rural households, and few households consume it whenever they have enough money in hand or enough stock of millet at home especially with rural households when they receive millet from the farmers when they go for harvesting. Though the elder members of the family like to eat millet food in a few

households, due to their kids's unfavourable preference towards millet the family doesn't consume millet regularly. Instead, they consume only on special occasions or rarely.

**Table 8 Frequency of Millet Consumption**

Residence	Class	Rarely		Occasionally		Weekly		Regularly		Daily	
		f	%	f	%	F	%	f	%	f	%
<b>Rural</b>	LC	4	40.00	4	40.00	0	0.00	2	20.00	0	0.00
	LMC	2	33.33	0	0.00	3	50.00	1	16.67	0	0.00
	MC	5	50.00	5	50.00	0	0.00	0	0.00	0	0.00
	UC	1	25.00	2	50.00	1	25.00	0	0.00	0	0.00
	<b>Total</b>	<b>12</b>	<b>40.00</b>	<b>11</b>	<b>36.67</b>	<b>4</b>	<b>13.33</b>	<b>3</b>	<b>10.00</b>	<b>0</b>	<b>0.00</b>
<b>Urban</b>	LC	1	20.00	2	40.00	0	0.00	1	20.00	1	20.00
	LMC	1	14.29	3	42.86	2	28.57	0	0.00	1	14.29
	MC	0	0.00	1	10.00	1	10.00	7	70.00	1	10.00
	UC	1	12.50	0	0.00	1	12.50	5	62.50	1	12.50
	<b>Total</b>	<b>3</b>	<b>10.00</b>	<b>6</b>	<b>20.00</b>	<b>4</b>	<b>13.33</b>	<b>13</b>	<b>43.33</b>	<b>4</b>	<b>13.33</b>
<b>Overall</b>	LC	5	33.33	6	40.00	0	0.00	3	20.00	1	6.67
	LMC	3	23.08	3	23.08	5	38.46	1	7.69	1	7.69
	MC	5	25.00	6	30.00	1	5.00	7	35.00	1	5.00
	UC	2	16.67	2	16.67	2	16.67	5	41.67	1	8.33
	<b>Total</b>	<b>15</b>	<b>25.00</b>	<b>17</b>	<b>28.33</b>	<b>8</b>	<b>13.33</b>	<b>16</b>	<b>26.67</b>	<b>4</b>	<b>6.67</b>
Chi-square based on Residence		Chi-square value:17.121; p-value: 0.002 Cramer's V: 0.534									
Chi-square based on Class		Chi-square value:15.203; p-value: 0.231									

*Note:* f - Frequency, LC- Lower Class, LMC- Lower Middle Class, MC- Middle Class, UC-Upper Class

Another half of the households consume millets at least once a week, of which 13.33 per cent consume millets once a week, 26.67 per cent consume a few days a week, and only 6.67 per cent consume millets daily in any one form of millet dish. Considering the evidence no one from rural households consumes millet daily whereas 13.33 per cent of urban households consume millet daily.

### **2.3.1.1 Rural-Urban disparities in millet consumption**

Further, A Chi-Square test was carried out to analyse relationships between the place of residence and the frequency of millet consumption. The Chi-square value (17.121) and p-value (0.002) indicate a statistically significant relationship between the place of residence and the millet consumption frequency, which means there exists a difference in millet consumption between rural and urban households. Furthermore, the Cramer's V value of 0.534 suggests a



moderate association between residence (rural/urban) and millet consumption frequency. While the difference is statistically significant, the moderate strength of the association indicates that factors beyond residence, such as education, awareness level, and access to millet sources, might also influence consumption habits.

From the table, it's evident that rural and urban households exhibit distinct patterns in millet consumption. In rural areas, daily millet consumption is virtually nonexistent, with only 10 per cent of households consuming millet regularly (at least twice a week), and another 13.33 per cent consuming them once a week. Conversely, in urban settings, 13.33 per cent of households consume millet daily, and a significant 43.33 per cent consume it regularly, with an additional 13.33 per cent consuming it once a week. This data underscores a noteworthy contrast: while 70.00 per cent of urban households consume millet at least once a week, only 23.33 per cent of rural households do so. The majority (76.67%) of rural households opt for occasional or rare millet consumption.

The disparity in consumption patterns between rural and urban areas is primarily shaped by factors linked to residence, such as access, and availability of millet and awareness of its benefits. Rural households tend to favour a limited selection of millets, primarily ragi and cumbu, across all socioeconomic strata. In contrast, urban households exhibit a broader dietary diversity, embracing a variety of millets including ragi, cumbu, thinai, varagu, panivaragu, samai, kudiraivali, and sorghum, as well as nutrient-rich blends like Nutri mix powder (comprising cumbu, thinai, ragi, wheat, black gram, and other pulses).

This urban-rural dichotomy in millet consumption underscores the broader dietary diversity prevalent among urban populations compared to their rural counterparts. Conventionally, rural communities are perceived as more conservative, often adhering to traditional food practices. Given that millets are often regarded as "old-time food" with deep cultural roots, one might expect rural households to consume them more frequently. However, the data reveals the opposite: urban households demonstrate a significantly higher frequency of millet consumption. This contrast can be attributed to the rising global and local recognition of millets as nutrient-rich superfoods, which has not only elevated their demand but also driven up their market price. Consequently, millets are increasingly viewed as premium food items, making them less accessible to lower-income households, particularly in rural areas. Limited purchasing power, coupled with restricted availability and market-driven shifts, creates barriers for rural households, even as millets gain prominence as a health-conscious choice in urban settings.

On the other hand, middle-class and upper-class urban households demonstrate a desire for a wider range of millets, including *samai*, *varagu*, *thinai*, and *sorghum*, alongside the staple ragi and cumbu. In contrast, lower-class and lower-middle-class urban households tend to favour ragi and nutrient-rich millet mixes tailored to their nutritional requirements. The emergence of Nutri mix powder as a popular dietary supplement, particularly post-COVID-19, reflects the amplified

awareness among urban households regarding nutritional food choices. In areas like Ariyankuppam, this awareness was disseminated through Self-Help Group (SHG) networks, which advocated for millet consumption and introduced the concept of Nutri mix powder. Consequently, many households have embraced this nutritious alternative, with some incorporating it into their daily routine as a morning gruel, replacing usual tea or coffee.

The significant increase in millet consumption, especially in urban areas, underscores the evolving dietary preferences and the role of awareness campaigns in promoting healthier food choices among households. Several women disclosed experiencing two distinct phases in their lives: that of a working woman and that of a homemaker. They explained that during their tenure of employment, while simultaneously managing household responsibilities, their culinary endeavours were restricted to preparing simple, routine meals due to time constraints. However, upon transitioning to a role solely dedicated to managing household affairs, they found themselves with ample time and energy to explore diverse and nutritious meal options, particularly focusing on enhancing their children's dietary intake. This revelation underscores the pivotal role of women in influencing millet consumption patterns within both rural and urban households. Besides economic considerations, the evolving responsibilities and time availability of women significantly impact the dietary choices made within households.

### **2.3.1.2 Socio-economic disparities in millet consumption**

Again a chi-square test was carried out to analyse relationships between the class categories and the frequency of millet consumption. The Chi-Square test (Chi-square = 15.203, p-value = 0.231) did not reveal a statistically significant difference in millet consumption frequency across the socioeconomic class groups. However, the smaller sample size might have restricted the test's power to detect statistically significant differences, a closer examination of the data showing the distribution of each group in the frequency table reveals potential differences in millet consumption patterns.

The overall millet consumption data illustrates a distinct pattern across socio-economic classes. Particularly in the categories of regularly and daily where households admitted consuming millet more than once a week, lower class and lower middle class households together represent only 27.69 per cent, followed by a higher representation of 35.00 per cent of the middle class and 41.67 per cent of upper class households. Conversely, in lesser consumption categories such as occasional and rare consumption, lower class households dominate with 70.33 per cent representation, followed by 55.00 per cent of the middle class, 46.16 per cent of the lower middle class, and only 33.34 per cent from upper class households. This demonstrates more clearly a positive relationship between millet consumption and social rank.

### **2.3.1.3 Prevalent millet dishes in the region**

The consumption of millet differs noticeably between rural and urban households, reflecting varying culinary traditions and socioeconomic dynamics. In rural areas, millet dishes tend to be simpler and focus on staple foods such as ragi and cumbu. Common millet dishes include porridge, *adai*, and *puttu*, with occasional variations like *ragi balls* and *ragi dosa*. Porridge, a prevalent breakfast item, is typically left to ferment overnight after cooking, commonly accompanied by simple side dishes like pickles, onion, and green chillies. While the porridge occupies the main meal, other millet dishes are often consumed as snacks rather than main meals. For instance, *Adai*, a savoury pancake made by blending flat rolling ragi dough with moringa *keerai* and onions, and cooked like roti serves as a nutritious snack option enjoyed between meals. Similarly, *Puttu*, a steamed cake comprising ragi flour, jaggery, and grated coconut, offers another snack choice.

Despite their nutritional richness and flavour, these dishes are often enjoyed casually, reflecting the nutrition-oriented culinary culture prevalent in rural households. In recent times few households even started preparing ragi dosa occasionally. Despite these offerings, concerns arise regarding children's aversion to millet flavours, leading to a preference only for snack items like *adai* and *puttu* among the younger generation. However, women often refrain from preparing these dishes frequently due to the additional processing and cooking time, coupled with their existing household and farm responsibilities.

Socioeconomic distinctions within rural communities significantly influence the consumption patterns of millet, particularly in terms of frequency and quantity, rather than the diversity of dishes prepared. Lower-income households often find themselves constrained by limited resources, both in terms of finances and time. As a result, their consumption of millet dishes tends to be less frequent compared to their higher-income counterparts. Factors such as the high cost of millet and the additional preparation time required for millet dishes like porridge, *adai* and *puttu* contribute to this disparity. Women in lower-income households, who are often engaged in other income-generating activities such as farm labour or livestock rearing, may find it challenging to allocate time for elaborate cooking processes.

Urban households, on the other hand, show a wider variety in their millet dishes, influenced by both traditional practices and contemporary culinary trends complemented by their greater access to various millet sources. While staples like *porridge*, *adai*, *puttu*, and *ragi dosa* remain prevalent, urban households also embrace innovative millet creations like *millet upma*, *pongal*, and *payasam*, alongside the increasingly popular nutrient mix powder *gruel*. Another significant difference in millet consumption between urban and rural households lies in the preparation and consumption of porridge. In rural households, porridge is traditionally prepared thick one day in advance and left to ferment overnight, resulting in an energetic breakfast option consumed cold the next morning. However, this practice is predominantly reserved for summer days in urban households, with the majority opting for a hot, instant version of porridge known as *Gruel* (*Ghanji* in Tamil). The thinner variant of porridge, typically consumed early in the morning as a

substitute for tea or coffee, contrasts with rural areas where porridge serves as a staple breakfast dish. Furthermore, while rural households primarily use ragi and cumbu for porridge, urban households capitalize on the availability of various millet varieties such as *ragi*, *cumbu*, *varagu*, and *tinai*, further diversifying their culinary offerings. This shift reflects evolving dietary habits and lifestyle preferences. Although rare, some elder women in urban households occasionally prepare rice using *samai* and *tinai* with mixed vegetables.

Socioeconomic factors also shape millet consumption in urban areas, with middle and upper-class households exhibiting a preference for a diverse range of millet-based dishes, encompassing *dosa*, *idli*, *upma*, *pongal*, and sweet delicacies infused with various millet grains. Conversely, lower-income households tend to gravitate towards more traditional millet staples, such as *fermented porridge*, *puttu*, and *adai*, which offer sustenance while aligning with budgetary constraints. However, these households also incorporated new millet diets like Nutri mix powder gruel. This amalgamation of traditional and modern culinary practices underscores the versatility of millet consumption in urban households, accommodating diverse lifestyles, tastes, and preferences across different socioeconomic strata.

#### **2.3.1.4 Various sources of millet**

There are notable disparities between rural and urban households regarding the sources from which they obtain millet, reflecting varying culinary traditions, socioeconomic dynamics, and access to resources. In rural areas, where dietary choices are often shaped by proximity to agricultural practices and local economies, households primarily rely on their own farms, neighbouring farmers, and local shops for millet procurement. Given the prevalent preference for ragi and cumbu in these areas, local resources suffice for most households, with no pressing need to explore a wider variety of millets available. While local farmers predominantly cultivate cumbu, with limited ragi production mainly for household consumption, local shops and traders in areas like Kullanchavadi and Kurinjipadi serve as major suppliers of the preferred millet, ragi. Despite seasonal variations in cultivation, ragi and cumbu remain consistently available in shops throughout the year, facilitating small-scale purchases ranging from 1 kg to 5 kg per month, depending on household needs and financial considerations. This localized approach to millet sourcing not only aligns with the agricultural cycles but also mitigates the financial burden and storage concerns associated with bulk purchases, particularly for lower-income households.

Moreover, lower and most middle-class rural households, frequently engaged in farm employment, sometimes receive millet from the farmers as part of their wages during seasonal harvest operations. Typically, these households predominantly receive cumbu during harvest seasons instead of monetary wages. Some generous farmers even provide small quantities of millet free of cost to regular farm workers. While these households are well aware of the nutritional benefits of millet, financial constraints often prevent them from purchasing ragi from local shops. Consequently, the women in these households skillfully process the received millet

by hand and utilize it primarily during the summer season or temple festivals, demonstrating resourcefulness in maximizing the nutritional benefits despite financial limitations.

In contrast, urban households predominantly rely on local shops for millet purchases, regardless of socioeconomic status. This makes sense considering the limited access to farmland in urban areas. Additionally, urban areas typically have a higher density of retail outlets, making shops a more convenient option for acquiring millets. While rural households depend only on ragi and cumbu, the urban households with a higher amount of awareness and ease of access diversify their millet choices further into *samai*, *varagu*, *panivaragu*, *tinai*, and *horse gram*. Though most households, irrespective of their class, buy millet from local stores and supermarkets in the local area and in Pondicherry town, a significant number of households tend to diversify their sources by receiving them from nearby villages, either from individuals whose native place is a nearby village or from relatives and friends who reside in villages.

Subtle distinctions arise among socioeconomic groups within urban areas, where lower-income households predominantly opt for localized millet varieties like ragi and cumbu. In contrast, middle and upper-class households venture into a broader spectrum of millet options such as *samai*, *varagu*, *panivaragu*, *tinai*, and *horse gram*. Despite these millets not being locally cultivated, their availability through widespread marketing avenues like supermarkets in Pondicherry town and specialized online platforms facilitates easy purchase. Women from middle and upper-class backgrounds, especially, have become more informed about the various millet options and their culinary advantages through government initiatives, media, and social platforms such as Facebook and YouTube. This heightened awareness has ignited a greater enthusiasm among them to try out millet-based recipes at home. Given their primary responsibility for managing household tasks, particularly cooking, and their lack of formal employment, these women have ample time and energy to experiment with nutritious and creative millet dishes. However, concerns persist among some women regarding their children's aversion to consuming millet dishes due to taste and texture preferences. This reluctance often leads to a preference for ready-made food and snack items from stores and bakeries. Consequently, interest in preparing millet-based dishes declines among some women.

A recent introduction is the Nutrimix powder, which has gained popularity in the region. Women purchase Nutrimix packages from local shops and supermarkets. These packages contain various millets and pulses in small quantities, which women purchase, grind in local mills, and store for consumption. Additionally, lower-class and lower-middle-class urban households utilize Anganwadi centres for Nutri-mix powder, indicating the potential influence of public welfare programs on nutritional food access.

*Overall, while both rural and urban households primarily access millet through local shops, the specific sources vary based on socioeconomic status, indicating differing levels of access, awareness, and preferences within these communities.*

### 2.3.2 Status of Traditional Rice Consumption

Likewise, data on traditional rice consumption frequency is presented in Table 9, categorized as follows: Never, Occasionally (a few days a year for special occasions), and Regularly (a few days a month).

**Table 9 Frequency of Traditional Rice Consumption**

Residence	Class	Never		Occasionally		Regularly	
		f	%	f	%	f	%
Rural	LC	8	80.00	2	20.0	0	0.00
	LMC	5	83.33	1	16.67	0	0.00
	MC	8	80.00	2	20.00	0	0.00
	UC	3	75.00	1	25.00	0	0.00
	<b>Total</b>	<b>24</b>	<b>80.00</b>	<b>6</b>	<b>20.00</b>	<b>0</b>	<b>0.00</b>
Urban	LC	5	100.00	0	0.00	0	0.00
	LMC	4	57.14	2	28.57	1	14.29
	MC	2	20.00	6	60.00	2	20.00
	UC	0	0.00	6	75.00	2	25.00
	<b>Total</b>	<b>11</b>	<b>36.66</b>	<b>14</b>	<b>46.67</b>	<b>5</b>	<b>16.67</b>
Overall	LC	13	86.67	2	13.33	0	0.00
	LMC	9	69.23	3	23.08	1	7.69
	MC	10	50.00	8	40.00	2	10.00
	UC	3	25.00	7	58.33	2	16.67
	<b>Total</b>	<b>35</b>	<b>58.33</b>	<b>20</b>	<b>33.33</b>	<b>5</b>	<b>8.33</b>
Chi-square based on Residence		Chi-square value:13.029; p-value: 0.001 Cramer's V: 0.466					
Chi-square based on Class		Chi-square value:11.903; p-value: 0.064					

*Note:* f - Frequency, LC- Lower Class, LMC- Lower Middle Class, MC- Middle Class, UC-Upper Class

The data presented in Table 9 shows that more than half (58.33%) of the households never consume traditional rice varieties. Most of them are not even aware of what traditional rice means or the different varieties available in the market. Another one-third (33.33%) of the households consume traditional rice varieties such as *Seeraga Samba* (*Seeraga* - Cumin; It's a popular variety known for its aromatic flavour, similar to cumin seeds. It's often used in biryanis and other special dishes), *Mappillai Samba* (*Mappillai* - Groom; It's a red rice variety known for its rich, nutty flavour and its association with weddings and celebrations. It's considered a premium variety), *Karupu Kavuni* (*Karuppu* - Black; It's a type of black rice, rich in antioxidants and other nutrients. It's often used in traditional medicinal practices and is gaining popularity for

its health benefits), and a few others. These rice varieties are mainly used by households to cook *biryani*, with respondents specifically mentioning that they buy *seeraga samba* only to cook biriyani. A meagre 8.33 per cent of the households consume any traditional rice regularly. Those who consume it regularly do not necessarily use it to make regular meals; instead, they make tiffin items like *Pongal* and *idli*, and supplementary drinks like gruel instead of tea or coffee. Nowadays, people do not use traditional rice to make cooked rice as a regular meal for lunch, for which they commonly use different brands of rice and broken rice according to their economic status. Factors such as the higher prices, the different grain properties, which make boiling traditional rice a longer process than fine rice varieties, and a general dislike for the taste of dishes cooked with traditional rice varieties, particularly among children who do not even like the dark colour of the rice or *idli*, contribute to this trend.

A chi-square test was conducted to determine the association between the place of residence and the frequency of traditional rice consumption. The Chi-square value of 13.029 and p-value of 0.001 indicate a statistically significant relationship between the place of residence and traditional rice consumption frequency, suggesting a difference in traditional rice consumption between rural and urban households. Furthermore, the Cramer's V value of 0.466 suggests a moderate association between residence (rural/urban) and traditional rice consumption frequency. The table indicates that the majority (80.00%) of rural households never consume traditional rice, with only 20.00 per cent consuming a few traditional rice varieties like *seeraga samba* and *mappillai samba* only on special occasions and for making biriyani. No households use traditional rice regularly in their food culture. Conversely, nearly two-thirds (63.34%) of urban households consume some traditional rice, and only 36.66 per cent do not consume it. Almost half (46.67%) of urban households showed occasional consumption, and 16.67 per cent showed regular consumption. In urban areas, increased awareness of the benefits of traditional rice varieties, their easy availability at local shops and supermarkets, and the influence of YouTube and other social media platforms, which provide recipes for cooking various dishes using traditional rice, contribute to this trend.

Another chi-square test was conducted to determine the association between class and traditional rice consumption frequency. The test result (Chi-square value: 11.903, p-value: 0.064) suggests no statistically significant association between class and traditional rice consumption. This implies no statistically significant difference among different socio-economic class groups in terms of their frequency of traditional rice consumption. However, examining the results presented in the table, a clear pattern shows that middle and upper-class households consume traditional rice more frequently than lower and lower-middle-class households. Though the difference is not statistically significant, the unique distribution pattern of households in each frequency category from never to regularly suggests a visible difference.

In the category of never consumed, the majority of lower class households (86.67%) belong to this category, followed by the lower middle class (69.23%), middle class (50.00%), and upper

class (25.00%) households. In contrast, the other two frequency categories, occasional consumption (LC: 13.33%, LMC: 23.08%, MC: 40.00%, UC: 58.33%) and regular consumption (LC: 0.00%, LMC: 7.69%, MC: 10.00%, UC: 16.67%), show the opposite trend in the representation of these socio-economic groups. Further closely observing the similar differences in the socio-economic classes from both rural and urban households, there is not much difference among the class categories in terms of traditional rice consumption in rural setup. However, some difference exists among different class categories among urban households, influencing the overall distribution. This difference is not statistically significant but noticeable in the pattern. In urban areas, similar differences occur for the same reasons as millet consumption. Most middle and upper-class women, with their available time to take care of family needs and their interest in providing healthy food, complemented by their better economic status, prepare and consume traditional rice more frequently. On the other hand, lower-class and lower-middle-class women, lacking time for food preparation due to employment and poor economic status, consume traditional rice less frequently. In many rural households, most never consume traditional rice.

## **2.4 Challenges and opportunities in reviving millets and traditional rice**

Despite the overall decline in millet and traditional rice consumption, findings reveal a persistent tradition of consuming porridge or gruel made from millet or traditional rice among households, particularly during the summer season. This enduring practice underscores the cultural significance and nutritional value attributed to these traditional foods. Porridge and gruel remain staple items, especially in households where individuals prioritize healthier dietary choices, such as those with diabetes. The composition of these porridges and gruels may vary, with some households incorporating millet, while others rely solely on rice or a combination of grains.

In this examination of the current food landscape, the research explored significant challenges associated with the revival of millets and traditional rice varieties. Despite growing awareness of their nutritional benefits and cultural importance, limited progress has been made in mainstreaming these traditional grains. High costs and limited market availability render millets inaccessible to many households, particularly those with lower purchasing power. Similarly, the cultivation and distribution of old rice varieties face constraints due to land use patterns, market demand, and agricultural policies. While there is a desire among certain segments of the population to embrace millets and traditional rice varieties, their revival remains constrained by economic and structural barriers. Addressing these challenges through targeted policies and initiatives is crucial for enhancing the availability and affordability of nutritious traditional foods, fostering a healthier and more sustainable food landscape in the region.



## 4. Permanence and Major Changes in The Structure of Food Consumption: Similarity Between Caste and Classes, Urban and Rural Contexts

This chapter explores the intricate dynamics of food consumption patterns among various households, focusing on similarities and differences across caste and class distinctions in both urban and rural contexts. It delves into the dietary choices of households, examining the consumption of vegetables, leafy greens (keerai), fruits, and various non-vegetarian foods. Additionally, the chapter provides a comparative analysis of outside food consumption behaviours, highlighting how economic status, cultural values, and geographic location influence these practices. By investigating these elements, the chapter aims to uncover the underlying factors that drive food consumption decisions and how they reflect broader socio-economic and cultural trends.

### 3.1 Organisation of Meals: Breakfast, Lunch, Dinner, and Snack

The organisation of meals among different households focuses on the variety of foods consumed at breakfast, lunch, dinner, and snacks. This chapter aims to understand how socio-economic status, cultural practices, and urban versus rural settings influence daily food choices.

**Table 10 List of Main Dishes**

<b>Rural</b>			
	<b>Breakfast</b>	<b>Lunch</b>	<b>Dinner</b>
<b>Frequent dishes</b>	Idli, Dosa, Rice, Ragi/Cumbu Porridge	Rice, Sambar, Spicy Gravy (Kara Kolambu), Keerai Gravy, Fish Gravy, Rasam, Curd, Vegetable Poriyal (Beetroot, Carrot, Beans, Potato, Cabbage, Banana, Yam) <i>Variety Rice for school kids</i> Lemon Rice, Tamarind Rice, Carrot Rice, Beetroot Rice, Curd Rice, Egg Fried Rice, Tomato Rice	Dosa, Rice, Chapati, Upma
<b>Occasional dishes</b>	Pongal, Poori, Chapati, Upma (Semiya/Rawa), Fermented Old Rice	Biryani (Sundays), Tamarind Gravy, Papad, Boiled Eggs, Fish Fry, Non-Veg Gravy (Chicken/Mutton/Beef Curry)	Poori, Ragi ball, Idiyappam, <b>Very few:</b> Noodles, Fried Rice
<b>Urban</b>			

	Breakfast	Lunch	Dinner
<b>Frequent dishes</b>	Idli, Dosa, Upma (Rawa/Semiya), Poori, Pongal, Gruel (Millet/Traditional rice/Nutrimix)	Rice, Sambar, Rasam, Curd, Vegetable Poriyal (Potato, Carrot, Beetroot, Beans, Cabbage, Capsicum, Yam, Bhendi, Bitter Gourd), Fish Gravy, Spicy Gravy, Keerai Gravy <i>Variety Rice for school kids:</i> Lemon Rice, Tamarind Rice, Tomato Rice, Carrot Rice, Beetroot Rice, Curd Rice, Egg Fried Rice	Idli, Dosa, Chapati, Ragi adai, Rice, Wheat upma
<b>Occasional dishes</b>	Porridge, Chapati, <b>Very few:</b> Bread, Sprouts, Oats, Pancakes, Poha, Parathas, Smoothies	Biryani, Papad, Omelette, Non-Veg Gravy (Chicken/Mutton/Beef), Boiled Eggs, Millet Rice	Poori, Idiyappam, Noodles, Rava upma <b>Very few:</b> Fried rice, Pasta, Ragi ball

*Source:* List prepared based on household interviews conducted for this study

### 3.1.1 Breakfast

Breakfast in rural households features a rich variety of traditional South Indian dishes that highlight a balance between convenience and tradition. Common breakfast items include idli, dosa, ragi/cumbu porridge, rice, and rice gruel, often accompanied by chutneys such as coconut, onion, groundnut chutney, and vegetable sambar. Many households still make their idli batter at home, emphasising a commitment to traditional culinary practices. Additionally, dishes like chapati, pongal, poori, and upma are frequently prepared, with chutneys and sambar serving as staple accompaniments. Traditional practices, such as fermenting leftover rice overnight to create a nutritious breakfast dish, remain prevalent, particularly during the summer months. This fermented rice, often complemented with curd, pickles, onions, and green chillies, is a testament to the resourcefulness and frugality ingrained in rural culinary traditions.

Ragi/cumbu porridge, a nutritious option, is prepared less frequently now due to changes in agricultural practices, dietary preferences, and the increasing price of millet. During the farming season, some farmers make an effort to prepare ragi porridge for farm labourers, though this practice has decreased due to the challenges of making large quantities. Despite this, women who regularly work on farms sometimes request porridge, leading farmers to provide it occasionally. This reflects a strong, though evolving, emphasis on traditional practices and the practical adjustments necessitated by modern economic realities and time constraints.

Urban households, by contrast, showcase a broader range of breakfast dishes influenced by modern lifestyles and diverse preferences. Beyond the staples of idli and dosa, urban families frequently prepare dishes like pongal, poori, chapatti, and upma, often paired with chutneys, sambar, and occasionally more elaborate side dishes. A noticeable trend towards health-conscious choices is evident, with urban households incorporating diabetic-friendly options such as millet and traditional rice-based gruels into their breakfast routines. Though many households prefer tiffin items like idli and dosa, they also consume millet-based gruel, sometimes replacing tea or coffee with these healthier options. Nutritious alternatives like sprouts and Nutri mix porridge are also common, although their frequency is influenced by practical constraints such as time and workload.

The urban breakfast repertoire reflects a blend of traditional and contemporary culinary practices, with convenience foods like store-bought idli/dosa batter and ready-to-cook items like semiya, noodles, and pasta is more commonly used due to busier lifestyles and easy resource availability. The diversity in breakfast choices underscores the influence of modern cultural trends and the need for quick, easy-to-prepare meals. This shift towards convenience is complemented by an increasing awareness of health and nutrition, indicating a dynamic adaptation of traditional dietary practices to fit the fast-paced urban environment.

Breakfast in both rural and urban households showcases a rich tapestry of culinary traditions shaped by socio-economic factors, availability of ingredients, and modern lifestyle influences. Rural households tend to adhere more closely to traditional practices, while urban households demonstrate a broader range of breakfast choices, balancing health considerations with time constraints.

### **3.1.2 Lunch**

In both rural and urban households, lunch is predominantly centred around rice, serving as the staple food, complemented by a variety of gravies and side dishes. A common feature found across these households is the inclusion of rice with sambar and rasam, foundational elements in many meals. Vegetable poriyals, such as those made from beetroot, carrot, beans, or potato, are frequently prepared, also they often add vegetables in sambar reflecting a focus on incorporating vegetables into the diet. Curd is another staple accompaniment, adding nutritional value and balance to the meal.

In rural households, lunch often includes rice paired with vegetable sambar, spicy gravies, fish gravy, and rasam. Non-vegetarian gravies like fish, chicken and mutton curry are regular components, especially on weekends or special occasions, highlighting a preference for diverse flavours. Additionally, dishes like vegetable poriyal are a daily feature, sometimes complemented by pickles, papad, omelette, and fish fry. On special occasions, dishes such as biriyani are prepared, adding variety to the weekly menu. These meals illustrate a blend of

traditional cooking practices with locally available ingredients, ensuring that the meals are both nutritious and satisfying.

Urban households display a similar reliance on rice for lunch, with structured meal plans that often include sambar, rasam, and various side dishes like vegetable poriyal or kootu, boiled eggs, omelette, and fish fry. Non-vegetarian dishes, such as egg, fish, or chicken, are regularly incorporated, and mutton is also incorporated at frequent intervals reflecting a broader range of culinary options available in urban markets. Special dishes like biriyani and fried rice are often prepared on weekends or for guests, showcasing culinary flexibility and access to a wider range of ingredients. These households also make pragmatic choices, using available and affordable vegetables to create balanced and flavourful meals.

Despite differences in location, the organization of lunch dishes in both rural and urban settings revolves around the central theme of rice with accompanying gravies and side dishes. The variety and complexity of these dishes can vary depending on the economic condition, preference of family members, and the time availability and workload of women, but the core components remain consistent. Non-vegetarian items like egg, fish, chicken, and mutton gravies, along with diverse vegetable poriyals, curd, and occasional special dishes, form the backbone of lunch meals in both settings. This consistent pattern highlights the cultural importance of rice in daily meals while adapting to the availability of resources and culinary traditions.

### **3.1.3 Dinner**

In both rural and urban households, dinner typically includes a mix of traditional tiffin items and rice-based dishes, with variations in preparation and preferences influenced by resource availability, family practices, and cultural influences. A common feature across these households is the preference for idli and dosa, often accompanied by chutney and sambar. These versatile and convenient dishes are staples for dinner, ensuring a balanced and easily digestible meal. Additionally, chapati is a popular choice, often served with potato kurma, coconut chutney, or simple vegetable gravies. Chapati preparation varies in frequency, but it is a common and well-liked dish across different settings.

In rural households, dinner practices mostly influenced dosa, rice and chapati. Also, these households often use leftovers from lunch, particularly rice which is served with reheated sambar, rasam, or gravy made for lunch, or with fresh gravies or curries. In urban households, similar patterns emerge, with tiffin items like idli, dosa, and chapati frequently appearing for dinner. Upma, made from rava or semiya, is another common dish prepared for dinner, offering a quick and nutritious alternative when dosa batter is not available. The reliance on easily available and quick-to-prepare items like idli and dosa batter from local shops or tiffin centres is a common trend, particularly in urban areas. This practice ensures that families can maintain a varied diet without extensive preparation time.

Urban families also incorporated modern and convenient dishes such as wheat upma, idiyappam, and occasionally store-bought noodles, and pasta, reflecting a blend of traditional and contemporary culinary influences. Dinner in many urban households also includes special items like onion dosa, modakathan dosa, ragi adai, and wheat adai, providing variety and catering to individual family preferences. These special preparations made with health-conscious decisions mainly for diabetics, highlight the adaptability and creativity in meal organization, ensuring that even with limited resources, families can enjoy diverse and nutritious dinners.

The involvement of male family members in meal preparation is noted in both rural and urban settings, particularly for dinner dishes like chapati, which can be labour-intensive. In the rural setting, the households regularly receive wheat grains from the PDS as the Tamil Nadu government provides them at subsidized prices. However, in urban settings, the Pondicherry government stopped providing grains a decade ago. So here households commonly purchase wheat flour from local shops, replacing the older practice of milling PDS wheat. The dinner practices across rural and urban households emphasize a balance between tradition and convenience, with a strong preference for tiffin items and the strategic use of leftovers. The inclusion of millet, the preparation of fresh meals when possible, and the occasional incorporation of modern dishes reflect the diverse and adaptable nature of dinner in different settings.

### **3.1.4 Differences in the organization of Meals among the households of different Socio-Economic Classes**

*In rural households*, breakfast and dinner exhibit significant differences in variety and organization across socio-economic classes. Higher-income households, including upper and middle-class families, tend to prepare a wider variety of dishes for breakfast and dinner. These families often make convenient tiffin items like idli, dosa, and chapati, and occasionally include other dishes such as poori, pongal, and upma, based on preferences. These households typically have more time and resources, enabling them to cook separate meals for breakfast, lunch, and dinner. Women in these households, who are less likely to engage in farm work, can dedicate time to preparing fresh meals throughout the day, reflecting their economic stability and prioritization of varied diets.

In contrast, lower socio-economic class households in rural areas often face constraints that limit their meal variety. These families frequently consume rice for all three meals, which is influenced by the free rice provided by PDS. Additionally, the frequent rice consumption is driven by economic necessity and the demanding schedules of women who often work as farm labourers. These women typically prepare rice with sambar or another simple gravy for both breakfast and lunch before heading to work early in the morning, as they lack the time to cook separate meals. Apart from rice, lower-class families often purchase idli from local sellers, especially to feed the kids in the morning. Sometimes, women also parcel these idlis with

children to take to school for lunch, as they do not have the time to cook food in the morning. The parents often manage with leftover rice from dinner, buying idli for the kids instead. Women who return home around lunchtime will make lunch if they do not cook in the morning, and they also use the same food for dinner if possible.

Dinner often consists of leftovers from lunch; if no food remains, they cook another batch of rice, or dosa with homemade or store-bought batter. Sometimes they prepare chapati or poori based on children's requests which was complemented by wheat provided by PDS. Traditional practices such as fermenting leftover rice overnight to create a nutritious breakfast dish, paired with onions, green chillies, and pickles, are common among these households. However, the shift to newer rice varieties, which spoil more quickly, complicates this practice. Thus, lower-income households manage their meals based on practicality and economic constraints, emphasizing a limited variety compared to their higher-income counterparts.

*Urban households* also exhibit distinct differences in meal organization based on socio-economic status, particularly for breakfast and dinner. Higher-income urban families often enjoy a diverse range of breakfast options, blending traditional and modern dietary preferences. Women in these households, who may focus primarily on household responsibilities, can prepare varied and health-conscious dishes such as millet-based porridges, traditional rice-based gruels, millet dosa, and modern dishes like noodles and pasta. Their dinners reflect similar diversity, with tiffin items like idli, dosa, and chapati being staples, occasionally complemented by wheat upma, idiyappam, and millet-based dishes like ragi adai, noodles, and fried rice. The variety and nutritional focus in their meals indicates a blend of cultural practices and modern health trends, facilitated by their economic stability and available time.

Lower-income urban households, however, often face constraints that limit their meal variety. Working women in these households, especially in lower and lower-middle-class families, tend to prepare simpler dishes with less variety due to time constraints and economic limitations. Breakfast might consist of easily prepared items such as idli or dosa from the store-bought batter, while dinner often includes leftovers from lunch or simple dishes like rice, dosa, upma, and chapati with chutney, sambar or basic vegetable gravy. The reliance on convenience foods and simpler preparations reflects the need to balance work schedules with meal preparation. Occasional purchases of ready-made meals like chicken rice or noodles for children highlight efforts to provide variety within economic constraints. Thus, the organization of meals in lower-income urban households mirrors the practical and economic challenges faced by their rural counterparts, albeit within the context of urban living.

*Overall, both rural and urban households demonstrate a clear correlation between socio-economic status and meal variety, particularly for breakfast and dinner. With more resources and time, higher-income families enjoy nutritious food and a wider range of dishes and can maintain traditional practices alongside modern dietary trends. In contrast, lower-income*

*households focus on practicality and cost-effectiveness, often resulting in simpler and more repetitive meals. This comparative analysis underscores how economic conditions and daily workloads significantly influence culinary practices and meal organization in both rural and urban settings.*

### 3.1.5 Snacks

**Table 11: List of snack items consumed by households**

	<b>Rural</b>	<b>Urban</b>
Daily Evening Snacks	Tea/coffee, sundal (boiled cowpeas/ bengal gram / green gram), boiled groundnuts, boiled tapioca, boiled maize, puttu (ragi and rice), biscuits/rusk, vadai (red gram/black gram), bonda	Tea/coffee, milk with biscuits/rusk, pakoda, sundal, cauliflower chilli, banana/chilli bajji, vadai (red gram/black gram), bonda, pani puri, samosa, boiled groundnuts, sprouted grains  Fruit Juices, moringa leaves soup, and vegetable soup
Occasional/ Festival Snacks	Murukku, athurasam, ghee balls, groundnut balls, sesame balls, kolukottai	Murukku, athurasam, kolukottai, payasam, sweet balls, kesari, carrot halwa, amla halwa, Purchased sweets

*Source:* List prepared based on household interviews conducted for this study

Snacking is an integral part of dietary habits in both rural and urban households in India. The types of snacks consumed, their preparation, and consumption patterns are influenced by various factors including cultural practices, time availability, workload, and daily schedules. For women, who are often the primary snack preparers, these factors pose specific challenges.

In rural households, there is a strong tradition of preparing homemade snacks. Daily evening snacks in rural areas are typically simple and quick to prepare, such as ragi adai, puttu, vadai, bonda, bajji, boiled pulses, boiled tapioca, and boiled corn. These snacks are usually homemade, leveraging locally available ingredients. The relatively flexible schedules of rural women enable them to prepare these snacks fresh, ensuring that children returning from school have nutritious options. For festivals and special occasions, rural households engage in bulk preparation of sweets and savouries. These sweets are made in large quantities and stored for consumption over several days or weeks, reflecting the communal and festive nature of rural life.

Women often have more flexible schedules, allowing them to engage in the bulk preparation of snacks and sweets, particularly for festivals and special occasions. Commonly prepared snacks and sweets include various savoury items such as murukku, pakodas, mixers and samosas, which are enjoyed by the entire family and also sent with children to school. However, the preparation of traditional snacks is often labour-intensive and time-consuming. Making items like murukku, athurasam, laddoos, ghee balls and kolukottai from scratch requires specific skills, and significant effort, especially during festivals when large quantities are needed. Additionally, limited access to modern kitchen appliances and storage facilities can make the preparation and preservation of snacks more challenging. Women often rely on traditional methods, which are more laborious. Apart from snack preparation, rural women are responsible for other household chores such as cooking, cleaning, and sometimes even working on agricultural farms. Balancing these responsibilities can be challenging, particularly during peak agricultural seasons or festivals.

In rural households, snack preparation is tied to cultural and familial practices, with upper-class, and middle-class families making traditional snacks during festivals and special occasions. The lower middle-class families balance work and household chores, making snacks occasionally, and relying on store-bought options for convenience. Lower-class families with poor economic status and time limitations for women, prioritize simple, affordable snacks like boiled groundnuts or tapioca, with occasional traditional items. Mostly they buy small packets of snacks and savouries from the local shops on a daily basis, especially for kids.

In urban households, snack consumption reflects modern lifestyles and convenience. The tighter schedules due to professional commitments lead to a preference for quick-to-prepare or ready-to-eat snacks. Packaged snacks like biscuits, cookies, chips, savouries, and instant noodles are popular due to their convenience. Urban women often juggle professional commitments alongside household responsibilities, leaving little time for the preparation of homemade snacks. This leads to a reliance on ready-to-eat or easy-to-prepare options. The dual burden of work and home responsibilities can be overwhelming. Urban women often have to manage their time meticulously to ensure they can prepare healthy snacks for their families, especially for children who have long school and tuition hours. The school and office timings significantly influence snacking habits in urban areas. Urban children often have longer school hours and additional tuition classes, leading them to return home late. As a result, they might skip evening snacks and go directly to dinner. So, these households often avoid preparing snacks on weekdays and prepare them only on weekends. The convenience of packaged snacks often comes at the cost of nutrition. Urban women face the challenge of finding a balance between convenience and providing nutritious snacks for their families. Preparing healthy snacks like millet savouries, and sesame balls and storing them for the week can be a practical solution, but it adds to the workload.



*Snacking habits in rural and urban households are shaped by a combination of traditional practices and modern lifestyle demands. While there is no significant difference in snacking behavior between rural and urban households, notable variations emerge in the challenges women face in preparing snacks. Rural women face the labour-intensive nature of traditional snack preparation and balancing multiple household chores, whereas urban women struggle with time constraints and the dual burden of work and home responsibilities. Despite these challenges, snacks remain an essential part of daily life across both settings, reflecting the adaptability and diversity of Indian culinary traditions.*

## **3.2 Vegetable Usage among Rural and Urban Households**

### **3.2.1 Rural Households**

In rural areas, vegetable purchase and usage exhibit a blend of traditional practices and economic necessities, transcending socio-economic boundaries. Most households, irrespective of their socio-economic status, prefer local markets such as the Kullanchavadi market, known for its fresh produce. Regularly used vegetables include staples like tomatoes, potatoes, onions, brinjals, and keera. While the availability and variety of vegetables vary by season, these staples remain consistent in rural diets. In addition to markets, street vendors and small local shops are crucial for providing fresh vegetables. These vendors often visit villages two to three times a week, offering convenience and accessibility to households by bringing vegetables from outside markets. Through the weekly market, small shops, and street vendors, rural households access a variety of vegetables, including carrots, beans, field beans, bhendi, brinjal, onion, tomato, potato, beetroot, cabbage, radish, moringa, unripe mango, unripe banana, keera, chow chow (chayote), bitter gourd, snake gourd, cluster beans, bottle gourd, yam, tapioca, cauliflower, capsicum, pumpkin, and ridge gourd.

Upper-class rural households tend to buy vegetables in bulk, often from the Kullanchavadi market, Kurinjipadi vegetable shops, and occasionally from the Cuddalore market. These families can afford large quantities, ensuring a steady supply of fresh vegetables. Their financial stability allows them to buy in bulk, store vegetables in refrigerators, and manage their supplies efficiently. Often, these households either grow some vegetables on their farms or receive fresh produce from relatives. The responsibility of purchasing vegetables typically falls on male family members who visit the market weekly and manage the household shopping.

Middle-class and lower middle class households use a mix of sources for purchasing vegetables. While they also frequent the Kullanchavadi market, they heavily rely on street vendors who bring vegetables to their streets every two to three days. This arrangement offers convenience and the opportunity to buy smaller quantities, maintaining freshness without the need for significant storage. These families often buy in bulk when financially feasible, making weekly visits to the market. During financial constraints, they make frequent smaller purchases from

street vendors. Most middle-class households are involved in farming, growing a few vegetables on their farms solely for household consumption. Refrigerators are commonly used to store vegetables, although the reliance on fresh purchases remains high to ensure quality and minimize waste.

Lower-class households, particularly those relying on daily wage income, exhibit different purchasing patterns. These families often buy vegetables in small quantities from local shops, which sell produce not by weight but by individual pieces. For instance, they might buy one or two tomatoes, a couple of potatoes, and other vegetables sufficient to cook for a single day, aligning with their limited budget. When they manage to save a bit more money, they visit the Kullanchavadi market, usually in the evenings. At the market's closing time, traders sell leftover vegetables at reduced prices, allowing these households to stretch their limited financial resources further. The limited financial resources mean they prioritize essential vegetables and buy in quantities that can be stored without refrigeration. Women in these households, along with their spouses or sons, typically handle vegetable purchases, combining market visits with local shop purchases to manage daily needs without overspending.

Across all rural classes, the use of refrigerators is common among the middle and upper classes, allowing them to store bulk purchases and extend the freshness of their vegetables. Lower-class households, due to financial constraints, often lack refrigeration and thus buy in smaller quantities more frequently. The task of purchasing vegetables generally falls on women across all classes, reflecting traditional gender roles in managing household food supplies. However, in upper-class and middle-class families, men also participate in shopping due to the volume and frequency of purchases needed.

### **3.2.2 Urban Households**

In urban settings, the variety of vegetables used by different socio-economic households does not vary significantly, though purchasing patterns reflect distinct lifestyles, financial well-being, and access to resources. Ariyankuppam vegetable market is the largest market where households can obtain a wide range of fresh vegetables from local farms as well as from other states daily. Through a comprehensive market chain and local vegetable vendors, urban households access vegetables such as carrots, beans, brinjal, chow chow (chayote), snake gourd, ridge gourd, bottle gourd, field beans, cluster beans, bitter gourd, ivy gourd, beetroot, potato, banana, banana flower, cauliflower, cabbage, radish, keerai (greens), mushroom, capsicum, bhendi, flat beans (*avaraikai*), tomato, onion, chillies, ginger, garlic, colocasia, nookal (*Brassica oleracea*), elephant foot yam (*karunaikilangu*), and rajma beans.

A few lower class and lower middle class households, often engaged in labour-intensive work or small businesses, tend to buy vegetables in bulk for a week from the local Ariyankuppam vegetable market. These families are equipped with refrigerators and adequate storage space to

keep vegetables fresh for a week, as their busy schedules often prevent them from purchasing vegetables daily. A few other families living close to the market buy vegetables daily, ensuring freshness and managing costs effectively. With limited space and resources, these families buy just enough for daily use, and any surplus is sometimes grown in small backyard patches or received from neighbours. These families prioritize affordability and accessibility, often avoiding more expensive organic markets but still seeking local street vendors who sell vegetables with minimal chemical inputs. Their daily or weekly market visits reflect a balance between convenience and necessity, ensuring they have fresh ingredients for their meals.

Urban middle-class households exhibit a more diverse and structured approach to vegetable purchasing. They use a wide range of vegetables and often buy weekly from Ariyankuppam market, supplemented by purchases from local street vendors. While some families grow vegetables on terraces or in small gardens, they largely depend on market purchases. Their preference for fresh, chemical-free produce leads them to seek out specific vendors known for quality. Upper-class urban households have greater flexibility and resources, often receiving fresh vegetables from rural relatives. They buy in bulk without financial constraints, ensuring a steady supply of high-quality produce. Convenience is key, with family members or hired help managing the purchases, and their proximity to markets allows for regular replenishment of their vegetable stock.

*Both rural and urban households express widespread concern over the excessive use of chemical fertilizers and pesticides in contemporary agricultural practices. Despite awareness of the associated health complications, households acknowledge the difficulty in obtaining organic vegetables, as most farmers rely on chemical inputs to secure better incomes from farming. Nevertheless, a few higher-income families manage to procure vegetables grown with limited chemical use from nearby farmers or the farms of relatives and friends.*

### **3.3 The Keerai and Their Recognition as A “Healthy Food”**

Keerai, i.e., green leafy vegetables, is an integral part of the diet in both rural and urban households in the study area. These vegetables are revered for their nutritional and health benefits, leading to regular consumption. The varied frequency of consumption of keerai among rural and urban households is depicted in the following table. The different frequencies of keerai consumption are categorised as occasionally (a few days a month), once a week, twice a week, and a few times a week.

#### **3.3.1 Keerai Consumption Behaviour**

**Table 11 Frequency of Keerai Consumption**

Area	Class	Occasionally	Once a week	Twice a week	A few days a week
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		<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>
Rural	LC	3	30.00	3	30.00	4	40.00	0	0.00
	LMC	1	16.67	2	33.33	1	16.67	2	33.33
	MC	2	20.00	2	20.00	5	50.00	1	10.00
	UC	0	0.00	1	25.00	3	75.00	0	0.00
	<b>Total</b>	<b>6</b>	<b>20.00</b>	<b>8</b>	<b>26.67</b>	<b>13</b>	<b>43.33</b>	<b>3</b>	<b>10.00</b>
Urban	LC	0	0.00	2	40.00	1	20.00	2	40.00
	LMC	0	0.00	0	0.00	4	57.14	3	42.86
	MC	1	10.00	1	10.00	5	50.00	3	30.00
	UC	2	25.00	3	37.50	1	12.50	2	25.00
	<b>Total</b>	<b>3</b>	<b>10.00</b>	<b>6</b>	<b>20.00</b>	<b>11</b>	<b>36.66</b>	<b>10</b>	<b>33.34</b>
Overall	LC	3	20.00	5	33.33	5	33.33	2	13.34
	LMC	1	7.69	2	15.38	5	38.46	5	38.46
	MC	3	15.00	3	15.00	10	50.00	4	20.00
	UC	2	16.67	4	33.33	4	33.33	2	16.67
	<b>Total</b>	<b>9</b>	<b>15.00</b>	<b>14</b>	<b>23.33</b>	<b>24</b>	<b>40.00</b>	<b>13</b>	<b>21.67</b>

*Note:* f - Frequency, LC- Lower Class, LMC- Lower Middle Class, MC- Middle Class, UC-Upper Class

The table shows that the majority (85.00%) of households in the study area consume one type of keeraï at least once a week, with 40.00 per cent consuming keeraï twice a week, 23.33 per cent consuming it once a week, and 21.67 per cent consuming keeraï more than twice a week. The same trend is observed in the distribution of households in keeraï consumption from both rural and urban settings. A slight variation in the frequency of consumption is visible, as among rural households, 20.00 per cent consume keeraï a few days a month, and only 10.00 per cent consume keeraï more than twice a week. In contrast, in urban settings, only 10.00 per cent consume keeraï a few days a month, and a significant 33.34 per cent consume keeraï more frequently, more than twice a week.

In rural households, keeraï plays a crucial role in daily diets, particularly during the summer months when they are more readily available. Constrained by economic limitations, rural households rely more on locally available and wild varieties of keeraï, integrating them into their diet through traditional practices. Urban households, driven by health consciousness and better access to various keeraï, adapt their consumption to fit modern lifestyles and dietary preferences. Compared to rural households, urban households consume keeraï more frequently due to a wide network, awareness, and high consideration of their health benefits.

Regarding social class, financial resources often limit the ability of rural households to purchase these keeraï from the market or local vendors. Consequently, they rely on collecting keeraï varieties from agricultural farms or receiving them from neighbours. This practice is particularly common in lower-income households. In contrast, there are no significant differences in keeraï consumption between higher and lower-income households, specifically in urban settings. All

class groups recognize the health benefits of keerai and include it in their diets, influenced by availability and seasonal factors rather than economic status.

### 3.3.2 Sources of Keerai

Both rural and urban households get keerai from different local and outside sources as depicted in Table 13.

**Table 12 Sources of Keerai for Rural and Urban Households**

Area	Class	Sources of Keerai						Owning a Moringa tree	
		Farms/Backyard Garden		Market		Street vendor			
		f	%	f	%	F	%	F	%
Rural	LC	9	90.00	1	10.00	5	50.00	5	50.00
	LMC	4	66.67	0	0.00	6	100.00	4	66.67
	MC	9	90.00	3	30.00	7	70.00	7	70.00
	UC	4	100.00	1	25.00	2	50.00	3	75.00
	Total	26	86.67	5	16.67	20	66.67	19	63.33
Urban	LC	1	20.00	4	80.00	0	0.00	2	40.00
	LMC	3	42.86	3	42.86	1	14.29	3	42.86
	MC	1	10.00	5	50.00	4	40.00	3	30.00
	UC	1	12.50	6	75.00	1	12.50	4	50.00
	Total	6	20.00	18	60.00	6	20.00	12	40.00

*Note:* f - Frequency, LC- Lower Class, LMC- Lower Middle Class, MC- Middle Class, UC-Upper Class

The table shows that a majority (86.67%) of rural households often gather keerai from agricultural farms where crops such as sesame, cumbu, and groundnut are cultivated. Kollai keerai, a term villagers use to represent the mixture of different keerai that grows naturally among these crops, is commonly collected from farms. In the study area, villagers collect keerai varieties such as ponnanganni keerai, kuppai keerai, valukkai keerai, manathakkali keerai, molai keerai, kasaraku keerai, satavarna keerai, komiti keerai, manal keerai, pasalai keerai, kuppameni keerai, and vallarai keerai. Women working as farm labourers frequently gather these greens during their work, integrating them into meals for their high water content and nutritional benefits, which are essential for those working under the sun.

It has also been found that most (63.33%) rural households grow a moringa tree in their backyard. Those who don't grow moringa trees, get them from their neighbours who grow them. So, it is very common among rural households to include moringa keerai in their diet regularly. Also, rural households typically buy keerai varieties like arai keerai, siru keerai, thandu keerai, and pulichai keerai from street vendors (66.67%) and the Kullanchavadi weekly market (16.67%). A few farmers grow specific keerai such as thandu keerai and ponnanganni keerai on

their farm primarily for self-consumption and sale within the village, ensuring a consistent supply of these nutritious keerai varieties. Few prevailing traditional practices, like fermenting leftover rice to consume with keerai, highlight the integration of keerai into local diets and its importance in managing body heat and nutritional intake.

Urban households exhibit a different pattern in keerai consumption, influenced by lifestyle and dietary preferences. All the keerai available to rural households are available to urban households irrespective of seasons through a wide market chain. Urban households source keerai from various places, including local agricultural markets (60.00%), street vendors (20.00%), and nearby farms and home gardens (20.00%). The agricultural market situated at Ariyankippam and the local street vendors bring fresh keerai daily to residential areas, making it convenient for urban dwellers to include these keerai in their diet. Also, a few urban households believe that the keerai available with local street vendors sourced from nearby farms in surrounding villages are either grown organically or with less use of chemical fertilizers and pesticides. Most households raised concerns over the excessive use of chemical inputs for keerai cultivation and admitted that it is difficult to get organic keerai in conventional farming. However, a significant portion (40.00%) of urban households grow moringa trees in their backyards, and very few households grow other keerai varieties in their home gardens, ensuring some sort of organic keerai supply. This preference underscores the growing trend towards healthier and more natural food options in urban diets.

*Comparing the rural and urban scenarios, some differences exist in how keerai is sourced and consumed. Rural households primarily rely on their farms and neighbouring lands for kollai keerai, enjoying a more direct and potentially fresher supply. Urban areas often have better access to a variety of keerai through street vendors and local markets, and fresh keerai from the surrounding villages. The perceived benefits of keerai, such as their role in managing common ailments and enhancing overall health, drive their continued consumption despite the challenges of integrating them into busy urban lifestyles.*

### **3.3.3 Perception of Health Benefits of Keerai**

Both rural and urban households recognize keerai as a nutritious and healthy food, though their consumption patterns differ due to varying economic, cultural, and practical factors. The health benefits attributed to keerai, such as improved digestion, reduced body heat, and enhanced immune function, are universally acknowledged by both rural and urban households. Culturally, keerai is more deeply integrated into rural diets, reflecting traditional practices and local knowledge. In contrast, urban consumption is more influenced by modern health trends and dietary adaptations.

It is commonly believed that consuming keerai regularly can prevent common ailments such as knee and back pain, which are often associated with modern lifestyles. Keerai is highly regarded

for its nutritional benefits, particularly its high water content. Moringa leaves, known for their high iron content, are particularly valued. Additionally, certain types of keera, like manathakkali keera, are thought to have specific medicinal properties, such as healing stomach wounds. Despite the challenges in obtaining keera during certain seasons, its inclusion in the diet is essential for maintaining family members' overall health and well-being.

### **3.3.4 Factors Affecting Keera Consumption**

While rural families acknowledge the health benefits of keera, financial resources often limit their ability to purchase these keera from local vendors. Consequently, they rely on collecting keera varieties from agricultural fields or receiving them from neighbours. This practice is particularly common in lower-income households, where the time and resources required to purchase and prepare keera are not always available. Also, cooking keera is a time-consuming process compared to other meals, as it requires proper cleaning before cooking. It also needs specific skills to cook different varieties of keera properly. The shift to non-vegetarian options, which are perceived as easier to prepare, also reflects practical considerations over traditional dietary habits.

Urban households also demonstrated a significant awareness of the health benefits of various keera varieties; however, actual consumption is often dictated by the preferences of family members, particularly children. For instance, children and young adults may prefer non-vegetarian dishes over keera, making it challenging for parents to incorporate these keera into daily meals. However, urban families, particularly in the context of rising health consciousness post-pandemic, have increased their consumption of specific types of keera like moringa leaves, known for their immune-boosting properties. Using keera in various forms, such as soups and podis (powders), reflects an adaptation to modern dietary habits. Despite the challenges of ensuring fresh keera that can last through the day, especially for school-going children, urban households continue to find innovative ways to include these keera in their diet.

Seasonal availability significantly influences the consumption patterns of keera. During the summer, keera is abundant, and both rural and urban households consume it frequently. However, during the rainy season, consumption tends to drop due to the challenges in collection and storage, as well as a prevailing belief that consuming keera during this time may lead to colds. Despite these challenges, the shared understanding of keera's health benefits ensures its continued presence in the diet. Despite these challenges, the shared understanding of keera's health benefits ensures its continued presence in the diet.

## **3.4 Fruit Consumption Behaviour of Rural and Urban Households**

### **3.4.1 Rural-Urban Disparity**

Fruit consumption behaviour in rural and urban households reveals significant disparities influenced by socio-economic status. In rural areas, particularly among lower and lower-middle-class households, fruit consumption is infrequent and largely dictated by financial constraints. Many rural households, including those in the middle and upper classes, do not consume fruits regularly due to their cost. This highlights a significant barrier to regular fruit intake. Even in higher-income rural households, fruits are mainly served to children and not regularly to adults. Fruits such as apples, sweet limes, pomegranates, grapes, bananas, and seasonal fruits like watermelons and papayas are purchased occasionally, often when there is extra income or during special outings. Some rural households admitted that they consume fruits only during festivals when they dedicate bananas to God, or when guests bring them during visits. Additionally, some rural households rely on homegrown fruits, such as bananas and jackfruits, consuming them only when they are available from their own trees.

In contrast, urban households exhibit a relatively higher frequency of fruit consumption. Even among lower and lower-middle-class urban households, fruits are consumed more regularly, including bananas, pomegranates, and seasonal fruits like watermelons. Middle and upper-class urban households tend to purchase a variety of fruits, including apples, sweet limes, oranges, and grapes, albeit not daily but with greater regularity than their rural counterparts. Among urban households, there is a general awareness of the health benefits of fruits, particularly among middle and upper-class households. These households often purchase fruits for their children and consume a variety of fruits, also including dry fruits like cashews and almonds, which are perceived as nutritious. In these households, women often pack fruits as snacks for school-going children. However, even among these groups, the actual consumption is sporadic due to time constraints and other dietary preferences. This pattern is driven by better access to markets and a slightly higher disposable income, allowing for the inclusion of fruits in their diet more frequently.

The types of fruits consumed also vary between rural and urban households. Rural households often consume local fruits such as bananas, jackfruits, and watermelons during the summer, with occasional purchases of apples, sweet limes, and pomegranates. Urban households, while also consuming local fruits like bananas and watermelons, have greater access to a variety of fruits, including imported ones like grapes, apples, oranges, sweet limes, pomegranates, and dragon fruits. Seasonal fruits such as mangoes, watermelons, sapotas, guavas, and jackfruits are common in both settings, but urban households have the advantage of a wider selection due to better market access.

### **3.4.2 Factors Influencing Fruit Consumption**

Several factors influence and restrict fruit consumption in these households. Firstly, financial constraints are a major barrier, especially for lower-income households, both rural and urban. The high cost of fruits makes them a luxury rather than a staple. The average price of fruits per



kilogram varies significantly depending on factors such as season, demand, and variety, with apples ranging from Rs. 150 to 230, pomegranates Rs. 180 to 250, oranges Rs. 50 to 100, grapes Rs. 100 to 150, bananas Rs. 50 to 70, mangoes Rs. 120 to 200, and jackfruits Rs. 40 to 60. Rural households, especially, struggle with affordability, leading to infrequent purchases. Even when fruits are bought, it is usually in small quantities or during specific occasions. Urban households also face financial barriers, but their relatively higher income allows for slightly more frequent fruit purchases.

Secondly, accessibility to fresh fruits is another factor. Rural households often have limited access to diverse fruit markets, relying on fruit shops at Kullanchavadi or periodic visits to nearby towns. Despite vendors bringing fruits to rural streets in vehicles, women, who are usually at home when the vehicles arrive, often do not have enough money on hand to purchase them. In contrast, urban households benefit from street vendors, local markets, and supermarkets that regularly supply a variety of fruits, making them more accessible.

Cultural norms and personal preferences also play a role in fruit consumption. Traditionally, these households are not frequent fruit consumers, except for bananas, jackfruits, and other locally grown seasonal fruits. Some households do not prioritize fruits in their diet, either due to a lack of habit or a preference for other types of food. This is evident in statements from both rural and urban respondents who indicated that they do not consume fruits regularly or do not have a habit of eating them regularly.

Perceptions of the health and nutritional benefits of fruits also play a role in consumption patterns. Many households recognize the health benefits of fruits but are unable to prioritize them due to cost. Some respondents mentioned that fruits are essential for children's growth and health, which is why they are prioritized for the younger members of the family. Additionally, there has been a noted change in the taste of fruits over the decades, with some respondents pondering about the superior taste and aroma of fruits in their childhood compared to the present day, attributing this change to the use of chemicals in fruit cultivation.

A unique factor impacting fruit consumption, particularly among women, is the effort required to prepare and consume fruits. Many women mentioned that they do not have the time to cut and eat fruits, leading to lower consumption among adults. In households where fresh fruits are preferred over juices, fruits other than bananas often need to be cut into pieces for easier consumption. This challenge is especially pronounced with certain fruits, like jackfruit, which require considerable effort to cut, peel, and remove seeds. In few households women frequently prepare fruit juices for their children and husbands but tend to skip consuming them themselves due to time constraints or the perceived inconvenience. Preparing fruits, making juices, serving them, and cleaning up afterward adds to their already substantial workload, as these tasks predominantly fall on women. These practices underscore broader gender dynamics, where

women, burdened with household chores and caregiving responsibilities, prioritize the dietary needs of their family members over their own.

*In conclusion, social differentiation plays a crucial role in fruit consumption patterns. The poorest households consume fruits in small quantities due to their high cost, whereas middle and upper class households, both rural and urban, have slightly better but still limited access to a variety of fruits. The overall trend indicates that while urban households consume fruits more regularly than rural households, the frequency and variety are still influenced by economic constraints and practical barriers.*

### 3.5 Preference for Veg and Non-Veg Food

In the study region, non-vegetarian consumption is predominant, largely due to its proximity to the coastal area which provides a plentiful supply of seafood such as fish, shrimp, and crabs. Additionally, typical meat sources of South India, including chicken, mutton, and beef, are readily available and locally sourced. However, there is a growing preference for vegetarianism, with some households in the region attempting to avoid non-vegetarian food and transitioning towards purely vegetarian diets. The table presents data illustrating the meal preferences of rural and urban households. The table categorizes households into “non-vegetarian”, “pure vegetarian”, and those “preferring vegetarian”, with the latter indicating households currently consuming non-veg food but trying to shift towards more vegetarian options, or where only one or two members eat non-veg while the rest prefer vegetarian dishes.

**Table 13 Meal Preference of Rural and Urban Households**

Area	Socio-economic status	Non-veg		Prefers veg		Pure veg	
		f	%	f	%	f	%
Rural	LC	10	100.00	0	0.00	0	0.00
	LMC	6	100.00	0	0.00	0	0.00
	MC	9	90.00	1	10.00	0	0.00
	UC	4	100.00	0	0.00	0	0.00
	<b>Total</b>	<b>29</b>	<b>96.67</b>	<b>1</b>	<b>3.33</b>	<b>0</b>	<b>0.00</b>
Urban	LC	5	100.00	0	0.00	0	0.00
	LMC	6	85.71	1	14.29	0	0.00
	MC	8	80.00	1	10.00	1	10.00
	UC	5	62.50	2	25.00	1	12.50
	<b>Total</b>	<b>24</b>	<b>80.00</b>	<b>4</b>	<b>13.33</b>	<b>2</b>	<b>6.67</b>
Overall	LC	15	100.00	0	0.00	0	0.00
	LMC	12	92.31	1	7.69	0	0.00
	MC	17	85.00	2	10.00	1	5.00

	UC	9	75.00	2	16.67	1	8.33
	<b>Total</b>	<b>53</b>	<b>88.33</b>	<b>5</b>	<b>8.33</b>	<b>2</b>	<b>3.33</b>

*Note:* f - Frequency, LC- Lower Class, LMC- Lower Middle Class, MC- Middle Class, UC-Upper Class

From the data, it can be observed that a vast majority (88.33%) of households interviewed consume non-veg food, while 8.33 per cent prefer vegetarian food. Within this minority of preferring veg, there are households where all members eat non-veg but prefer to transition towards a vegetarian diet, or where most members are vegetarians but a few, usually men, still consume non-veg food. In these cases, non-veg food is either cooked occasionally at home or bought from restaurants, with a preference for vegetarian meals being more significant in urban areas. Specifically, 13.33 per cent of urban households prefer vegetarian food, whereas only 3.33 per cent of rural households do. Additionally, 6.67 per cent of urban households are pure vegetarians, in contrast to rural areas where no households are entirely vegetarian, indicating that non-veg food consumption is prevalent in every rural household.

In rural households, despite the widespread consumption of non-veg food, many families adhere to traditional practices involving fasting and avoiding non-veg foods on specific days and during certain religious months like Purattasi. Families often avoid non-veg food on auspicious days such as Tuesdays, Fridays, and no-moon days, reflecting their strong religious and cultural beliefs. Non-veg food remains a common part of the diet, especially among children who often prefer it. However, some families restrict non-veg consumption to specific days, like Sundays, when the whole family is at home. Financial constraints also play a role, with some families opting for vegetarian meals more frequently due to the higher cost of non-veg items.

Urban households exhibit a more varied approach to dietary preferences, with some families gradually adopting a predominantly vegetarian diet due to health beliefs. This shift is often led by the head of the family, with parents adhering strictly to vegetarian diets while children may consume non-veg foods at school or with friends. Personal reasons, such as childhood experiences or empathy towards animals, also influence a few families to avoid non-veg food. Some vegetarian families expressed regret over raising their children as vegetarians after realizing the nutritional benefits of meat. Conversely, a few other families argue that all necessary nutrients found in non-vegetarian dishes are also available in vegetarian foods. Despite these shifts towards vegetarianism, many urban families continue to include non-veg food in their diet, albeit with certain restrictions based on religious practices. Similar to rural areas, urban households avoid non-veg food on specific days and during certain months, adhering to cultural and religious norms.

*While non-veg food consumption remains dominant in both rural and urban households, urban areas show a more significant trend towards vegetarianism, driven by health beliefs and personal values. In contrast, rural households, despite their adherence to traditional fasting*

*practices, maintain a more consistent inclusion of non-veg food in their diets, influenced by cultural and financial factors.*

### 3.5.1 Consumption of Seafood (Fish, Prawn & Crab)

As the region is near the coast, it is inevitable for households to include seafood in their meals. The table illustrates the seafood consumption behaviour of both rural and urban households.

**Table 14 Seafood Consumption Behaviour of Rural and Urban Households**

Area	Socio-economic status	Never		A few times a month		Once a week		Twice a week		Thrice a week	
		f	%	f	%	f	%	f	%	f	%
Rural	LC	0	0.00	0	0.00	5	50.00	2	20.00	3	30.00
	LMC	0	0.00	0	0.00	3	50.00	2	33.33	1	16.67
	MC	0	0.00	2	20.00	5	50.00	2	20.00	1	10.00
	UC	0	0.00	0	0.00	3	75.00	1	25.00	0	0.00
	<b>Total</b>	<b>0</b>	<b>0.00</b>	<b>2</b>	<b>6.67</b>	<b>16</b>	<b>53.33</b>	<b>7</b>	<b>23.33</b>	<b>5</b>	<b>16.67</b>
Urban	LC	0	0.00	0	0.00	0	0.00	4	80.00	1	20.00
	LMC	0	0.00	1	14.29	1	14.29	4	57.14	1	14.29
	MC	1	10.00	1	10.00	3	30.00	5	50.00	0	0.00
	UC	1	12.50	2	25.00	3	37.50	0	0.00	2	25.00
	<b>Total</b>	<b>2</b>	<b>6.67</b>	<b>4</b>	<b>13.33</b>	<b>7</b>	<b>23.33</b>	<b>13</b>	<b>43.33</b>	<b>4</b>	<b>13.33</b>
Overall	LC	0	0.00	0	0.00	5	33.33	6	40.00	4	26.67
	LMC	0	0.00	1	7.69	4	30.77	6	46.15	2	15.38
	MC	1	5.00	3	15.00	8	40.00	7	35.00	1	5.00
	UC	1	8.33	2	16.67	6	50.00	1	8.33	2	16.67

	<b>Total</b>	<b>2</b>	<b>3.33</b>	<b>6</b>	<b>10.0 0</b>	<b>23</b>	<b>38.33</b>	<b>20</b>	<b>33.33</b>	<b>9</b>	<b>15.0 0</b>
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*Note:* f - Frequency, LC- Lower Class, LMC- Lower Middle Class, MC- Middle Class, UC-Upper Class

From the data, it can be observed that the majority (86.66%) of the households interviewed consume some form of seafood, such as fish, prawns, or crabs, at least once a week. Seafood, particularly fish, is a staple in many household diets in the region, especially in areas near the coast. Although Ariyankuppam is located near the coast, a small portion (6.67%) of urban households abstain from consuming fish entirely due to personal or familial preferences. In contrast, all rural households in the area include seafood in their diet. Rural households often purchase fish from local vendors who bring fresh catches to their doorsteps, facilitating frequent consumption, typically multiple times a week. Common varieties include vala meen, chennavara, and Sankara fishes, while more expensive types like vanjaram and vavva fishes are reserved for special occasions or when guests visit.

The preference for fish over other non-veg food items in rural areas is influenced by cost and availability. Fish is generally more affordable and accessible compared to chicken or mutton, making it a practical choice for many rural families, particularly those with lower incomes. However, fish consumption is avoided on auspicious days and during specific religious observances.

Urban households also consume seafood regularly, with 79.99 per cent of urban households eating fish at least once a week, 13.33 per cent consuming seafood a few times a month, and 6.67 per cent of households never consuming fish, as they are pure vegetarian families. Urban purchasing habits for seafood vary based on personal preference and financial considerations. Many urban families buy fish from local vendors or specialized fish stores, and despite the convenience of urban living, the preference for fresh fish remains strong. Some families even go to long distances to source fish from coastal villages to ensure quality and freshness. Like rural practices, urban households also avoid seafood on certain religious and cultural days.

*Seafood consumption is a significant part of both rural and urban diets, with a notable preference for fish due to its affordability and availability. While rural households benefit from the convenience of local vendors, urban households often seek out fresh, high-quality fish, demonstrating a shared cultural value placed on seafood across different settings.*

### **3.5.2 Consumption of Eggs**

Eggs are a versatile and affordable protein staple in many diets. The table highlights the egg consumption patterns among rural and urban households.

**Table 15 Egg Consumption Behaviour of Rural and Urban Households**

Area	Socio-economic status	Never		A few days a month		Upto 3 days a week		More than 3 days a week	
		f	%	f	%	f	%	f	%
Rural	LC	0	0.00	6	60.00	1	10.00	3	30.00
	LMC	0	0.00	3	50.00	1	16.67	2	33.33
	MC	0	0.00	4	40.00	0	0.00	6	60.00
	UC	0	0.00	0	0.00	2	50.00	2	50.00
	<b>Total</b>	<b>0</b>	<b>0.00</b>	<b>13</b>	<b>43.33</b>	<b>4</b>	<b>13.33</b>	<b>13</b>	<b>43.33</b>
Urban	LC	0	0.00	2	40.00	1	20.00	2	40.00
	LMC	0	0.00	3	42.86	1	14.29	3	42.86
	MC	1	10.00	3	30.00	1	10.00	5	50.00
	UC	1	12.50	0	0.00	1	12.50	6	75.00
	<b>Total</b>	<b>2</b>	<b>6.67</b>	<b>8</b>	<b>26.67</b>	<b>4</b>	<b>13.33</b>	<b>16</b>	<b>53.33</b>
Overall	LC	0	0.00	8	53.33	2	13.33	5	33.34
	LMC	0	0.00	6	46.15	2	15.38	5	38.46
	MC	1	5.00	7	35.00	1	5.00	11	55.00
	UC	1	8.33	0	0.00	3	25.00	8	66.67
	<b>Total</b>	<b>2</b>	<b>3.33</b>	<b>21</b>	<b>35.00</b>	<b>8</b>	<b>13.33</b>	<b>29</b>	<b>48.33</b>

*Note:* f - Frequency, LC- Lower Class, LMC- Lower Middle Class, MC- Middle Class, UC-Upper Class

The data presented in the tables shows that a vast majority (96.67%) of households interviewed consume eggs, which aligns with the total non-vegetarian households interviewed. It was also observed that almost half (48.33%) of households consume eggs at least three days a week, 13.33 per cent consume eggs up to three days a week, and 35.00 per cent consume eggs a few days a month. Comparing rural and urban households, a similar trend was observed, but there is considerable variation in the two extreme consumption categories. In rural households, an equal 43.33 per cent falls under those who consume eggs at least three days a week and those who consume eggs only a few days a month. In contrast, among urban households, slightly more than half (53.33%) consume eggs at least three days a week, while fewer (26.67%) consume eggs less frequently, a few days a month.

In rural areas, eggs are a versatile and affordable source of protein, making them a common part of the diet, especially for children. However, the frequency of egg consumption can be limited by economic constraints, with some families unable to afford eggs daily. Egg consumption is influenced by both availability and economic factors. Many rural families keep chickens and thus have a regular supply of country eggs. However, not all households that raise country chickens consume these eggs regularly because they are more expensive than broiler eggs. Households with higher incomes prefer country eggs for their health and nutritional benefits, even though they are costlier. Conversely, households with fewer resources often prefer to sell the more expensive country eggs and buy cheaper broiler eggs for their consumption.

Eggs are often included in school meals, ensuring that children receive adequate nutrition even if eggs are not regularly consumed at home. Thus, children who consume mid-day meals at school typically eat eggs regularly. Despite the benefits, some families refrain from consuming eggs on specific religious days or during fasting periods.

In urban areas, eggs are a staple for many households due to their convenience and nutritional value. With greater awareness of health and nutrition, urban families typically purchase broiler eggs from local stores and supermarkets and store them in the fridge for easy access. Very few households with better economic status and more health concern over broiler eggs, tend to buy country eggs with higher price, or get them directly from their rural connections. In a family interviewed the son mentioned that eventhough he wanted to consume country eggs for his physical fitness related to his daily workout routine, he stoped buying it, and consuming broiler eggs since his father have raised concern over increase in expenses on account of hime for buying country eggs.

In urban areas, eggs are a dietary staple for many households due to their convenience and nutritional value. With increasing awareness of health and nutrition, most urban families purchase broiler eggs from local stores or supermarkets and store them in refrigerators for easy access. However, a small number of households with higher economic means and greater health concerns about broiler eggs opt for pricier country eggs, often sourced directly from rural connections. In one lower middle class family, a son shared that, despite his preference for country eggs to support his fitness regimen and daily workouts, he switched to consuming broiler eggs after his father expressed concerns about the rising expenses associated with purchasing country eggs specifically for him.

They use eggs to prepare a variety of dishes like egg podimass, omelettes, half-boils, or even egg gravy, depending on their preferences. The regular inclusion of eggs in the diet is more common in urban settings compared to rural ones, reflecting a greater economic ability to purchase them regularly. In households where children prefer to eat non-veg food daily, parents often make eggs even for breakfast as either a boiled egg or as an omelette to compensate for other non-veg items. Additionally, some women prepare egg rice for their children to pack for school lunches. Like rural practices, urban households restrict egg consumption on certain religious days. However, overall, eggs are more consistently integrated into urban diets, often forming a key part of breakfast and school lunches for children.

### **3.5.3 Consumption of Chicken**

Chicken is a popular and widely consumed protein source in the region. The table illustrates the chicken consumption behaviour of both rural and urban households.

**Table 16 Chicken Consumption Behaviour of Rural and Urban Households**

Area	Socio-economic status	Never		Occasional		Once a month		Twice a month		Once a week	
		f	%	f	%	f	%	f	%	f	%
Rural	LC	0	0.00	0	0.00	1	10.00	4	40.00	5	50.00
	LMC	1	16.67	1	16.67	2	33.33	1	16.67	1	16.67
	MC	1	10.00	2	20.00	2	20.00	3	30.00	2	20.00
	UC	0	0.00	0	0.00	0	0.00	2	50.00	2	50.00
	<b>Total</b>	<b>2</b>	<b>6.67</b>	<b>3</b>	<b>10.00</b>	<b>5</b>	<b>16.67</b>	<b>10</b>	<b>33.33</b>	<b>10</b>	<b>33.33</b>
Urban	LC	0	0.00	0	0.00	0	0.00	3	60.00	2	40.00
	LMC	0	0.00	1	14.29	0	0.00	2	28.57	4	57.14
	MC	1	10.00	2	20.00	2	20.00	4	40.00	1	10.00
	UC	2	25.00	0	0.00	2	25.00	1	12.50	3	37.50
	<b>Total</b>	<b>3</b>	<b>10.00</b>	<b>3</b>	<b>10.00</b>	<b>4</b>	<b>13.33</b>	<b>10</b>	<b>33.33</b>	<b>10</b>	<b>33.33</b>
Overall	LC	0	0.00	0	0.00	1	6.67	7	46.67	7	46.67
	LMC	1	7.69	2	15.38	2	15.38	3	23.08	5	38.46
	MC	2	10.00	4	20.00	4	20.00	7	35.00	3	15.00
	UC	2	16.67	0	0.00	2	16.67	3	25.00	5	41.67
	<b>Total</b>	<b>5</b>	<b>8.33</b>	<b>6</b>	<b>10.00</b>	<b>9</b>	<b>15.00</b>	<b>20</b>	<b>33.33</b>	<b>20</b>	<b>33.33</b>

*Note:* f - Frequency, LC- Lower Class, LMC- Lower Middle Class, MC- Middle Class, UC-Upper Class

The table shows that one-third (33.33%) of households interviewed consume chicken once a week, and another 33.33 per cent consume chicken twice a month. Additionally, 15.00 per cent consume chicken occasionally, typically during special occasions like festivals or when guests visit, while 8.33 per cent never consume chicken. This trend is consistent among both rural and urban households, with very slight variation in the never-consumed category. There is no significant difference in the chicken consumption pattern among different socio-economic classes, although economic conditions do influence chicken consumption slightly.

Chicken is a popular non-vegetarian item in rural households. The data shows that half (50.00%) of rural households consume chicken at least once a month, and another 33.33 per cent consume chicken once every week. This trend indicates that chicken consumption is widespread among rural households. The majority (89.29%) of these households prefer broiler chicken due to its affordability and easy availability. Only 10.71 per cent of rural households consume country chicken, and most of them raise their own chickens. Some other households also raise country chickens but prefer broiler chickens due to their poor economic status. Despite concerns about broiler chickens, most lower income households sell country chicken for better returns and buy broiler chickens for their needs.

Chicken is usually consumed on weekends or special occasions, with preparations often including dishes like chicken gravy, fried chicken, and chicken biryani. Many rural families



avoid chicken during specific religious observances and fasting periods, limiting its consumption to a few days each month.

Urban households consume chicken as frequently as rural ones, but there is growing awareness and concern about the quality of broiler chicken. This has led some families to reduce their chicken intake, opting for fish, mutton, or vegetarian alternatives instead. When urban households consume chicken, it is often prepared in various ways, including curries, biryani, and fried dishes, with varieties like grilled chicken, and chicken 65. Preferences for chicken vary within urban families, with some members favouring it more than others. Urban households also observe cultural and religious practices that restrict chicken consumption on certain days, but overall, chicken remains a popular choice for its versatility and ease of preparation.

Economic constraints and cultural practices significantly influence chicken consumption. Both rural and urban households prefer broiler chicken over country chicken. Despite health concerns about broiler chicken, the majority (90.91%) of households consume it more often. Some households (9.09%) avoid broiler chickens due to fears about chemical and hormone use in poultry farming, preferring country chicken as a safer alternative. However, due to the higher cost of country chicken, some higher-income households prefer to buy mutton instead.

### 3.5.4 Consumption of Mutton

Mutton is a favoured meat option, often reserved for special occasions. In the region mutton consumption predominantly involves goat meat, with sheep meat being consumed only rarely. Table 18 details the mutton consumption habits of rural and urban households.

**Table 17 Mutton Consumption Behaviour of Rural and Urban Households**

Area	Socio-economic status	Never		Occasionally		Once a month		Twice a month		Once a week	
		F	%	f	%	f	%	f	%	f	%
Rural	LC	0	0.00	3	30.00	0	0.00	4	40.00	3	30.00
	LMC	0	0.00	1	16.67	3	50.00	1	16.67	1	16.67
	MC	1	10.00	1	10.00	2	20.00	3	30.00	3	30.00
	UC	0	0.00	1	25.00	0	0.00	2	50.00	1	25.00
	<b>Total</b>	<b>1</b>	<b>3.33</b>	<b>6</b>	<b>20.00</b>	<b>5</b>	<b>16.67</b>	<b>10</b>	<b>33.33</b>	<b>8</b>	<b>26.67</b>
Urban	LC	0	0.00	1	20.00	1	20.00	3	60.00	0	0.00

	LMC	0	0.00	1	14.29	2	28.57	2	28.57	2	28.57
	MC	1	10.00	3	30.00	1	10.00	4	40.00	1	10.00
	UC	2	25.00	0	0.00	1	12.50	1	12.50	4	50.00
	<b>Total</b>	<b>3</b>	<b>10.00</b>	<b>5</b>	<b>16.67</b>	<b>5</b>	<b>16.67</b>	<b>10</b>	<b>33.33</b>	<b>7</b>	<b>23.33</b>
Overall	LC	0	0.00	4	26.67	1	6.67	7	46.67	3	20.00
	LMC	0	0.00	2	15.38	5	38.46	3	23.08	3	23.08
	MC	2	10.00	4	20.00	3	15.00	7	35.00	4	20.00
	UC	2	16.67	1	8.33	1	8.33	3	25.00	5	41.67
	<b>Total</b>	<b>4</b>	<b>6.67</b>	<b>11</b>	<b>18.33</b>	<b>10</b>	<b>16.67</b>	<b>20</b>	<b>33.33</b>	<b>15</b>	<b>25.00</b>

*Note:* f - Frequency, LC- Lower Class, LMC- Lower Middle Class, MC- Middle Class, UC-Upper Class

Table 18 shows that half (50.00%) of households interviewed consume mutton at least once a month, while 25.00 per cent consume mutton once a week. Additionally, 18.33 per cent of households consume mutton occasionally, specifically during festival days, and 6.67 per cent never consume mutton. The consumption patterns for mutton are similar to those for chicken, with 33.33 per cent of households consuming both types of meat twice a month. This suggests that these households typically alternate between chicken and mutton, mostly on Sundays. Some households prefer to serve a variety of meats including chicken, mutton, and fish on Sundays, accommodating the varied preferences of each family member. Women noted that Sundays are often the only day when children and husbands are home, allowing the family to enjoy these meals together. Hence, they prepare everyone's favourite non-veg dishes on holidays.

Mutton is considered a delicacy in both rural and urban households, often reserved for special occasions or weekend meals due to its higher cost compared to other non-veg items. Rural families usually purchase mutton from local meat shops, to ensure its freshness. For special occasions like festivals, mutton is often dedicated to God and used in feasts for relatives and villagers, a practice common during ceremonies such as ear-piercing ceremonies. Mutton dishes are typically elaborate, reflecting the effort and expense involved in their preparation.

There is no major difference in the overall mutton consumption behaviour between rural and urban households; however, economic limitations significantly influence the frequency of consumption. Many lower-class and lower-middle-class households are unable to afford mutton

regularly. The data clearly shows that 41.67 per cent of upper-class households consume mutton once every week, whereas only 20.00 per cent of lower-class households, 23.08 per cent of lower-middle-class households, and 20.00 per cent of middle-class households consume mutton weekly. Additionally, cultural practices also play a role in mutton consumption, with families avoiding it during fasting periods and on auspicious days.

Most rural households source mutton from local meat shops or Kullanchavadi. However, some households, typically upper-class, do not prefer locally sourced meat due to concerns about freshness and hygiene. They travel to Kurinhipadi or even to Cuddalore for better quality mutton. In contrast, urban families source mutton from the plentiful meat shops available locally. The preparation of mutton often involves traditional recipes passed down through generations, making it a cherished part of family meals on special occasions. Some urban households also take advantage of modern conveniences, buying mutton from premium mutton shops where it is often sold hygienically with premium quality. This reflects a blend of tradition and modernity in their consumption patterns.

### 3.5.5 Consumption of Beef and Pork

Beef and Pork consumption are not as common as other meat sources in the region. Consumption of these types of meat varies significantly due to cultural and religious practices. The table examines the beef and pork consumption patterns among rural and urban households.

**Table 18 Beef and Pork Consumption Behaviour of Rural and Urban Households**

Area	Socio-economic status	Beef						Pork	
		Never		Occasionally		Once a week		Only men	
		f	%	F	%	f	%	F	%
Rural	LC	2	20.00	7	70.00	1	10.00	1	10.00
	LMC	0	0.00	5	83.33	1	16.67	0	0.00
	MC	9	90.00	1	10.00	0	0.00	3	30.00
	UC	4	100.00	0	0.00	0	0.00	0	0.00
	<b>Total</b>	<b>15</b>	<b>50.00</b>	<b>13</b>	<b>43.33</b>	<b>2</b>	<b>6.67</b>	<b>4</b>	<b>13.33</b>
Urban	LC	4	80.00	1	20.00	0	0.00	0	0.00
	LMC	6	85.71	1	14.29	0	0.00	0	0.00
	MC	10	100.00	0	0.00	0	0.00	0	0.00
	UC	7	87.50	1	12.50	0	0.00	0	0.00
	<b>Total</b>	<b>27</b>	<b>90.00</b>	<b>3</b>	<b>10.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
Overall	LC	6	40.00	8	53.33	1	6.67	1	6.67
	LMC	6	46.15	6	46.15	1	7.69	0	0.00
	MC	19	95.00	1	5.00	0	0.00	3	15.00
	UC	11	91.67	1	8.33	0	0.00	0	0.00

	<b>Total</b>	<b>42</b>	<b>70.00</b>	<b>16</b>	<b>26.66</b>	<b>2</b>	<b>3.33</b>	<b>4</b>	<b>6.67</b>
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*Note:* f - Frequency, LC- Lower Class, LMC- Lower Middle Class, MC- Middle Class, UC-Upper Class

Beef consumption is uncommon among both rural and urban households in the region, primarily due to cultural and religious reasons. The data presented in the table shows that most (70.00%) of the households interviewed never consume beef, followed by 26.66 per cent who consume it occasionally, and only 3.33 per cent who consume it every week. Among urban households, a vast majority (90.00%) never consume beef, and only 10.00 per cent consume it occasionally. None of the urban households interviewed consume beef regularly. Conversely, half (50.00%) of rural households admitted that they never consume beef, while 43.33 per cent consume it occasionally, and 6.67 per cent consume it once a week.

The socio-economic dimensions reveal that a majority (70.00%) of lower-class households consume beef occasionally, 10.00 per cent consume it weekly, and 20.00 per cent never consume beef. Similarly, in the lower middle class, a majority (83.33%) consume beef occasionally, 16.67 per cent weekly, and none refrain from it entirely. In contrast, only 10.00 per cent of middle-class households show occasional consumption, and no upper-class households consume beef. Notably, all lower-class households belong to Dalits, and the lower middle-class households are predominantly Christian. The middle and upper-class households belong to the Hindu upper caste categories. This indicates that religious and communal factors significantly influence beef consumption in rural households, with lower-caste individuals consuming beef while upper-caste households avoid it.

Among urban households, there is no clear socio-economic distinction in beef consumption. However, with very few households consuming beef, cultural, religious<sup>3</sup>, and caste beliefs play a major role in those that avoid it. Health concerns and dietary preferences also influence beef consumption in some urban households. In a specific urban household, despite the son's desire to consume beef for fitness purposes, strong resistance from his father, citing caste-specific reasons, prevented him from doing so.

Pork consumption in rural areas is quite limited and often influenced by cultural and religious beliefs. The majority (86.67%) of rural households completely avoid pork consumption due to these factors. In another 13.33 per cent of households where pork is consumed, it is usually only the male members who consume pork. Pork is often prepared and eaten discreetly, typically outside the main living area to avoid offending other family members who do not consume it. Among urban households, none of the households interviewed consume pork. It is evident that pork consumption is rare, as the preference for chicken, mutton, and fish is strong,

### 3.5.6 Consumption of Wild food

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<sup>3</sup>The study included 3.33 per cent of muslim (one respondent), and 13.33 per cent christians urban households.

Wild foods such as freshwater fish, crabs, snails, and shellfish are traditionally consumed, particularly among rural households. These foods are often sourced from privately owned wetlands or common water bodies within the villages. Notably, there was no mention of hunted wild foods in the survey. Table 19 explores the consumption patterns of these wild foods among both rural and urban households.

**Table 19 Wild food Consumption Behaviour of Rural and Urban Households**

Area	Socio-economic status	Yes		No	
		f	%	f	%
Rural	LC	7	70.00	3	30.00
	LMC	4	66.67	2	33.33
	MC	3	30.00	7	70.00
	UC	1	25.00	3	75.00
	<b>Total</b>	<b>15</b>	<b>50.00</b>	<b>15</b>	<b>50.00</b>
Urban	LC	1	20.00	4	80.00
	LMC	0	0.00	7	100.00
	MC	0	0.00	10	100.00
	UC	0	0.00	8	100.00
	<b>Total</b>	<b>1</b>	<b>3.33</b>	<b>29</b>	<b>96.67</b>

*Note:* f - Frequency, LC- Lower Class, LMC- Lower Middle Class, MC- Middle Class, UC-Upper Class

In rural households, the consumption of wild foods, particularly freshwater crabs and snails, is deeply entrenched in tradition, with approximately half (50.00%) of rural households engaging in the practice, notably during the rainy season when these creatures are abundant in paddy fields and water bodies. Fish, crabs, snails, and shellfish are commonly harvested, meticulously cleaned, and transformed into savoury gravies or other delectable dishes within the confines of home kitchens. This cultural practice often intertwines with agricultural endeavours, with farm labourers seizing the opportunity to gather these wild delicacies during activities such as paddy transplantation and inter-cultivation tasks like weeding.

However, a noticeable disparity emerges when examining consumption patterns across different socio-economic classes. A larger proportion of lower-class (70.00%) and lower-middle-class (66.67%) households partake in the consumption of these wild foods, in stark contrast to the mere 30.00 per cent of middle-class and 25.00 per cent of upper-class households who indulge in such fare. Cultural and caste factors exert significant influence over the consumption of these wild foods. While households from lower socio-economic strata eagerly embrace the opportunity to collect and savour wild foods whenever available, their counterparts from the middle and upper classes exhibit a marked preference for market-sourced seafood, driven by considerations of convenience and perceived safety. This shift in consumption habits regarding wild foods is further exacerbated by a diminishing knowledge of traditional preparation methods, particularly

when it comes to crabs and snails, coupled with a growing preference for readily available alternatives. However, no negative perceptions regarding the purity of crabs and snails, whether freshwater or seafood, were observed across all socio-economic classes within the village. The variation in consumption behaviors across these socio-economic groups is largely driven by cultural practices, the availability of wild foods, inherited culinary knowledge, and changing dietary preferences.

Despite these socio-economic dynamics, villagers lament the declining frequency and accessibility of wild foods over the years, attributing this decline to the widespread use of chemical fertilizers and pesticides, which disrupt the natural habitats of these creatures. Despite these challenges, some rural families continue to collect wild foods, valuing them for their taste and nutritional benefits. Traditional knowledge plays a crucial role, as older family members often know how to clean and cook these foods, though this knowledge is less common among younger generations. Additionally, street vendors sometimes bring sea crabs to rural areas, supplementing the local diet. Overall, while the practice of consuming wild foods persists, it faces significant challenges from modern agricultural practices and changing dietary preferences.

In urban households, however, a markedly different scenario unfolds regarding wild food consumption. Wild food consumption is rare, limited to only one lower-class urban household interviewed. Urban families predominantly rely on commercially sourced seafood rather than undertaking the challenging task of harvesting it themselves. Sea crabs, and sellfish for instance, are often bought from street vendors rather than being gathered from natural sources. This shift is influenced by several factors, including the busy urban lifestyle that leaves little time for the collection and preparation of wild foods, and concerns about food safety and quality. Additionally, the knowledge of how to clean and cook wild foods is less prevalent among urban dwellers, especially among the younger generations who have grown up with different dietary habits. Nonetheless, there exists a nostalgic undercurrent, with older family members often regaling tales of the unparalleled flavour of wild foods sourced from rural environs. Despite these sentimental ties, convenience and accessibility emerge as primary drivers of urban food consumption patterns, fostering a predilection for commercially sourced non-vegetarian items over traditional wild foods. This trend reflects a broader societal shift towards convenience and away from the laborious practices associated with traditional wild food consumption.

*In conclusion, non-vegetarian food consumption remains a prevalent and culturally significant practice among both rural and urban households, albeit with notable differences influenced by socio-economic, cultural, and practical factors. Rural households, closely tied to agricultural activities and traditional practices, exhibit a consistent inclusion of non-vegetarian foods such as fish, chicken, mutton, and wild foods like crabs and snails. These foods are not only a dietary staple but also intertwined with cultural and religious observances. Economic constraints and the availability of fresh, locally sourced seafood and meats make these options accessible and integral to rural diets. In contrast, urban households demonstrate a more varied approach, with*

*a very slowly growing inclination towards vegetarianism driven by health beliefs, convenience, and modern lifestyle demands. Urban families, while still consuming non-vegetarian food regularly, often source it from markets and specialized vendors, reflecting a preference for convenience and perceived quality. The divergence in consumption patterns highlights the complex interplay of tradition, economic factors, and evolving dietary preferences, with urban areas showing a significant trend towards convenience and health-conscious choices, while rural areas maintain a strong adherence to traditional non-vegetarian practices despite modern challenges.*

## **3.6 Outside food consumption**

### **3.6.1 Rural households**

Consumption of outside food in rural households varies widely across different socio-economic strata, reflecting a combination of economic constraints, traditional values, and health concerns. Across all households, there is a general preference for home-cooked meals, with outside food being consumed occasionally and often out of necessity rather than choice.

Upper class households maintain the strictest adherence to homemade food, rarely consuming outside food. Their behaviour is influenced by health concerns and a strong adherence to traditional values. Even during travel or medical visits, they prefer to carry homemade food, with only rare instances of eating outside, primarily for snacks rather than full meals. These households exhibit the least flexibility towards outside food consumption, driven by their ability to afford and prioritize health and traditional eating habits. There was no indication of responses or observations from upper-class families regarding ritual pollution. However, contrary to the expected influence of ritual pollution, the minimal consumption of outside food among upper class households highlights their commitment to maintaining dietary practices centred around homemade meals, prioritizing quality and health over convenience.

Middle class households exhibit a more balanced approach, combining a preference for homemade meals with occasional indulgence in outside food. While there is a strong preference for preparing meals at home, especially for school-going children, there are instances where hotel food is consumed, primarily driven by specific family requests or during travels. This class demonstrates a greater willingness to purchase outside food occasionally, though the emphasis remains on home-cooked meals. Additionally, these households often engage in community sharing of homemade snacks, reinforcing their preference for traditional food practices over hotel food. Middle class households navigate a middle path, where convenience occasionally meets tradition, allowing for a bit more flexibility in their food consumption habits.

Lower middle class and lower class households show a pragmatic approach towards outside food consumption, driven primarily by necessity. These families tend to consume outside food only

when unavoidable, such as during illnesses or when there are no leftovers. Workplaces often provide meals, which are usually homemade or simple hotel food items like idli or dosa. Financial constraints significantly influence their behaviour, leading to occasional purchases of snacks for children rather than regular meals from hotels. Lower middle class households, while valuing traditional home-cooked meals, often find themselves resorting to outside food due to situational demands and economic limitations. Lower class households often buy idli from a vendor and serve it to the children, as parents consume the food made the previous night, or they go for wage work early in the morning, where they get breakfast. Additionally, sometimes the children request their father to bring chicken fried rice, noodles, or parotta in the evenings. So, the men who go to wage work in nearby towns or villages sometimes bring outside food, but these items are typically only for the children due to financial constraints.

### **3.6.2 Urban Households**

Urban households across different socio-economic strata exhibit distinct patterns in their consumption of outside food, influenced by convenience, health considerations, and cultural attitudes. In upper class households, there is a marked preference for homemade food, with restaurant food being an occasional indulgence, often driven by unavoidable circumstances such as illness or travel. This group tends to avoid online food ordering entirely, with parents emphasizing health concerns, particularly the negative impacts of ingredients like Maida and Ajinomoto found in restaurant food. When outside food is consumed, it is primarily restricted to items perceived as healthier or from small, local eateries that mimic homemade cooking standards. Despite the financial capability to order food frequently, upper class households prioritize homemade meals for their perceived health benefits and the maintenance of traditional food practices.

In contrast, middle class households show a more balanced approach towards outside food consumption. While they still prefer homemade meals and avoid frequent consumption of restaurant food, there is a greater acceptance of purchasing outside food, particularly for specific occasions or when family members express a desire for certain dishes. These households often prepare convenience foods like noodles and pasta at home, reflecting a blend of traditional cooking with modern convenience. The consumption of outside food in these households is typically infrequent and situational, often limited to instances of illness, workload, or specific family requests. Additionally, while some middle class families avoid online food ordering, others occasionally use online food delivery services for specific items such as pizza or biryani, reflecting a cautious but practical adoption of modern food delivery services.

Lower middle class and lower class households in urban areas generally exhibit the most constrained consumption of outside food, driven primarily by economic factors and the need for cost-effective meal solutions. These households often emphasize the cost savings and quality control of homemade food over hotel food. Family members, particularly younger ones who



commute to work or school, may eat breakfast or lunch outside due to practical constraints. However, there is a strong preference to prepare meals at home whenever possible. When outside food is consumed, it is typically due to necessity rather than choice, and families often opt for simple, cost-effective options like idli or dosa. The perception of restaurant food as unhealthy and economically unviable reinforces their commitment to homemade meals, even in the face of limited resources and time constraints.

*Across both rural and urban settings, the trend towards preferring homemade food remains strong, underscoring the importance of health, tradition, and economic considerations in food choices. Upper class households, whether rural or urban, prioritize homemade meals to maintain health and adhere to traditional practices. Middle class households show a blend of home-cooked meals with occasional indulgence in outside food, balancing convenience and tradition. Lower middle class and lower class households, driven by financial constraints, view outside food neither as a necessity nor as a choice, emphasizing the importance of cost-effective and quality-controlled homemade food. Irrespective of class, not many households prefer food (Eg. Dosa) from cheap restaurants. These restaurants tend to cater primarily to bachelors and individuals living away from home, who rely more heavily on restaurant meals. In contrast, families eat out less frequently and generally prioritize homemade options. Across all households, the younger generation often prefers to consume outside food with their friends. This comprehensive analysis highlights the nuanced behaviours in outside food consumption across different socio-economic groups, reflecting broader socio-economic dynamics and cultural values.*

## **5. Main Aspects of Food Transformation into The Domestic Kitchen and Modalities of Family Food Consumption**

This chapter explores the dynamic landscape of food transformation and consumption within the domestic kitchen, focusing on the evolving practices influenced by socio-cultural and economic factors. It examines the introduction of new food products and recipes through various dissemination channels, the integral role of women in food processing, and the pride they take in their culinary expertise. Additionally, it addresses the growing concern over the quality and safety of food, contrasting home-prepared meals with the increasing disrepute of restaurant food especially among middle aged and older individuals. The chapter delves into the gendered division of labour in food-related tasks, highlighting differences among socio-economic classes and castes, and the impact on time management in household food practices. By analyzing these aspects, we gain insights into the complex interplay of tradition, innovation, and socio-economic pressures shaping family food consumption.

### **4.1 Introduction of New Products or Recipes (Food Innovation)**

The landscape of food consumption and culinary practices within domestic kitchens has undergone significant transformation in recent years, influenced by various socio-economic and cultural factors. One of the most notable aspects of this transformation is the introduction of new products and recipes, often facilitated by digital platforms like YouTube and social media such as Facebook and Instagram. This section examines how different households, both in rural and urban settings, adopt and adapt to these culinary innovations, highlighting the role of technology in disseminating new recipes, the pressure from younger family members for "junk food," and their apparent disinterest in traditional foods.

#### **4.1.1 Rural Households**

In rural areas, the adoption of new culinary practices varies significantly across different socio-economic strata. Among lower-class households, there is a general reluctance to try new dishes due to limited financial resources and health concerns. Many women do not engage with new recipes or technology, preferring to stick with traditional cooking methods. Women in these households are often involved in other economic activities such as farm wage work or livestock management, which makes it challenging even to cook familiar dishes, let alone try new recipes. However, some exceptions exist where individuals, particularly younger family members either their son or daughter, experiment with new recipes, often inspired by YouTube videos. For example, one respondent mentioned that her son tries new non-vegetarian dishes at home, while another mentioned successfully making biryani after watching a YouTube tutorial.

In lower middle-class households, there is a slight increase in experimentation with new dishes, particularly among younger family members. A common trend is the preparation of simple snacks like bajji (banana fritters) and pakoda (cauliflower fritters) by watching YouTube videos, often when children return home from school or on holidays. Despite this, many women in this group also often involved in farm work, still prefer traditional recipes due to lack of time, lack of interest in new dishes, and concerns about health impacts.

Middle-class households in rural areas show a more pronounced engagement with new recipes. Some individuals, particularly men in a few households, take an active role in cooking and experimenting with new dishes whenever they find time. One respondent mentioned making cakes and biscuits using wheat flour, while another shared experiences of preparing vegetable omelettes, biryani, and various snacks. The influence of social media is evident, with a woman posting her culinary creations on platforms like WhatsApp and Instagram, thereby inspiring others in their community.

Upper-class rural households, however, remain largely resistant to culinary innovation. Traditional values and practices dominate, with very few instances of new recipe adoption. One respondent mentioned that new recipes are more commonly cooked in towns rather than villages, indicating a socio-cultural divide even within rural settings. Other women in these households admitted that when they want to eat something new, they ask their spouse to buy something from a bakery or restaurant.

#### **4.1.2 Urban Households**

Urban households, regardless of their socio-economic status, show a greater propensity for culinary innovation compared to their rural counterparts. However, the extent and nature of this innovation vary significantly across different classes. Lower-class urban households engage minimally with new recipes. When they do, it is often driven by necessity or specific desires from younger family members. For example, some respondents mentioned their children preparing noodles or attempting to cook parotta by watching YouTube videos. These instances are sporadic and often limited to simple, low-cost dishes.

In lower middle-class urban households, there is a noticeable interest in experimenting with new recipes, primarily driven by younger family members. Despite health concerns, these households occasionally indulge in preparing fast food items like noodles, macaroni, and chicken rice, inspired by online sources. The success of these attempts varies, with some respondents expressing disappointment when their homemade versions did not match the taste of restaurant dishes.

Middle-class urban households show a balanced approach towards new recipes. While traditional meals are still predominant, there is a significant influence of digital platforms like YouTube on their culinary practices. Many women in this group actively learn and try new recipes, ranging

from biryani to various gravies and cakes. Additionally, some respondents mentioned incorporating these new dishes into their regular meal rotation, reflecting a blend of traditional and modern culinary practices.

Upper-class urban households exhibit the highest level of engagement with new recipes and food innovation. They frequently experiment with new dishes, often inspired by their children's requests and facilitated by platforms like YouTube. These households show a diverse range of new recipes, including various chutneys, cutlets, dosas, banana flower 65, and even complex items like pizzas. The younger generation plays a crucial role in driving this culinary innovation, often introducing new recipes and cooking methods to their families. In contrast to urban households, upper-class rural households remain largely resistant to such innovation, with traditional practices dominating and they typically rely on bakery or restaurant purchases.

### 4.1.3 Innovative Dishes and Recipes

Here is a list of some innovative dishes mentioned by respondents, along with their recipes shared by the women.

**Table 20 Few Innovative Dishes and Recipes**

S. No.	Dish name	Ingredients	Recipe
1.	Chicken Fry	Chicken pieces, ginger-garlic paste, turmeric powder, red chilli powder, garam masala, lemon juice, salt, and oil.	Marinate chicken with ginger-garlic paste, turmeric, red chilli powder, garam masala, lemon juice, and salt. Fry in hot oil until golden brown and cooked through.
2.	Banana Flower 65	Banana flower, ginger-garlic paste, chilli powder, garam masala, corn flour, rice flour, salt, and oil.	Clean and chop banana flowers. Marinate with ginger-garlic paste, chilli powder, garam masala, and salt. Coat with a mixture of corn flour and rice flour. Deep fry until crispy.
3.	Vadai with Banana Flowers	Banana flowers, chana dal, onions, green chillis, curry leaves, salt, oil.	Soak chana dal and grind coarsely. Mix with chopped banana flowers, onions, green chillis, and curry leaves. Shape into patties and deep fry until golden brown.
4.	Vegetable Omelette	Eggs, mixed vegetables (onions, tomatoes, bell peppers), salt, pepper, oil.	Beat eggs with salt and pepper. Sauté vegetables in a pan, pour in the egg mixture and cook until set.

5.	Noodles with Vegetables	Instant noodles, mixed vegetables (carrots, beans, cabbage, capsicum), eggs (optional), chilli powder, pepper powder, and salt.	Cook noodles according to package instructions. Sauté vegetables and add to noodles. Season with chilli powder, pepper powder, and salt. Optional: Add scrambled eggs.
6.	Idiyappam (String Hoppers)	Rice flour, salt, hot water, oil.	Mix rice flour with salt and hot water to form a dough. Press through an idiyappam maker and steam until cooked.
7.	Vegetable Biryani with Basmati rice	Basmati rice, mixed vegetables (carrots, beans, peas, potatoes), onions, tomatoes, ginger-garlic paste, biryani masala, yogurt, mint leaves, coriander leaves, ghee, oil, and salt.	Sauté onions and ginger-garlic paste in ghee and oil. Add chopped vegetables and biryani masala and cook until tender. Add yogurt, mint, and coriander leaves. Mix with partially cooked basmati rice and cook on low heat until done.

*Source:* List prepared based on household interviews conducted for this study

This table illustrates the culinary creativity that is becoming increasingly prevalent in both rural and urban households. While not all the dishes mentioned by the women are innovative by broader standards, they represent new introductions into the rural and urban kitchens of this region, diverging from the traditional culinary practices commonly observed. The introduction of such dishes, particularly facilitated by digital platforms, reflects a blending of traditional and modern influences in contemporary kitchens.

Irrespective of rural or urban, and class, the younger generation frequently requests their mothers to prepare new and diverse dishes. This request poses a significant challenge for lower-income families, where women are often engaged in additional income-generating activities in both rural and urban settings. In contrast, women in financially better-off families, with better access to modern kitchen resources and ample free time, tend to experiment more with new recipes. These women, inspired by digital platforms like YouTube, are more inclined to try new recipes and serve them to their children, effectively blending traditional and modern culinary practices.

While many women admitted to having prepared a variety of innovative dishes by watching TV and YouTube in the past, they often do not remember the names or continue to make those dishes regularly. This indicates that while new dishes are occasionally tried, they are not always retained or integrated into the regular meal rotation. The sporadic nature of culinary innovation in many households suggests that the introduction of new dishes is more experimental than habitual. The integration of new recipes into daily cooking routines remains a selective process, influenced by factors such as time, resources, and sustained interest. This trend highlights the

dynamic nature of domestic cooking and the evolving tastes and preferences within households, marking a gradual but noticeable shift from traditional to more diverse culinary practices.

## **4.2 Food Transformation in Rural and Urban Households**

Food transformation plays a critical role in rural and urban households, especially among women who manage these processes with immense pride and skill. This section explores how women in different socio-economic classes and settings transform basic agricultural products into essential food items like oil, flour, spices, and pickles. It delves into their expertise in these areas and their apprehensions about semi-industrial products.

### **4.2.1 Rural Households**

In rural households, food transformation is a deeply ingrained practice that blends economic necessity, cultural traditions, and a profound sense of self-sufficiency and satisfaction among women. The primary products transformed at home include oils (such as sesame and groundnut), grains and flour (like ragi and cumbu), spices (like chilli powder and sambar powder), and pickles. The extent and methods of these transformations, however, vary significantly across socio-economic classes.

#### ***Oil Production***

In rural households, the production of groundnut and sesame oils is a deeply rooted tradition, reflecting both economic necessity and cultural practices. Rural women often utilize groundnuts and sesame seeds harvested from their farms or purchased locally to produce oil at home. The process involves sun-drying the seeds, roasting them, and then pressing them in mills to extract the oil. Upper-class rural households, with their capacity to cultivate a variety of crops, typically produce substantial quantities of groundnut and sesame oils, occasionally supplementing these with coconut oil. These families can meet most of their annual oil needs through home production. Middle-class families, benefiting from better access to resources and raw materials, also engage in the regular production of groundnut and sesame oils. They often manage to produce enough oil to last for a significant portion of the year, thereby reducing their reliance on commercially available oils.

Lower middle-class households follow similar practices, but the quantities of oil they produce are generally smaller, reflecting their more limited financial means and variable access to raw materials. These families supplement their homemade oils with purchases from local shops more frequently than their middle-class counterparts. In lower-class rural households, the production of groundnut and sesame oils is less prevalent. Financial constraints and the demanding work schedules of the women in these households limit their ability to process these oils at home.

Consequently, these families often rely on small packets of sunflower refined oil from the local shops, and palm oil, which they purchase at PDS centres at subsidized prices.

### ***Grain and Flour Preparation***

In rural households, grains like ragi and cumbu are sun-dried and milled to produce flour, ensuring a fresh and unadulterated supply essential for daily meals. Upper-class households, which cultivate grains such as cumbu and ragi, utilize mechanical mills to process these grains on a regular basis, usually monthly or bi-monthly, thereby maintaining a consistent flour supply throughout the year. Middle-class households also adopt similar practices, adjusting their milling frequency based on their consumption patterns of millet. In contrast, lower middle class and lower-class households have limited access to grains like ragi and cumbu. These households often rely on other farmers from whom they receive millets as compensation for farm work, particularly during the harvest season. Consequently, they receive only small quantities of these grains and cannot afford to buy more from shops. Therefore, they often rely on traditional methods, such as manually pounding and sieving grains at home. This approach places the responsibility of processing small quantities of flour on the women of these families, who ensure the continuity of this essential food preparation practice despite resource constraints.

### ***Spice Preparation***

Chilli powder is an essential homemade spice product in rural households. Families purchase dried chillies, coriander seeds, and other ingredients and milling them locally to ensure a fresh and unadulterated supply. The process is labour-intensive, involving the cleaning and sun-drying of chillies before milling them at local rice mills. Upper class families, with the resources to ensure meticulous quality control, prepare a variety of spice mixes, such as raw chilli powder and sambar chilli powder (a mix of chilli and coriander seeds), using traditional methods to avoid additives found in commercial products. These families produce spices in larger batches, which last three to four months, ensuring consistent quality. Some families also prepare idli podi in small quantities, sufficient for several weeks.

Middle-class households frequently produce these spices at home as well. In contrast, lower middle class and lower-class families also prepare spice mixes, but not as consistently. Particularly, very few lower-class households prepare spices at home due to the need for a substantial initial investment to purchase ingredients in bulk and mill them. Consequently, most lower middle-class and lower-class households buy small quantities of commercially processed spice powders from local shops according to their daily or weekly requirements.

### ***Preservative (Pickle) Making***

Preservatives such as pickles, vadagam, and vathal are typical homemade products in rural households. Upper-class families pride themselves on producing a wide variety of pickles, such

as mango, lemon, and citron, and preserved items like vadagam and vathal, often using their own farm-grown ingredients. They turn to store-bought pickles only when homemade supplies run out. The process involves cleaning, cutting, salting, and sun-drying the fruits before storing them with spices and oil. These households can purchase the raw materials once a year during the respective seasons, making pickles or vadagam that last for the entire year. The type of pickle each household makes depends on the preferences of family members.

Middle-class families follow similar practices, producing a wide range of pickles to ensure they have enough to last through the year. Lower middle-class households also prepare pickles, but not all households do so. Even among those who make pickles, the quantities are smaller due to financial constraints, and the pickles do not last for an entire year. Similarly, very few lower-class families prepare pickles and vadagam. The preparation of these preserved products requires bulk purchases of ingredients, which necessitate more money at the time, posing a challenge for lower-income families. Consequently, most of these households buy pickles in small packets from local shops whenever they wish to consume them.

#### **4.2.2 Urban Households**

Urban households, influenced by dynamics such as space constraints and lifestyle differences, exhibit varied practices in food transformation. Nonetheless, the preference for homemade products remains strong due to concerns about quality and health. As a result, many urban households process products like oils, flours, masalas, and pickles at home. While not every urban household engages in food processing, those with higher health concerns, and more access to market resources often produce a wider variety of products than their rural counterparts. This commitment to homemade products underscores the value of culinary tradition and the assurance of healthier, more personalised food options.

##### ***Oil Production***

Oil is the most common homemade product among urban households, with different types of oil used for specific dishes based on their flavours and cooking properties. Refined oil is commonly used for general cooking and frying due to its availability and neutral taste. Sesame oil is favoured for dishes like sambar and pickles for its distinctive flavour. Appreciated for its rich taste, groundnut oil is used for traditional dishes and deep frying. Palm oil, while less popular due to health concerns, is still used in some households for its affordability. Each oil type is selected to enhance the flavour and texture of particular dishes. Upper-class households are more likely to make their own oils, such as sesame, groundnut, and coconut oil, ensuring purity and quality. Few households source raw materials from rural areas to ensure the highest quality; those who don't have rural contacts buy them in local markets. They purchase raw materials in bulk and process them in mills, avoiding the uncertainties of store-bought oils. They also use a



variety of oils for different cooking purposes, showing a higher degree of culinary sophistication and health awareness.

Middle-class families tend to use a mix of refined oil and sesame oil, often purchased from local shops. Some middle class households prepare sesame oil and groundnut oil during specific seasons of the year. Some households have relatives in rural areas from whom they source groundnuts and sesame, making their oils to ensure purity. However, some of them purchase sesame oil, groundnut oil, and refined oils from trusted sources like local oil mills in nearby villages, or in local supermarkets and stores. These households are more health-conscious and prefer homemade oils when feasible, despite the extra effort required. Lower middle-class households often purchase refined oils such as sunflower oil from local shops. Though they recognize the health risks associated with palm oil and refined oils, they lack the means to switch entirely to more expensive oils like sesame or groundnut. Occasionally, they prepare these oils when they have access to sesame and groundnut but generally do not produce other oils at home. Lower-class urban households primarily rely on refined and palm oil for cooking, avoiding more expensive options like groundnut oil and sesame oil. They do not attempt to produce oil at home due to financial constraints and lack of resources. The preference for refined and palm oil is driven by their affordability, despite health concerns associated with palm oils. Occasionally, a few households make small quantities of oil when they can source raw materials from rural connections.

### ***Grain and Flour Preparation***

Urban households engage in processing various grains into flour, integrating these practices into their daily cooking routines. This practice ranges from traditional millet-based flours to the incorporation of modern, innovative products introduced into urban culinary culture. Typically, grains are purchased from local markets and processed either at home or in nearby mills to meet specific needs. In upper-class households, there is a strong emphasis on controlling the quality and health benefits of grains and flour. These households often purchase grains in bulk from trusted sources and prepare a variety of flours at home using their own mixer grinder or local mills. Commonly prepared flours include rice flour, wheat flour, ragi flour, corn flour, and multigrain mix flour (Nutrimix). Despite the convenience of ready-made options, many upper-class families prefer homemade flour to ensure freshness and customization according to family preferences. This process often involves a combination of traditional methods and modern tools, reflecting their commitment to maintaining high standards in food preparation.

Middle-class households similarly prioritize homemade grain and flour preparation but rely more on ready-made flour from local supermarkets and specialized shops when homemade preparation is not feasible. They frequently prepare flours such as wheat flour and ragi flour at home using locally sourced grains, balancing between homemade and store-bought options depending on convenience and availability. Lower-middle-class families engage in homemade grain and flour

preparation based on seasonal availability and economic factors. The frequency of preparation varies, influenced by economic constraints and access to resources. Ready-made flour from local markets serves as an alternative when homemade preparation is not viable, balancing affordability and nutritional concerns.

Lower-class households often face challenges in grain and flour preparation due to economic limitations and time constraints. They primarily purchase flour such as wheat or rice flour from local shops, relying on ready-made products for daily cooking needs. Homemade preparation of flour is minimal, reflecting practical considerations rather than preferences for quality or health benefits. Economic factors dictate their reliance on commercially available options for grain-based products.

### ***Idli/Dosa Batter Preparation***

Batter preparation is an integral part of urban households, varying significantly across socioeconomic classes. In upper-class households, meticulous attention is given to the preparation of idli, dosa, and idiyappam batter. Here, the emphasis lies on using premium quality idli rice and adhering to traditional methods passed down through generations. Wet grinders, often considered essential equipment, ensure the batter achieves the desired consistency and texture. While some families occasionally purchase batter from trusted sources, the preference leans heavily towards homemade preparations to maintain exceptional taste and quality.

Middle-class families also prioritize homemade batter, frequently utilizing wet grinders at home and precise techniques for idli and dosa preparation. They strike a balance between convenience and quality, occasionally supplementing their homemade batter with store-bought options during busy periods. These households value the satisfaction of preparing their own batter, knowing it guarantees freshness and meets their specific taste preferences. Lower-middle-class households engage similarly in homemade batter production but with limited access to resources. This demographic demonstrates a conscientious effort in ensuring their homemade batter maintains superior taste and nutritional value, occasionally resorting to purchasing pre-made alternatives only in urgent situations.

Conversely, lower-class households navigate flour and batter preparation with a steadfast commitment to homemade practices out of necessity rather than choice. Basic ingredients are used to make idli and dosa batter, with little reliance on commercial alternatives due to cost constraints. This segment of society values the freshness and cost-effectiveness of homemade preparations, viewing it not just as a culinary necessity but also as a cherished tradition that binds families together over shared meals.

### ***Spice Preparation***

Spice powders and masalas are integral components of domestic kitchens, enhancing dishes with their distinct flavours and aromatic profiles. While spice preparation remains a common thread across urban households, the methods and motivations behind their production vary significantly among different socio-economic groups, influenced by factors such as affordability, quality standards, and culinary traditions. In upper-class households, there is a strong inclination towards homemade spice powders and masalas. These families prioritize purity and flavor, often preparing chili powder, sambar powder, and elaborate mixes like garam masala, curry leaf powder, idli podi, and various rice mixes such as lemon mix, tamarind mix, and keerai mixes from scratch. They meticulously select high-quality ingredients, sometimes sourced directly from trusted suppliers or rural connections known for their superior produce. The process of spice preparation is considered an art form, with methods passed down through generations and executed with precision. They avoid store-bought powders due to concerns over cleanliness and potential health risks, opting instead for the familiarity and assurance of homemade preparations. Upper-class families invest time and effort into grinding spices to perfection, ensuring each blend complements their culinary creations with exceptional taste and health benefits.

In contrast, middle-class households adopt a balanced approach to spice preparation. While they also value homemade masalas for their superior taste and health advantages, they occasionally supplement with store-bought varieties for convenience, especially for specific non-vegetarian dishes or less frequently used spice blends. Using modern electric grinders, they efficiently produce smaller batches of spice powders like chilli powder, pepper podi, sambar podi, and rasam podi. This approach reflects a blend of traditional methods and contemporary convenience, catering to both taste preferences and busy lifestyles. Lower-middle-class and lower-class households predominantly rely on store-bought spice powders out of necessity and convenience, although there exists a preference for quality. Few families prepare essentials like chilli powder and idli podi using ingredients procured in bulk from local markets or through rural connections, ensuring affordability without compromising on flavour. This practice not only serves practical purposes but also underscores their resourcefulness in maintaining culinary traditions within their means.

### ***Pickle Making***

Pickles and preserves are special in culinary traditions across different urban households. These homemade delicacies not only enhance the taste of meals but also serve to preserve seasonal abundance and ensure variety in daily fare. Among upper-class and middle-class households, pickle-making is considered an art form. They take pride in preparing pickles using diverse ingredients and techniques, including sun-dried items like vathal. Using meticulously selected high-quality ingredients and adhering to traditional recipes passed down through generations, they prepare a wide array of pickles like lemon, mango, citron, and garlic. The process reflects their commitment to culinary excellence, resulting in pickles that are often considered superior to commercially available options. For them, homemade pickles offer not only control over

ingredients and avoidance of artificial additives but also a communal aspect of food sharing. Often, these households extend their homemade pickles to relatives and friends, fostering a sense of connection through food.

In contrast, lower-middle-class and lower-class households engage in pickle making more sporadically, typically during seasons when mango, lemon, and citron are plentiful and affordable. They appreciate homemade pickles for their authentic taste and absence of preservatives, although time and financial constraints sometimes limit their production. Despite these challenges, homemade pickles remain a cherished part of their culinary practices, allowing them to savour seasonal flavour and reduce food wastage. Many households in these groups do not consume pickles regularly, citing reasons such as personal preferences and economic constraints. Occasionally, they purchase pickles from consumer stores when they desire a different flavour experience.

#### **4.2.3 Comparison of Food Transformation Practices in Rural and Urban Households**

In both rural and urban households, food transformation practices are significantly influenced by economic factors and cultural values, with financial status dictating the scale and variety of homemade products. Despite differences in living environments, both rural and urban families strongly emphasize homemade foods due to concerns about the quality and health impacts of semi-industrial items. Women in these households take immense pride in their ability to produce essential food items, viewing these skills as crucial aspects of household management and cultural heritage. The tradition of home transformation persists, highlighting a collective effort to maintain quality, purity, and a connection to cultural roots.

However, the specific practices and motivations behind food transformation differ notably between rural and urban settings. Rural households often rely on their agricultural outputs for raw materials, ensuring high self-sufficiency. Lower-income rural households focus on essential items like chilli powder and small quantities of oil, supplementing homemade supplies with store-bought products when necessary. As financial stability increases, rural households can afford to produce larger quantities and a greater variety of homemade foods, including a diverse range of oils, flours, and spice powders. Similarly, urban households emphasize control over quality and health benefits, often preparing a wide variety of products using both traditional and modern methods. Upper class and middle-class urban households balance homemade and store-bought options based on convenience, while lower-middle-class and lower-class families primarily purchase ready-made products due to economic constraints and a lack of resources.

The gendered nature of food production is evident in both settings, with women predominantly engaged in the labour-intensive stages of food preparation. In rural areas, men typically handle the purchase of raw materials and the transportation of processed goods to mills for grinding.

This division of labour sustains household self-sufficiency and preserves cultural practices. In urban settings, while women continue to dominate food preparation, the involvement of men varies depending on conveniences and other responsibilities, men are often involved in sourcing raw materials from local markets and assisting with heavier tasks. This traditional division of labor not only maintains culinary traditions but also highlights the adaptability of both rural and urban communities in managing their food resources. Despite differing circumstances, the commitment to homemade food products remains a unifying theme, emphasizing a shared dedication to quality, purity, and cultural heritage.

The gendered nature of food production is evident in both settings, with women predominantly engaged in the labour-intensive stages of food preparation such as cleaning, drying and pre-preparing the ingredients for processing. In rural areas, men typically handle the purchase of raw materials and the transportation of processed goods to mills for grinding. This division of labour sustains household self-sufficiency and preserves cultural practices. In urban settings, while women continue to dominate food preparation, the involvement of men varies depending on conveniences and other responsibilities, with men often involved in sourcing raw materials from local markets and assisting with heavier tasks. This traditional division of labour not only maintains culinary traditions but also highlights the adaptability of both rural and urban communities in managing their food resources. Despite differing circumstances, the commitment to homemade food products remains a unifying theme, emphasizing a shared dedication to quality, purity, and cultural heritage.

### **4.3 Worktime Management of Women in Rural and Urban Households**

The work-time management of women in rural and urban households reveals a complex interplay of household duties, income-generating activities, and socio-economic status. Women's responsibilities across these settings vary widely, reflecting the diverse economic conditions and cultural expectations that shape their daily lives. This discussion examines the intricate balance that women maintain in managing their time and roles within their households and communities, highlighting the differences and similarities between rural and urban contexts. By analyzing the specific tasks, socio-economic class differences, and the overall impact on personal well-being, we gain a comprehensive understanding of the multifaceted nature of women's work-time management in both rural and urban environments.

#### **4.3.1 Rural Households**

In rural households, the responsibilities of women encompass a broad range of activities integral to the daily functioning of their households and communities. Rural women wake up early, typically around 5 am, and start their daily routine. These tasks typically include food preparation, other household chores, and various types of farm work. Food preparation is a significant part of their daily routine, from procuring ingredients to cooking meals for the family,

often assisted by the men in purchasing groceries from the shops. Cooking skills are primarily passed down from mothers and in-laws. However, some women have adapted to modern cooking practices and recipes through TV and YouTube, although traditional methods remain predominant. LPG is more commonly used in rural households, reducing cooking time compared to those relying solely on firewood. However, some households with lesser financial resources still use firewood as the primary source of energy to conserve LPG. In addition, women are responsible for maintaining the household, which includes cleaning, laundry, and often child-rearing. Their role extends beyond the confines of the home as they actively participate in agricultural activities, ranging from planting and harvesting crops to tending livestock. In households with small businesses or shops, women also contribute by managing or assisting in these ventures. These duties are essential for the sustenance and economic stability of their families.

There are noticeable differences when considering the roles of rural women across different socio-economic classes. Upper-class women in rural areas are primarily engaged in household management, which includes food preparation and other household responsibilities. These women spend around 3 hours a day on cooking-related activities, ensuring the preparation of two to three meals per day depending on the preference, work routine, and mealtime of family members. LPG is the primary cooking fuel, with minimal use of firewood, contributing to a significant reduction in the time and effort required for cooking. They often oversee their family's small businesses or supervise the work of farm labourers on their farm, ensuring that farm duties are performed efficiently. There is more flexibility in balancing household duties with any external work, partly due to better financial resources allowing for hired help. Their involvement in direct, labour-intensive tasks is minimal compared to women of other classes, allowing them more time to focus on primary household responsibilities.

In middle class households, there is a noticeable shift towards more efficient management of time and a more balanced division of labour. Women generally spend around 2 to 3 hours a day cooking, benefiting from the use of LPG and modern kitchen appliances that contribute to this efficiency. Cooking is often more varied and includes at least two meals prepared daily, as most households prepare both breakfast and lunch together in the morning, citing reasons such as preparing lunch for school-going children. Besides managing household chores, women also have additional responsibilities like managing a family business or farm. The presence of a shop or small business can lead to a more rigid structure in daily routines, where time for cooking is squeezed between business hours. Men and other family members, such as husbands, mothers-in-law, or daughters, often assist with cooking and household chores, significantly reducing the workload on women. Decision-making about meals is more collaborative, with input from various family members considered. These women often cook extra meals for the farm labourers during the agricultural season when more labourers work on their farms. The adoption of new recipes and cooking techniques from various sources, including the internet, is more common, reflecting higher information-seeking and access to resources. The ability to hire help or use

modern appliances allows for a better balance between household duties and external work, ensuring that both cooking and other responsibilities are managed well.

In lower-middle-class households, the pattern of worktime management and division of labor shows some improvements compared to lower-class households, but women still bear the primary responsibility for cooking and household chores. Women in lower middle-class households also manage cooking primarily on their own, but the time spent on cooking tends to be slightly less, averaging around 2 to 2.5 hours a day. Meal preparation is structured similarly to middle-class households, with breakfast and lunch often cooked together in the morning and dinner prepared in the evening. Men and children sometimes assist with minor tasks like cutting vegetables or collecting water, but women remain the primary cooks. Some households report more collaborative decision-making regarding what meals to prepare, although the final call is still primarily taken by women. Besides cooking, women handle cleaning, washing clothes, and other household chores. Farm work continues to be a significant part of women's responsibilities as the majority of women often work as farm laborers in the local farms and farms in the neighboring villages. During peak agricultural season, women even prefer farm work over household chores to attain more income for their families by making alternate arrangements for the meals of family members such as buying food from restaurants or cooking food at night and serving the same food for breakfast the next day.

In lower-class rural households, women typically shoulder the bulk of household and cooking responsibilities, often with little to no assistance from other family members. The time women spend on cooking varies depending on various factors, but it generally takes a significant portion of their day. Women often cook alone, spending up to 2 hours daily on meal preparation depending on the other household chores and wage work schedule. Mealtimes are structured around the daily routines of the family members, with breakfast and lunch often prepared together in the morning and dinner prepared in the evening. Some households mentioned that they prepare extra food at night, eat the same food for breakfast the next day, and leave for farm work early in the morning. If there are children in these families, they buy idli from a local vendor and even parcel them to their schools for lunch. In this case, women leave for work at 8 A.M. and finish by 1 P.M. After that, they return home and cook lunch, some also cook food for dinner at the same time. Some women are often involved in livestock rearing in the afternoon after completing the farm work. So, in most of these households, they prefer to cook two times a day due to resource constraints as well as time limitations.

Generally, in lower-class households, men's involvement in cooking is minimal as the majority of men are involved in farm and non-farm wage labour; some even migrate to wage work in other districts and states. In a few cases, husbands help with tasks like cutting vegetables or cooking in the woman's absence due to illness. Sons and daughters occasionally assist with minor tasks like vegetable cutting, but the primary responsibility remains with the women. Besides cooking, women manage a range of other household tasks such as cleaning, collecting

water, and caring for livestock. These tasks are often completed early in the morning before heading to the farms for agricultural work. Women in lower-class households frequently work as farm labourers, which adds to their workload. They typically balance farm work with household duties by starting their day very early and multitasking. Cooking skills are primarily passed down from mothers and in-laws. Many lower-class households use firewood for cooking, which is more time-consuming compared to using LPG cylinders. Some women switch between firewood and LPG based on availability, workload, and season. The necessity to work on farms significantly influences the time women can dedicate to cooking. On days when farm work is demanding, meal preparation time is minimized, often leading to simpler meals.

*Overall, while the specific tasks and the extent of labour vary among different social classes, rural women universally play a critical role in maintaining their households and supporting agricultural production. The degree of physical labour and the nature of their involvement in these activities are significantly influenced by their socio-economic status, highlighting the disparities in their daily lives and responsibilities. Lower-class and lower-middle-class women bear a heavy burden of household and farm work, with minimal financial resources, support, and reliance on time-consuming cooking methods like firewood. Lower middle class women experience some improvements in time management and support but still carry the primary responsibility for household duties. Middle class and upper class women benefit from better economic conditions, allowing for more efficient time management, greater support from family members, and the use of modern conveniences like LPG and kitchen appliances. Overall, economic status significantly influences the division of labour and the efficiency of worktime management in rural households.*

#### **4.3.2 Urban Households**

In urban settings, the daily lives of women are marked by a meticulous balancing of multiple responsibilities. A clear pattern of work-time management emerges among urban women, particularly when considering their roles within the household and the workplace. Urban women often wake up early, typically before 6 AM, to prepare meals and ready their children for school. This early start is crucial as it allows them to handle household chores and ensure their families are set for the day. When there are school-going children and office-going men in the family, they must prepare both breakfast and lunch before everyone leaves home in the morning. Simultaneously, they also complete other household responsibilities.

In addition to household responsibilities, urban women allocate significant time to income-generating activities. After the morning routine, many urban women transition to their professional roles, commuting to their places of employment. The time spent in professional settings varies widely, but on average, urban women dedicate approximately 6 to 8 hours to their jobs, depending on whether they are running their own businesses or employed by other firms. After their professional commitments, they return home to engage in evening household



activities, which include cooking, cleaning, and assisting children with their homework. Despite the long hours dedicated to both paid and unpaid work, urban women strive to carve out time for personal activities, although this often comes at the expense of leisure and rest.

The socio-economic class differences reveal stark contrasts in the daily lives and work-time management of urban women across various economic strata. In upper-class households, women often spend a significant amount of their time on cooking and other household responsibilities. This substantial time investment is likely due to higher living standards and greater expectations for home maintenance. Some of these women are additionally involved in the business activities of their families, either full-time or part-time. Despite their busy schedules, they manage to allocate sufficient time for leisure and personal care, indicating a well-balanced approach to time management. Men in these households generally do not assist with cooking-related activities, though in some families, sons or daughters may be involved in preparing specific dishes of their interest. A few upper-class women have access to hired help for domestic chores, which significantly alleviates their household burdens. This assistance allows these women to focus more on their professional careers, contributing significantly to their household income or engaging in social and recreational activities.

Middle-class women, on the other hand, face a more stringent balancing act. They often juggle professional responsibilities with household chores, without the extensive support of domestic help that some of their upper-class counterparts enjoy. These women also spend a considerable amount of time on income-generating activities, reflecting their significant involvement in the workforce. They often engage in dual roles: managing their households and working full-time jobs. The day of a middle-class urban woman is a continuous cycle of professional duties and household responsibilities, often leading to significant physical and mental fatigue. However, women who do not have external jobs or other responsibilities outside the home admit that they find adequate time to spend on learning and preparing healthy and nutritious food for their family, particularly for their children, and they also find sufficient leisure time. Despite multiple roles and challenges, middle-class women display remarkable resilience, striving to maintain their careers while ensuring their families are well taken care of.

Lower middle class women show a varied time allocation depending on their exact economic standing. Typically, these women spend slightly less time on food preparation activities compared to their higher-income counterparts. Women with moderate expenditures spend a substantial amount of time on household chores, reflecting the demands of maintaining their living standards. However, they still juggle significant household responsibilities with work commitments. These women's days are characterized by long hours of labour, both in and out of the home, with very little rest or leisure. The balance between household chores and personal care is more even, though the pressure of household maintenance remains substantial.

In contrast, women in lower class households with fewer expenditures spend the least amount of time on household chores. The reduced time spent on household tasks is due to fewer resources and simpler household management needs. The economic pressures on these households often necessitate that women contribute significantly to the household income, further exacerbating their workload. Women in these settings often engage in informal employment or low-wage jobs with little job security. Their work hours can be erratic and demanding, leaving minimal time for household chores, which they must still manage without the aid of hired help. The lack of resources and support systems places immense strain on these women, who navigate the dual demands of survival and caregiving under challenging conditions.

*In conclusion, the urban landscape reveals a multifaceted picture of time management and responsibilities for women, strongly shaped by socio-economic status. Women across socio-economic classes shoulder a significant burden of household responsibilities while also contributing to income-generating activities. Interestingly, the time devoted to household chores increases with household income, as women in higher-income families tend to focus primarily on domestic tasks, staying home rather than engaging in external income-generating jobs. Very few of them engage helpers. However, this trend is not absolute, as some women in higher-income households fully or partially participate in family business activities. This suggests that higher living standards and expectations lead to more time being dedicated to household maintenance. While upper-class women manage extensive household chores and work commitments, lower-class women endure the most challenging circumstances, with overwhelming workloads and limited resources. Middle-class women, particularly those in the lower middle class, balance their time between household responsibilities and work, reflecting their moderate living standards and economic pressures. Despite different challenges, urban women maintain a balance between work, leisure, and personal care, although the distribution of time varies by socio-economic status.*

## **6. The Food Supply: The Decline of Self-Consumption and Increased Market Dependency**

This chapter delves into the intricate dynamics of food supply across rural and urban households in the Pondicherry bio-region, spotlighting the transformation from traditional self-sufficiency to contemporary market dependence. In rural areas, families leverage agricultural practices and local connections to sustain food security through own-farm production and periodic market purchases. This contrasts sharply with urban households, where varying economic capacities dictate reliance on rural ties or local markets for food procurement. Gender roles are also pivotal, as men traditionally manage the supply chain while women oversee storage and household management. The chapter explores how these dynamics intersect with socio-economic disparities, influencing access to quality food and household stability in both settings.

### **5.1 Food Supply Dynamics among Rural and Urban Households**

The food supply dynamics in the Pondicherry bio-region highlight significant differences between rural and urban households, shaped by agricultural practices, economic activities, and community ties.

#### **5.1.1 Rural Households**

Rural families in the region often rely on agricultural activities as a primary food source and for their livelihoods. For many rural families, owning farmland is a significant advantage, allowing them to cultivate a variety of food crops such as sesame, groundnut, cumbu, black gram, ragi, and paddy. This self-sufficiency reduces dependency on market purchases, ensures a steady supply of fresh produce, and provides financial savings by eliminating the need to buy certain staples. Additionally, it offers a level of food security that helps these households withstand market fluctuations and price increases.

Rural households typically acquire essential groceries and household necessities through a combination of regular monthly purchases from larger markets and occasional smaller purchases from local shops. Their consumption patterns are significantly influenced by regional agricultural practices, where the use of inorganic fertilizers and pesticides is prevalent due to economic pressures to achieve higher yields. Attempts to cultivate crops organically have been limited due to lower yields and economic losses experienced in the past. Despite concerns over inorganic farming practices, organic products are not widely available or affordable in rural areas, making chemically treated crops a necessity for balancing food security and financial stability.

Most rural families grow staples for household consumption, such as paddy, which they store in gunny bags and process in local rice mills either monthly or bi-monthly depending on the family size. This practice provides better taste and health benefits, though it requires more effort and proper storage facilities at home. Some households prefer to buy processed rice directly from shops due to the absence of proper storage space and the additional workload involved in processing.

Groundnut and sesame are commonly used for oil preparation, while ragi and cumbu are stored in gunny bags and ground into flour as needed. Some households also cultivate vegetables and greens (keerai) in small quantities to meet their family requirements. Other than some local variety of vegetables these households procure vegetables primarily from local vendors, and the weekly market at Kullanchavadi. A few households also grow less common crops such as ragi and black gram exclusively for their consumption. These self-production practices are common among households with significant farmland, particularly those from upper and middle class sections. However, for other food products, these families primarily rely on local shops, weekly markets at Kullanchavadi, and retail outlets at Kullanchavadi and Kurinjipadi. High-income families may even shop at supermarkets in Cuddalore city.

Rural families without farmland often face different challenges in securing their food supply. These households must purchase the majority of their food from retail or wholesale sources. Retail purchases from local shops are convenient but come at higher prices compared to wholesale options. Wholesale purchasing, which involves buying in bulk, offers significant cost savings but requires a larger initial financial outlay and adequate storage facilities. These requirements pose significant challenges for lower-income households, especially those relying on daily wage employment.

However, these households occasionally receive small quantities of food products from the farmers where they work as labourers, particularly during the harvest season of groundnut and cumbu. During these times, they receive produce instead of monetary wages. The recent introduction of mechanized harvesting in groundnut has affected these opportunities. Although some people still find harvest jobs, farmers increasingly prefer to pay wages in money rather than produce, reducing the chances for these households to obtain fresh produce. Despite this shift, a few households with some savings manage to buy bulk produce at affordable prices from local farmers during these periods.

Some households buy a variety of essential grocery items and other household necessities like bathing soap, detergent soap, cleaning powders, and toothpaste monthly. These purchases often leave some items as leftovers, which helps in adjusting the following month's purchases. If any items run out or are missed during the main shopping trip, they are bought from the village's small grocery shop. Many lower-income families buy cooking ingredients from local shops in small quantities, specific to the dish they plan to make on a given day. Only when they have a

bulk of money in hand these households can buy groceries and vegetables for an entire week from the local market. For many rural families, the choice between self-production, retail, and wholesale purchases depends on factors such as land ownership, financial capacity, and storage facilities.

### **5.1.2 Urban Households**

Urban households, in contrast to their rural counterparts, exhibit a more complex and varied approach to securing food supplies. Some urban families with rural ties often rely on connections with their villages to obtain fresh produce, reinforcing their bond with their rural roots. This not only ensures a steady supply of fresh produce but also strengthens familial and communal bonds. Urban families may rely heavily on periodic supplies of foodstuffs sent by relatives such as in-laws, extended families, and friends from the village, including home-grown rice, millets, pulses, and vegetables. These food products from the villages often include other food necessities such as processed oil, masalas, and pickles, bridging the gap between urban and rural life. These products are often preferred over store-bought items due to their perceived higher quality and the emotional value attached to them.

Food supply in these urban households depends on the strength of these familial links. Families with robust connections to their rural counterparts often benefit from a steady flow of agricultural produce and other food items. This reliance on rural sources not only provides economic relief but also ensures a supply of fresh, locally produced food. This symbiotic relationship underscores the interdependence between urban and rural areas, where urban families contribute financially and receive essential goods in return.

Conversely, families without such rural links tend to rely more heavily on retail and wholesale shops in Ariyankuppam and Pondicherry town. The choice between retail and wholesale depends largely on the scale of need and the economic capability of the families. Retail purchases are more common for smaller, immediate needs, while wholesale buying is preferred for bulk requirements, offering cost advantages. This dual approach allows for flexibility in managing household supplies, balancing convenience and economic efficiency. However, this reliance on external markets increases their exposure to market fluctuations and economic pressures, making them more vulnerable to changes in the price and availability of goods, especially perishable products such as fruits and vegetables. These families encounter higher costs and reduced access to fresh, locally sourced food, highlighting a difference in familial connections within the urban community.

*The food supply dynamics in the region illustrate a stark contrast between rural and urban households. Rural families benefit from self-production and local market options, while urban households leverage their rural connections to access fresh, high-quality produce. These*

*differing strategies highlight the importance of land ownership, financial capacity, and familial ties in determining how both rural and urban households secure their food.*

## **5.2 Socio-Economic Disparities in Food Supply Behaviour**

### **5.2.1 Rural Households**

Upper-class rural households exhibit financial stability that allows them to make bulk purchases and be selective in their shopping. They typically buy shiny, fine rice from local shops for its superior cooking quality and convenience, avoiding the labour-intensive process of paddy processing. Nonetheless, a few households continue to adhere to traditional paddy processing methods. Middle-class rural households often strike a balance between self-sufficiency and market dependency. They grow and mill their own rice but also purchase store-bought rice for convenience and assured quality. Lower middle-class rural households sometimes purchase paddy directly from farmers, valuing its taste and health benefits, but they heavily rely on PDS rice for making idli batter. Lower-class households, due to limited storage facilities and financial constraints, prefer buying rice from the PDS while also purchasing better-quality rice from shops. Despite the poor quality and taste, they often use PDS rice for cooking meals at least twice a day because of their economic condition.

When it comes to groceries and vegetables, upper-class rural households benefit from their ability to buy a wide variety of high-quality products in bulk, typically shopping weekly or monthly. Middle-class rural households buy groceries monthly from local shops and utilize both PDS and store-bought products, balancing quality and cost through strategic purchasing. Lower middle-class households buy essential groceries from local stores in smaller quantities and purchase vegetables weekly from local markets. Lower-class households often buy tiny quantities of groceries from local shops due to financial constraints and their reliance on daily wage work. This often leads to higher per-unit costs and limited access to bulk-buying discounts, with local shops serving as their primary source for daily or weekly purchases of vegetables and other essentials.

The Public Distribution System (PDS) plays a crucial role in supporting lower socio-economic classes in rural areas. Upper-class households, while utilizing PDS for some staples, predominantly depend on market purchases. Middle-class households also benefit from PDS, especially for items like rice used for idli batter, as well as red gram, wheat, and sugar. Lower middle-class households heavily rely on PDS for staples like rice, red gram, sugar, and palm oil, supplementing these with purchases from local shops. For lower-class households, the PDS is vital, providing essential staples such as rice, wheat, red gram, sugar, and palm oil. Many lower middle-class and lower-class households have reduced their chapati consumption due to the recent stoppage of wheat distribution through the PDS. It's clear that socio-economic factors and the relevance of the PDS play crucial roles in rural household food security. Despite its

significance, the quality and quantity of PDS supplies often necessitate additional purchases from local shops to meet their needs.

### **5.2.2 Urban Households**

Urban households exhibit significant socio-economic disparities in their food supply practices, particularly in the purchase and use of staples like rice, wheat, millet, and traditional varieties of rice. Upper-class urban households prioritize high-quality rice varieties such as Ponni, Karuppu Kavunia, and Seeraga Samba, often purchasing these in bulk from reputable brands or specific mills to ensure consistent quality throughout the year. Despite having access to paddy cultivated by family members in villages, they prefer the convenience of processed rice, even though they acknowledge the superior quality of traditionally processed paddy. Middle-class urban households also show a preference for specific rice varieties but tend to blend market purchases with periodic supplies from rural relatives. Some continue traditional practices like processing paddy into rice, albeit rarely, highlighting a blend of modern convenience with traditional values. Lower middle class urban households, constrained by budget limitations, frequently purchase broken rice (idichal arisi) for regular consumption. This reflects their need for affordable options and mirrors their rural counterparts' reliance on cost-effective staples. Lower class urban households, facing more severe financial constraints, also purchase broken rice in small quantities, underscoring the affordability factor and their struggle to manage daily food expenses.

The disparity among urban households extends to the purchase of essential groceries, with a clear divide between bulk purchases and smaller, more frequent buying patterns. Upper class urban households exhibit structured and frequent shopping routines, often patronizing well-known stores and purchasing groceries in bulk on a monthly basis. This approach ensures they maintain a steady supply of high-quality essentials without frequent trips to the market. Their financial stability allows for this level of planning and purchasing power. Middle class urban households, while also engaging in bulk purchases, often supplement their supply with produce from rural relatives. This strategy helps them manage costs while ensuring access to fresh, quality groceries. They typically purchase groceries monthly or bi-monthly, blending bulk buying with smaller, strategic purchases based on immediate needs. Lower middle class and lower class urban households, however, are forced to buy groceries in smaller quantities due to budget constraints. They balance between bulk and frequent small-quantity purchases, demonstrating a careful management of limited resources.

The absence of the Public Distribution System (PDS) in Puducherry has varied impacts on households' food security and purchasing behaviours. While some urban households, unaffected by the lack of PDS support, rely solely on market purchases supplemented by occasional rural supplies, others express dissatisfaction as they no longer receive subsidized rice and wheat. A few households appreciate monetary compensation but must now navigate increased expenditures on food items. For lower-income urban families, the cessation of PDS provisions,

even during the COVID-19 pandemic, has intensified reliance on costly market purchases or irregular supplies from rural connections, worsening food insecurity and necessitating prioritization of affordable food procurement strategies.

The socio-economic disparity between urban households in Ariyankuppam is stark, reflecting differences in financial capacity, access to rural resources, and the impact of the non-existent PDS. Upper-class households focus on quality and convenience, leveraging their financial stability to maintain a steady supply of high-quality food items. Middle-class households balance cost and quality through strategic purchasing and rural connections, while lower-middle-class households navigate budget constraints by blending bulk and small-quantity purchases. Lower-class households, facing the most severe financial limitations, prioritize affordability and manage food supplies through frequent small purchases from local shops. The absence of PDS support exacerbates their challenges, highlighting the critical role of socio-economic status in determining food security and access to diverse food options in urban areas.

### **5.3 Daily Struggle for Food Security among Poorest Households**

For the poorest households, whether in rural or urban settings, securing food is a daily challenge marked by uncertainty and higher costs. These families typically purchase food in small quantities due to limited financial resources, which results in higher prices per unit and a lack of access to bulk-purchasing discounts. In rural areas, their daily purchasing habits expose them to fluctuations in food prices and availability, as they lack reserves to cushion against scarcity. Relying heavily on PDS rice, received monthly in quantities of 20 to 40 kg, they supplement this with daily purchases from local shops, managing their expenses carefully around irregular work opportunities. This financial instability necessitates meticulous budgeting for both food and household expenses.

In urban areas, although the situation is somewhat mitigated compared to rural counterparts, the need to buy food daily from local vendors still results in higher costs for smaller quantities. Limited cash flow and inadequate storage facilities exacerbate their vulnerability, leading to frequent financial strain and food insecurity. Dependence on local vendors further inflates food costs and restricts access to diverse food options, often resulting in a monotonous and nutritionally deficient diet. Conversely, wealthier urban families benefit from bulk buying at wholesale markets, which offer better prices and a wider variety of food items.

Overall, the procurement of food products for the poorest families, whether rural or urban, is characterized by smaller, more frequent purchases, higher costs, and heightened vulnerability compared to wealthier households. The absence of bulk purchasing power and the daily struggle to ensure sufficient food underscore the profound economic and social challenges faced by the poorest in securing their daily sustenance.



## 5.4 Gender Roles in Food Supply Management

In both rural and urban households, men often play a key role in managing the supply and procurement of essential food items, but the dynamics and implications of this role can differ significantly between these settings.

In rural households, men typically handle the procurement of essential items such as oil, flour, masala powder, rice, and other essential groceries. This responsibility is largely due to traditional gender roles and societal structures that assign specific tasks within families. Men often purchase these items in bulk to ensure a constant supply, which not only provides better pricing but also reduces the frequency of shopping trips. Proper storage solutions are crucial in rural settings to maintain the quality and longevity of these products, given that access to markets can be limited. The involvement of men in these procurement processes highlights the gender dynamics within rural households. Men manage the purchasing, sometimes accompanied by their spouses, while women take full responsibility for the storage, processing, and preparation of essential items. By the way, men enable women to focus on household processing, meal preparation and other household tasks. This division of labour underscores the interdependence within the household and emphasizes the importance of efficient food supply management in maintaining household stability.

Similarly, in urban settings also men assume responsibility for food supply management. Cultural norms often position men as primary earners and decision-makers, extending their role into procuring essential items. But often these purchases are made by the instruction or request of women. In certain households where women go for jobs outside, they are involved in all kinds of purchases unless it is a bulk purchase like buying rice in bags. Compared to rural counterparts, urban joint involvement of both men and women in the procurement of groceries and vegetables is more common. Urban men benefit from better access to wholesale markets and specialized suppliers, enabling women to carry out purchases alone by ensuring quality goods at competitive prices through bulk purchases. Like rural households, in urban households women also oversee the storage and maintenance of these supplies, leveraging their bargaining power and market mobility to ensure consistent provision of household necessities.

*The role of men and women in food supply management across rural and urban contexts underscores enduring gender norms and their adaptation to local conditions. While rural settings emphasize maintaining a reliable supply amidst limited resources, urban environments focus on optimizing access and quality through market advantages. This comparison reveals how traditional gender roles persist while responding to distinct challenges and opportunities in different settings. Ultimately, efficient food procurement by men supports household functioning, allowing women to concentrate on other essential responsibilities such as meal preparation and caregiving.*

## **7. Factors of Differentiation in Rural and Urban Household Food Practices**

Household food practices are profoundly influenced by cultural, social, and economic contexts, significantly shaping daily life for families. In both rural and urban settings, women predominantly shoulder the responsibility for cooking, navigating a complex array of factors to ensure the well-being and satisfaction of their family members. These factors include individual tastes, health considerations, employment schedules, and the transmission of culinary knowledge. This section delves into the intricate dynamics of rural and urban household food practices, highlighting the adaptability and resourcefulness of women in managing their multifaceted roles.

### **6.1 Food Practices of Rural Households**

#### **6.1.1 Individual Tastes and Health Considerations**

In rural households, women face the constant task of catering to the individual tastes of their family members, especially children. The daily decision of what to cook is largely influenced by family preferences and requests, although women predominantly decide on the menu themselves. Commonly requested foods include ragi puttu, adai, ragi ball, poori, biriyani, and other uncommon dishes, often prepared based on the preferences of husbands and children. While some households see younger ones, particularly children, preferring non-vegetarian options frequently, others have children who prefer staples like rice with vegetable sambar. Middle and higher-income women often cook a variety of non-vegetarian items such as chicken, mutton, and fish on holidays, particularly Sundays, to cater to different family members' preferences. In certain households, where only men prefer non-vegetarian food, they eat out or purchase foods like chicken rice and parotta for their children based on their requests.

Health considerations are crucial in determining the daily meal schedule in rural households. Specific dietary needs, such as diets for diabetes, blood pressure, tuberculosis (TB), and other health conditions, require careful attention. Some rural households have started adapting their food consumption to accommodate the rise in diabetes by incorporating more millet-based and wheat-based foods and reducing rice intake. Women often prepare special dishes like porridge and ragi balls for diabetic family members, and households managing blood pressure avoid high-sugar and high-salt foods. This adaptability in meal planning showcases the role of women not only as cooks but also as caregivers, who prioritize the health and well-being of their families through their culinary choices.

Despite these efforts, a noticeable struggle exists between traditional food practices and modern health requirements. Many older individuals reminisce about the millet-based diets of their youth, attributing their past robust health to these traditional foods. They recall how their parents and grandparents lived long, healthy lives without modern ailments like diabetes and hypertension, which they believe are exacerbated by current rice-centric diets and the use of chemical fertilizers and pesticides in agriculture. Rural households also show a strong awareness of the health implications of modern food processing and the benefits of traditional methods. For example, the switch from home-ground millet to processed rice is lamented, with many noting a decline in health and an increase in diseases following this dietary shift. There is a clear preference for traditional cooking methods and ingredients perceived to be healthier, such as mud pot cooking and homemade spices. However, cultural shifts, lifestyle changes, and the lack of time, especially for women engaged in other income-generating activities, force them to adapt to modern unhealthy cooking practices.

The adaptability of these households is evident in their meal planning and preparation. Women modify their cooking to include more nutritious ingredients, despite the family's preference for less healthy options. They incorporate vegetables high in water content, avoid oily and fried foods, and strive to prepare balanced meals that cater to the specific health needs of their family members. Tea and traditional remedies like jeera water or kashayam are common, especially when someone falls ill. Evening snacks often include healthier options like ragi porridge, prepared twice a week. This emphasis on traditional, health-promoting foods reflects the dual role of women as both cooks and caregivers, who prioritize their families' well-being through their culinary choices.

### **6.1.2 Employment and School Attendance of Family Members: Juggling Time for Cooking**

Juggling time is a significant challenge for women in rural households, particularly those managing both domestic chores and employment. Their cooking schedules are meticulously planned around the work and school timings of family members, reflecting a deep sense of responsibility and organization. For instance, many rural women describe waking up around 5 a.m. to clean the house, fetch water, and prepare breakfast and lunch before their children leave for school at 8 a.m. This early start ensures that meals are ready on time, highlighting the continuous effort required to maintain a well-functioning household.

In lower-income rural households, where women often engage in farm labour, the challenges are even more pronounced. Many must leave for work before 8 a.m., necessitating a tightly packed morning schedule. They prepare both breakfast and lunch in the early hours to ensure their children have nutritious meals to take to school. Dinner is then prepared in the evening after returning home from a long day of physical labour. This demanding routine requires balancing the preparation of fresh meals with employment responsibilities.

The lack of refrigeration in many rural homes means that women must prepare fresh food daily, adding to their workload but ensuring the family consumes freshly cooked meals every day. This practice, while labour-intensive, is rooted in cultural norms and health beliefs that prioritize the freshness and nutritional value of meals. Some women mention using leftover rice with curd for the next morning's meal, a practice considered beneficial for health.

### **6.1.3 Transmission of Recipes and Culinary Knowledge**

The transmission of culinary knowledge in rural households predominantly occurs through the family, especially from mothers and mothers-in-law. Many women reported learning to cook from their mothers or other elder female relatives before marriage. This traditional method of learning ensures the preservation and continuation of local culinary practices and recipes. However, there is a growing influence of modern technology in the transmission of recipes. Some women mentioned using TV, and YouTube to learn new recipes, reflecting a blend of traditional knowledge with contemporary resources. This dual approach allows them to experiment with new dishes while maintaining their cultural culinary heritage.

The education level of these women also plays a role in their cooking practices and the adoption of new methods. Women with limited formal education often rely heavily on traditional knowledge passed down through generations, while those with more exposure to external resources, such as the Internet, are more likely to incorporate new recipes and cooking techniques into their repertoire. The traditional methods of learning and preparing food are complemented by modern technological aids, reflecting a dynamic and evolving culinary landscape in rural areas.

## **6.2 Food Practices of Urban Households**

### **6.2.1 Individual Tastes and Health Considerations**

Women in urban households constantly juggle multiple roles, driven by the need to cater to individual preferences, particularly those of their children, while also accommodating specific health requirements. For instance, some women ensure that their children's meal preferences are met by asking them the previous night what they would like to take to school. This constant attention to individual tastes often extends beyond children to other family members. A notable example includes a few households where certain vegetable gravies are avoided to suit the tastes of some members, leading to the preparation of alternative dishes. Similarly, one household maintains the tradition of cooking rice and sambar in mud pots due to the husband's preference, underscoring the importance of individual tastes in daily meal preparation.

The link between food and health is deeply acknowledged, with various household members citing the importance of consuming traditional and nutrient-rich foods. For example, millet-based

foods, which were a staple in the past, are recognized for their superior health benefits compared to contemporary food options. Despite the challenges posed by modern food production methods and urban living conditions, efforts are made to consume home-cooked meals and avoid processed or restaurant food. This is partly driven by an understanding of the negative health impacts associated with such foods, such as the increased prevalence of lifestyle diseases like diabetes and hypertension.

Health considerations play a pivotal role in shaping cooking practices. In several households, specific diets are followed due to health conditions such as diabetes or hypertension. For instance, some families incorporate nutrient-dense foods such as Nutri-mix drinks and fresh vegetables and soups regularly. One woman mentions avoiding the use of pressure cookers because her husband finds the taste of food from them unpalatable, suggesting a careful adjustment to cater to health-related preferences. Another household strictly adheres to the doctor's advice of consuming hot food, necessitating cooking fresh meals three times a day. These health-driven dietary adjustments highlight the significant influence of medical advice and health conditions on the culinary practices within these urban households. Additionally, some households adopt traditional food preparation methods, such as grinding and mixing vegetables into dosa batter, to ensure that children receive the benefits of vegetables they otherwise refuse to eat.

Furthermore, the role of traditional knowledge in maintaining health is evident. For instance, consuming kashayam (herbal decoction) and specific dietary adjustments during different seasons are common practices among many households aimed at optimizing health. Families also adapt their food habits based on the availability of organic produce, and there is a growing awareness of the benefits of organic and less processed foods, even though access and affordability are limiting factors.

### **6.2.2 Employment and School Attendance of Family Members: Juggling Time for Cooking**

Balancing employment and school schedules with cooking duties presents a significant challenge for many women in urban households. The need to juggle various time commitments is evident in the meticulous time management strategies adopted by some families. For example, some women wake up early to prepare breakfast and lunch before leaving for their jobs at offices or workplaces. This highlights the delicate balance they maintain between their professional responsibilities and domestic duties.

The dedication to preparing fresh meals daily is a common practice among these households, reflecting a cultural emphasis on consuming freshly cooked food rather than relying on leftovers. Some families explicitly avoid keeping leftover rice for the next day, underscoring the importance placed on the freshness and quality of meals. Support from family members is crucial

in managing these dual responsibilities. In some families, children assist with both household chores and cooking, alleviating some of the burden on the primary cook.

The school schedules of children also significantly influence cooking routines. For instance, many women cook breakfast and lunch early in the morning before their children head to school, ensuring they carry a home-cooked meal. Weather conditions also play a role in meal planning. Families consider the weather when packing their children's lunch, avoiding foods that can spoil quickly on hot days. They prefer to cook such items on holidays, considering the health benefits of various dishes. For instance, cooking dishes like keerai on Sundays is a practice in some families, balancing nutritional needs with preferences.

Children's preferences and modern food habits add another layer of complexity. Many rural mothers face resistance from their children, who prefer fast food such as noodles, parotta, and omelettes, over traditional meals. A few women recount how their children adamantly refuse to eat the vegetable-based food and poriyal they pack to school, often bringing the food back home uneaten. This pressure to conform to modern food trends seen in urban areas complicates the meal planning process. Despite their efforts to promote healthier eating habits, mothers often yield to their children's demands occasionally by preparing noodles, fried rice, poori, and other popular foods.

These urban households often adapt their culinary skills to include a variety of dishes that appeal to their families. Some families have expanded their repertoire to include North Indian dishes, like channa puri, bhel puri, and various sabzis, which incorporate a range of vegetables and greens. This not only caters to their children's tastes but also ensures a balanced diet.

### **6.2.3 Transmission of Recipes and Culinary Knowledge**

The transmission of cooking knowledge and recipes within urban households reveals a blend of traditional and modern learning methods. While formal education levels among these women vary, many have learned cooking through practical, hands-on experiences after marriage rather than from their mothers which is more common among their rural counterparts. The traditional transmission of recipes from mothers and mothers-in-law remains prevalent. Several women recount learning cooking by observing their mothers or mothers-in-law, although direct instructions were often minimal. One woman, for example, started cooking with help from her mother-in-law and sister-in-law after marriage, learning through observation and gradual practice.

Modern technology has introduced a new dimension to culinary learning. YouTube and other online resources have become valuable tools for many women seeking to expand their culinary expertise. Many women mentioned trying new recipes by watching YouTube videos, indicating a shift from purely traditional learning methods to incorporating modern, digital resources. Few

other women fill gaps in their knowledge by discussing with their friends and neighbours, demonstrating the adaptability and resourcefulness of these urban household cooks.

### **6.3 Women's Role in Shaping Household Food Practices**

*Household food practices in rural and urban settings intertwine tradition with adaptation, underscoring women's pivotal role as caretakers and culinary custodians. In rural areas, women uphold ancestral culinary techniques and ingredients like millet, navigating health challenges through traditional wisdom while embracing modern dietary adjustments. Conversely, urban households blend diverse culinary influences and digital resources, reflecting a dynamic approach to meal preparation amidst bustling lifestyles, eating more millets than rural households but also more processed food. Across both landscapes, women exhibit resilience in balancing cooking responsibilities with familial and professional commitments, ensuring nutritional adequacy and cultural continuity. Their adeptness in transmitting culinary heritage, bridging generations through traditional teachings and contemporary platforms, signifies their enduring influence in shaping the culinary landscapes of the future generations.*

## **8. Conclusion: Evolution and Determinants of Food Consumption Patterns - Socio-Economic, Cultural, and Gender Perspectives**

Over the past four decades, the region has undergone significant changes in food consumption patterns, marked by a substantial decline in millet production and consumption in favour of rice and other crops. These shifts have been influenced by a complex array of factors, including government policies such as the Green Revolution, evolving agricultural practices, changing dietary preferences, economic pressures, and cultural transformations. The Green Revolution with focus on high-yielding rice varieties, synthetic fertilizers, and pesticides, supported by the expansion of the Public Distribution System (PDS)—played a pivotal role in making rice cultivation accessible, affordable, and a staple in both rural and urban diets.

Historically, millets like ragi, cumbu, varagu, tinai, panivaragu, and samai were integral to the regional diet. However, changing agricultural practices and market preferences, along with cultural influences, led to a marked decline in millet cultivation and consumption. Farmers have increasingly turned to high-yielding crops, cash crops, and less resource-intensive dry crops in response to economic constraints, limited resources, and shifts in the labour economy. Even among those who continue to grow millets, issues such as changing dietary preferences, the inferior taste of newer millet varieties, difficult post-harvest operations, and health challenges like skin allergies caused during inter-cultivation operations have further contributed to the decline of millet production.

### **7.1 Transition from Millet to Rice-Based Diets Across Rural and Urban Contexts**

The shift from millet to rice-based diets is evident across both rural and urban settings, with varying dynamics. In rural households, millet which was a dietary mainstay for generations has largely been replaced by rice due to urbanization, globalization, and the convenience of rice-based foods. Although many are aware of the health benefits associated with millet, factors such as economic constraints, practical challenges, and evolving lifestyle preferences limit its regular consumption. Millet use is often restricted to seasonal periods, especially during summer. Older generations recall the health benefits of millet-rich diets, attributing their robust health to these foods, while younger generations prefer rice for its convenience, taste, and perceived status.

In urban areas, the shift toward rice-based diets has been further fuelled by fast-paced lifestyles, increased access to processed foods, and contemporary dietary preferences. However, recent years have seen a revival of interest in traditional millet-based foods among certain urban demographics, driven by a desire for healthier options and nostalgia for traditional diets. Health-



conscious individuals and cultural enthusiasts are now actively seeking and promoting millets, contributing to their renewed popularity. This revival is more pronounced among higher-income households, which have the means to access a wider variety of millets and experiment with innovative millet-based dishes.

## **7.2 Gender Roles in Food Practices**

Gender plays an essential role in shaping food practices and consumption patterns. Particularly women, being the primary food preparers, significantly influence household dietary choices. In rural households, men and women share a similar understanding of the connection between food and health outcomes, especially as concerns over lifestyle diseases like diabetes and hypertension grow. However, perspectives differ when it comes to preparing and consuming healthy, traditional dishes such as millet and keerai (greens). Men often express a desire for these nutritious dishes to be prepared regularly, citing the availability of ingredients, while women who carry the primary responsibility for food preparation highlight the challenges these dishes pose. Preparing millet and keerai is time-consuming and labour-intensive, which is especially burdensome for rural women in lower-income families who also engage in daily farm labour.

In urban settings, women face additional constraints as they balance their roles as homemakers and professionals, which impacts their ability to regularly prepare traditional millet dishes. Conversely, when women have more time and resources, they actively incorporate nutritious millet-based foods into their family's diet, driven by health awareness and cultural values. While men in higher-income families also promote millet consumption for its health benefits, women primarily drive these dietary changes, showcasing their importance within household food practices.

## **7.3 Differentiation by Caste, Class, Generation and Domicile in Food Consumption Patterns**

Food consumption patterns are further distinguished by caste, class, generational, and domicile divides, underscoring the complexity of dietary choices within the region. Especially cultural and economic values intersect significantly in food practices, influenced by caste and socio-economic status. Lower-class households, despite their desire to maintain millet consumption, often restricted by economic constraints, prioritize affordable food options, Middle and upper-class families tend to integrate more diverse foods and prioritize health. While they recognise the health benefits of millet, often cite convenience and time constraints as barriers to regular consumption. So, these families also prioritize convenient and time-saving foods, leading to lower millet consumption.

Non-vegetarian preferences vary widely among castes, with certain communities viewing meat as a symbol of prosperity. At the same time few meat varieties such as beef, and pork are not

commonly accepted among most middle and upper-caste families. These complexities illustrate how cultural identities and economic realities both influence and restrict dietary choices within the region. Generational differences also play a role, with younger people favouring rice-based diets influenced by urbanization and modernization, while older individuals recall millet-rich diets with a sense of nostalgia.

The rural-urban disparity in millet consumption is also notable. Rural households, especially those with limited resources, show a substantial decline in millet consumption, whereas urban households exhibit pockets of resilience and revival, influenced by health awareness and broader dietary options. In rural areas, millet consumption often includes primarily ragi and cumbu, while urban households, especially those with higher incomes, embrace a broader variety, such as varagu, samai, and thinai, which reflects both dietary diversity and health consciousness.

## **7.4 Transformation of Culinary Knowledge**

The transmission of culinary knowledge both in rural and urban settings varies significantly, influenced by cultural practices, educational levels and access to modern resources. This transmission emphasizes the kitchen as a place of both constraint and support for a standardized feminine identity. This dual role is especially evident in rural households, where culinary knowledge is predominantly passed down through elder female family members, primarily mothers and mothers-in-law, who instruct younger women in practices that reinforce cultural continuity and familial responsibility. This transfer of knowledge not only sustains traditional roles and practices but also reinforces the kitchen as a space where women are both bound by and connected to their heritage.

In rural settings, the role of relatives and neighbouring women becomes especially important, as they often assist younger women in preparing specific dishes, like non-vegetarian meals, in the absence of elder women within the family. With the growing influence of modern technology, rural women now blend traditional knowledge with contemporary practices, using media like television cooking shows, and YouTube to expand their culinary skills and adapt traditional recipes. This exposure allows rural women to experiment with new dishes, balancing the preservation of culinary heritage with modern influences.

Urban households exhibit a similar blend of tradition and modernity in culinary knowledge transmission, although the methods and sources of learning differ. Unlike their rural counterparts, many urban women acquire cooking skills post-marriage, through hands-on experience from elder women, often supplemented by digital resources such as television, social media, and YouTube channels. This shift from traditional familial learning to more flexible, technology-enabled methods allows urban women to embrace a wider variety of culinary influences and styles, while still catering to familial expectations and health considerations.

Despite modern influences, the kitchen remains a space where familial expectations and health considerations shape women's roles.

The role of education also plays a vital part in shaping culinary practices in both rural and urban settings. Women with limited formal education tend to rely more heavily on traditional culinary practices and the advice of elder family members, while those with better education and greater access to external resources are more inclined to experiment with new recipes and techniques. This dynamic highlights women's adaptability, as they navigate both the expectations of preserving culinary heritage and the integration of modern influences. This intersection between tradition and modernity is particularly visible among women who actively engage with digital platforms to enhance their cooking skills.

## **7.5 The Kitchen as a Site of Constraint and Support**

Despite the enriching potential of the kitchen as a place of knowledge transmission, it also reinforces a gendered division of labour within the household. Women's responsibilities in food preparation include tasks from sourcing ingredients to transforming them into meals. These duties, combined with other household responsibilities, place a significant burden that often limits women's roles to the domestic sphere.

In rural households, the division of labour is often marked by a clear gender distinction: men typically handle the procurement of food and household essentials, while women manage the storage, processing, and preparation of meals. This setup highlights the interdependence within the household but also reinforces the gendered expectations that confine women to certain roles. In urban settings, although men may assist with heavier tasks and sourcing ingredients, women predominantly manage food preparation, ensuring continuity in culinary practices and the maintenance of a standardized feminine identity.

In both rural and urban households, women cater to the varied preferences and tastes of family members, often preparing multiple dishes, particularly on weekends and special occasions when everyone is home. Non-vegetarian preferences, mainly among men and children, add to the workload. This highlights the considerable time and effort women invest in cooking, limiting their ability to participate in professional and economic activities. Despite these challenges, many women in both rural and urban areas engage in employment, professional roles, and small family businesses. Yet, household and cooking duties remain their primary responsibilities, creating a dual burden that limits their full participation in professional and economic spheres.

Women's roles in food preparation underscore both their resilience and resourcefulness. They are instrumental in maintaining culinary continuity while also demonstrating adaptability to contemporary trends and innovations. Through these practices, the kitchen emerges as a place

where women's identities are both restricted by traditional roles and empowered by their contributions to family well-being and cultural preservation.

## **7.6 Food and Health Knowledge, COVID-19 Impact, and Systemic Constraints**

An intrinsic understanding of the relationship between food and health continues to shape dietary choices in both rural and urban settings, guided by centuries-old culinary wisdom. Many households in the region emphasize the health benefits of millet-based diets, which are seen as more nourishing and balanced than modern, rice-dominant alternatives. This dietary knowledge often passed down through generations, represents a form of cultural heritage that households maintain as a means of ensuring family health and resilience.

The COVID-19 pandemic reinforced the significance of these traditional dietary practices, highlighting food's role in supporting health and immunity. During lockdowns, economic disruptions exposed vulnerabilities in food access, prompting a resurgence in the use of millet and other traditional foods believed to strengthen immunity and provide balanced nutrition. This period illustrated the resilience of local food systems and the importance of preserving traditional knowledge as a safeguard for community health during times of crisis.

Despite this rich dietary knowledge, rural and urban households often feel confined by a food system that limits access to quality, affordable foods. Many express concerns about chemically treated agricultural products and processed rice, which they associate with health risks. While pesticides and fertilizers in conventional farming aim to increase yields, they also raise fears of long-term health effects. Rural communities, in particular, worry about chemical residues and express a desire for safer, more sustainable food options.

This awareness of health risks often accompanies a sense of helplessness, as healthier food alternatives are either inaccessible or unaffordable. Families feel constrained by a system that prioritizes high-yield, cost-effective crops over nutritional quality. Even households that consume their own farm-grown produce acknowledge that avoiding synthetic inputs would mean severe economic losses, potentially leaving them unable to afford any food for their families.

In contrast, some households, especially in urban areas with greater economic means, are turning to organically grown local food sources to minimize the health risks associated with chemical-intensive agriculture. However, limited access to organic options and the high cost of pesticide-free, locally sourced foods continue to create significant barriers for lower-income families.

The pandemic further highlighted these constraints, as households confronted the limitations of a food system heavily reliant on mass-produced, chemically treated crops. Community-driven

initiatives and government support for sustainable agricultural practices are widely seen as necessary measures for empowering these communities. Educating farmers on organic and sustainable farming practices and ensuring equitable access to nutritious foods are recognized as essential steps toward addressing food security and promoting community health.

In conclusion, the region navigates a complex landscape where traditional dietary knowledge and modern food systems intersect, often with conflicting outcomes. The resilience of these communities is evident in their commitment to preserving healthier food practices despite systemic constraints. Efforts to develop sustainable food systems that integrate traditional wisdom with modern innovations will be vital in promoting holistic well-being and community resilience, especially in the face of global crises like the COVID-19 pandemic.

## 7.7 Key Factors Influencing Food Habits

The study highlights multiple socio-economic, cultural, and practical factors influencing food habits and consumption patterns, which include:

1. **Class and Economic Means:** Class significantly impacts food choices due to differences in purchasing power and social expectations. For instance, lower-income rural households often rely on cheaper staples like PDS rice, limiting their millet consumption despite a preference for millet's health benefits. Conversely, in urban settings, middle and upper-class families explore a broader range of millet varieties and incorporate speciality items such as traditional rice due to higher disposable incomes. Middle-class and upper-class households can afford healthier options, such as millet-based products, that require greater preparation time and are less readily available at lower prices. Women in upper-income groups have more time and resources to prepare such foods, especially when they are not involved in full-time employment.
2. **Caste and Community Tradition:** Caste traditions also influence dietary preferences, especially in rural areas. Upper-caste households generally have greater land access, allowing for more variety in their diets, including traditional grains like ragi and speciality greens. In rural settings, Dalit households, often with limited land, have less access to diverse and higher-quality food options, which constrains them to simpler, rice-based meals. Additionally, the caste-based community traditions in Krishnankuppam show how some groups have customs around specific non-veg foods like beef and pork, that reflect their cultural and dietary heritage.
3. **Urban-Rural Divide:** The urban-rural divide shapes access to various foods. Urban residents in Ariyankuppam benefit from proximity to diverse markets, allowing access to a wider array of millets and traditional rice. Meanwhile, rural households in Krishnankuppam face challenges accessing certain foods due to the limited variety in

local shops. Rural households typically rely on local production and seasonal availability, with rice as the dominant staple due to its ease of access and affordability through PDS. Urban households, however, are more likely to incorporate foods like millet-based gruel due to health concerns heightened by lifestyle diseases.

4. **Women's Employment:** The employment status of women directly influences food habits, especially regarding convenience and meal preparation. In households where women engage in farm work or employment outside the home, the time required to prepare labour-intensive foods, like millet dishes, limits their frequency. Urban women balancing jobs with household responsibilities lean toward quick, easy-to-prepare items, further reinforcing rice's popularity due to its ease of cooking and widespread availability. For middle and upper-income households, where women are less frequently employed, it is feasible to prepare more complex and varied meals, including millet-based dishes.
5. **Health Awareness:** Health awareness is a growing factor, especially among urban populations. In Ariyankuppam, households influenced by rising lifestyle diseases such as diabetes increasingly seek out healthier grains like millet. Health consciousness has also led some rural and urban households to embrace traditional millets, particularly after the COVID-19 pandemic heightened focus on immunity-boosting foods. However, the high price and limited access to millet mean that for rural and lower-class households, health motivations alone are often not enough to drive regular consumption.
6. **Agricultural Ties:** Agricultural connections impact food habits differently across households. In rural Krishnankuppam, households with access to family farms have a ready supply of certain millets, vegetables, and greens, reducing dependence on external markets. Households without farm access, often lower-class families, purchase food from local farmers or markets, impacting their dietary diversity. In Ariyankuppam, urban households sometimes receive millet and produce from relatives with farms, adding variety to their diets and enabling them to prepare traditional dishes that would otherwise be costly.
7. **Household Composition:** Household composition also plays a role. Larger families, particularly those in rural areas, often prioritize staple grains like rice to meet the demands of multiple family members economically. In contrast, urban households with elderly members sometimes prioritize millet-based foods due to perceived health benefits. At the same time, families with children mostly opt for rice-based dishes mainly for the taste and preferences of younger generations. Families with more children and elderly members have a challenging time balancing diverse dietary needs with limited resources, especially among lower-income households.

These findings underscore how each factor shapes dietary choices uniquely, revealing the intricate interplay between socio-economic, cultural, and practical factors across rural and urban households. These insights highlight the need for multi-dimensional strategies to support sustainable, resilient, and culturally respectful food systems.

## Glossary of Recipes and Few Generic Tamil Words

### Common Meals (Dishes) with Description

S. no.	Tamil Term	English Description
1.	Idli	Steamed rice cakes made from fermented rice and lentil batter that are soft, fluffy, and mildly tangy. Typically served hot with sambar (a lentil and vegetable stew) and chutney.
2.	Dosa	A thin, crispy crepe made from the same batter as idli. Popular variations include onion dosa (Filled with finely chopped onions), masala dosa (filled with spiced potatoes) ghee dosa (topped with ghee), and podi dosa (topped with a spicy lentil mixture).
3.	Pongal	A savoury dish made with rice, moong dal, spices, and ghee. It's a common breakfast item. Sakkarai (Sweet) Pongal: A sweet version of same dish is common for special occasions with added jaggery and nuts instead spices.
4.	Upma	A savoury dish made from roasted semolina (rava) cooked with vegetables, spices, and sometimes nuts. Sometimes it also made with vermicelli.
5.	Sambar	Sambar is a lentil and vegetable stew with a tangy tamarind flavour. It is a versatile dish enjoyed with idli, dosa, rice, and other South Indian staples.
6.	Chutney	Chutney is a pungent relish or sauce typically made from vegetables, or nuts ground or pounded into a paste. Usually, different chutney varieties can be made with a wide range of ingredients, such as coconut, peanut, mint, coriander, tomato, mango, and tamarind.
7.	Kuzhambu	Kuzhambu is a broad term encompassing a variety of South Indian stews and curries. These dishes range from mild to spicy, and often include vegetables, lentils, and sometimes meat or seafood. They typically have a thicker consistency compared to rasam.
8.	Rasam	Rasam is a tangy and spicy soup or broth characterized by its unique flavour profile. Rasam is typically made with tomatoes, lentils, and a blend of spices, often including pepper and cumin. It's known for its refreshing and digestive properties, and is often enjoyed as a side dish or even as a standalone dish with rice.
9.	Koozh	Koozh (Porridge) is a prevalent breakfast item, is typically left to ferment overnight after cooking, commonly accompanied by simple side dishes like pickles, onion, and green chillies. It is traditionally prepared thick one day in advance and left to ferment overnight, resulting in an energetic breakfast option consumed cold the next morning.



	Ghanji	Ghanji (Gruel) is a hot, instant version of porridge known as Gruel (Ghanji in Tamil). The thinner variant of porridge, typically consumed early in the morning as a substitute for tea or coffee
11.	Ragi balls	Ragi balls are steamed dumplings made from ragi flour. They are often served with sambar, Keerai or non-veg curry. Ragi is a nutritious millet, rich in calcium and iron, making these balls a healthy and filling option.
12.	Adai	Adai is a savoury pancake made by blending flat rolling ragi dough with moringa keerai and onions, and cooked like roti serves as a nutritious snack option enjoyed between meals
13.	Puttu	Puttu is a steamed cake comprising ragi flour, jaggery, and grated coconut, offers another snack choice.
14.	Vada	Vada is a deep-fried savoury fritter. A common type is "Medu Vada," made from lentil batter shaped into a donut-like form.
15.	Bonda	Bonda is another popular South Indian snack, also a deep-fried fritter. It can be made with various fillings like potato, vegetables, or lentils.
16.	Bajji	Bajji is a broader term encompasses a wider range of deep-fried snacks, including those made with vegetables (like onion bajji, banana bajji), bread, and other ingredients coated with Besan flour batter.
17.	Poriyal	A dry vegetable stir-fry. Poriyal can be made with a wide range of vegetables, including leafy greens and vegetables
18.	Kootu	Kootu is a thick lentil and vegetable stew, often with a creamy texture due to the addition of coconut or coconut milk, and typically featuring mild spices.
19.	Payasam	A sweet dessert made from milk, rice, jaggery, and nuts. Payasam is often served during festivals and special occasions. There are many variations of Payasam, each with its own unique flavour and texture.
20.	Tiffin	In South India, "tiffin" refers to a light meal typically eaten for breakfast or as a snack. It can include a variety of dishes such as idli, dosa, vada, pongal, upma, and many more. Tiffin is often served with chutneys and sambar.

## Tamil Names of Millets, Traditional rice and Greens

S. no.	Tamil Term	English Common Names
<b>I</b>	<b>Millet Varieties</b>	
1.	Cumbu	Foxtail millet ( <i>Setaria italica</i> )
2.	Ragi	Finger Millet ( <i>Eleusine coracana</i> )
3.	Tinai	Barnyard Millet ( <i>Echinochloa frumentacea</i> )
4.	Varagu	Kodo Millet ( <i>Paspalum scrobiculatum</i> )
5.	Panivaragu	Proso Millet ( <i>Panicum miliaceum</i> )
6.	Samai	Little Millet ( <i>Panicum sumatrense</i> )
7.	Cholam	Sorghum ( <i>Sorghum bicolor</i> )
8.	Kollu	Horse Gram ( <i>Macrotyloma uniflorum</i> )
<b>II</b>	<b>Traditional Rice Varieties</b>	
1.	Seeraga Samba	Seeraga - Cumin; It's a popular variety known for its aromatic flavour, similar to cumin seeds. It's often used in biryanis and other special dishes
2.	Mappillai Samba	Mappillai - Groom; It's a red rice variety known for its rich, nutty flavour and its association with weddings and celebrations. It's considered a premium variety
3.	Karupu Kavuni	Karuppu - Black; It's a type of black rice, rich in antioxidants and other nutrients. It's often used in traditional medicinal practices and is gaining popularity for its health benefits
<b>III</b>	<b>Keerai (Greens) Varieties</b>	
1.	Keerai	A generic Tamil term for leafy greens. This category includes a wide variety of greens, each with its unique flavor and nutritional profile.
2.	Kollaiveli keerai / Kalavai keerai / kalappu keerai	Mixture of various keerai (greens) varieties collected together from the farm during intercultural operations and cooked together as a thick gravy.