



# **A Study on Consumption Pattern of Household in Vallanadu, Thoothukudi District of Tamilnadu, India**

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## **ABSTRACT**

The study focussed on the consumption pattern of rural households to analyse household consumption expenditure on both food and non food items. The present study used the primary data collected from rural households in Vallanadu village of Thoothukudi district in Tamilnadu using the questionnaire. In demographic details, we have observed that the average family size of the household is 4. The village has almost equal population of male and female. Then the village has

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comparatively higher male adult than the female adult , higher male children than the female children. In profession the most of the village people has only primary income for their survival and only few people has secondary income in additional to primary income. In land holding pattern, the village has the highest wetland area for farming and food source. In cropping pattern, the major crop grown in vellanadu is paddy. In household assets, TV & Bike are the most available household assets. In Household consumption expenditure, the consumption of the cereals is comparatively higher than the pulses. In non-food expenditures, most of their income is spend for the education purpose. percapita consumption as highest for cereals with 400g and 177g per day of vegetables.

**Keywords:** Consumption expenditure; survey schedule; household; primary data; secondary data; sample.

## 1. INTRODUCTION

“India is a developing country where low infrastructural development coupled with high population growth has made the lives of many poor people very difficult. Still there are wide ranges of variation on educational expenditure in different income groups of the households. The benefits of knowledge and education go to higher income groups of rural households. Similarly in case of medical expenses and other necessary expenses are far away from these deprived masses which show a direct relationship with level of income” [1]. “The present study relates the consumption patterns of rural households to show the frequent changes in both food and nonfood consumption expenditure due to the changes of standard of living, income of the people and modernity of the society, especially due to the impact of Liberalization Privatization Globalization (LPG) plans and policies. Day-by-day the income elasticity of demand is increasing with the change in income. In other words the traditional Monthly Percapita Consumption Expenditure (MPCE) of the rural masses has been largely influenced and affected by the grip of modernity. The present study tries to analyse the changing pattern of rural household consumption expenditure under various changing situations of the society and its surroundings”. [1]

“Majority of consumption expenditure is still at household. For instance, out of household expenditure, consumption expenditure is increasing due to increase in urbanisation, breaking up of the traditional joint family system, desire for quality food, lack of time which translates in to an increased need for convenience. Increasing number of working women, rise in the per-capita income in forcible situations of other dominants, changing lifestyles and increasing level of prosperity of the surroundings with lack of saving attitude and appropriate awareness brought a significant changes in the expenditure patterns among the

rural communities. The study also examines the impact of rapid urbanisation and some sociological changing factors influencing consumption expenditure whether they are radical or remedial. The study also defines the income elasticity of expenditure as proxy for income elasticity of quantity demanded for total food, non-food and selected food group commodities among the rural households. To examine the impact, the actual distribution of monthly per capita incomes and other selected characteristics of the four income classes as identified in the rural region. Consumer price indices, computed to compare the price level in each state with that in rural India as a whole, are also employed to compare the average per capita total household expenditure in the different states at rural India prices. A major limitation of the price differential indices is the exclusion of item-groups like education and durables” [2]. “In fact, better quality of life is an important indicator of economic development and consumption pattern has changed with acceleration in quality of life, proving its significance. Indian customers’ dietary trends and consumption patterns have evolved over the years. Grains that accounted for 63 per cent of daily calorie consumption in 1961, have dipped to 55 percent in 2017. Consumers are increasing their consumption of proteins (from 55.3 g in 2000-02 to 63 g in 2015-17), fruits and vegetables, and superfoods such as green tea and olive oil. promoting nutritional security, sustainable diets are environmentally safer because of lower animal-based and more plant-based content” [3]. Informed consumers are concerned about the safety of the food they consume and how it is produced, packed, processed, and delivered. This has led to higher consumption of organic food, expected to grow at a CAGR of 21 percent to reach INR 182 billion by 2026 from INR 60 billion currently.

“Customer preference for food traceability has led to companies introducing such solutions. Clean labels are an emerging trend. There is

steady growth in the ready-to-eat and frozen food categories. Food delivery, be it online grocery or prepared food, is growing significantly (28 per cent CAGR for online food delivery for 2020-25, 53 per cent CAGR for online grocery for 2020-25) with multiple established companies and start-ups operating in this sector. The consumption of cereals has declined over the periods. The monthly per capita consumption of pulses was almost stable over the two periods in rural and urban areas” [4]. This essay examines the pattern of consumption expenditures as a percentage of both the volume and the variety of goods consumed in Vallanadu in recent years. It investigates if the consumption expenditure pattern has changed over time. Also examined are significant regional variations in the consumption patterns of food and non-food items. Hence the present study is attempted with the following objectives;

- The core objective of the study is to analyze the consumption pattern of households with following specific objectives.
  - To study the household consumption pattern of food and non food items.
  - To study the per capita food consumption of the households
  - To study the household consumption expenditure on food and non food items.
  - To suggest suitable policy measure on consumption pattern.

## 2. METHODOLOGY

Random sampling is a method of choosing a sample of observations from a population to make assumptions about the population. It is also called probability sampling. The counterprt of this sampling is Non-probability sampling or Non-random sampling. The primary types of this sampling are simple random sampling, stratified sampling, cluster sampling, and multistage sampling. In the sampling methods, samples which are not arbitrary are typically called convenience samples. he primary feature of probability sampling is that the choice of observations must occur in a ‘random’ way such that they do not differ in any significant way from observations, which are not sampled. We assume here that statistical experiments contain data that is gathered through random sampling. Vallanadu village of thoothukudi district was purposely selected since it is near to the Agricultural college and Research Institute, Killikulam. Hence, the students of the AC & RI,

killikulam could collect the primary data from the respondents while attending the regular classes so as to complete the curricular requirements of the undergraduate program. A sample of 240 respondents were selected at random since random sampling method provides equal opportunity to all individual respondents from the selected village. The purpose of the study were explained to the respondents to have full cooperation from the selected respondents.

### 2.1 Sampling procedure

We used random sampling method for collection of primary data. With each member collecting 60 samples totalling upto sample size of 240. Face to face interview is conducted with the respondent with the help of pre tested interview schedule for the collection of data.

### 2.2 Analysis

#### 2.2.1 Master table

All the data collected from the sample of 240 respondents were computerized using Excel worksheet.

#### 2.2.2 Sub table

The data available on the master table were simplified and summarized in the form of sub table to draw a meaningful interpretation.

#### 2.2.3 Average and percentage analysis

Average and percentage analysis were used to analyze the data and derive meaningful inferences.

## 3. RESULTS AND DISCUSSIONS

### 3.1 Demographic details of Vallanadu Village

According to our survey and analysis, the Vallanadu village consists of an average 50.95(i.e. 51%) of male and an average 49.05(i.e.49%) of female. So, that the village has almost equal population of male and female.

**Table 1. Demographic details of the v Allanadu village**

Total population	7160
Male population	3546
Female population	3614
Literacy rate	70.42%
No. of households	1848

### 3.2 Income details of the Household

According to our survey and analysis, the average primary income of the people is about 82 (i.e. 82%) and the average secondary income of the people is about 18(i.e.18%). So, that most of the village people has only primary income for their survival and only few people has secondary income in additional to primary income.

### 3.3 Land Holding Pattern of Household

According to our survey and analysis, the Vallanadu village has an average wetland area of about 62.62ac (i.e.63%),average garden land area of about 16.46ac (i.e.16%), average dryland area of about 20.93ac (21%). So, that the village has highest wetland area for farming and food source.

### 3.4 Cropping Pattern of Vallanadu

Cropping pattern refers to the proportion of land under cultivation of different crops at different points of time. Cropping pattern also determined by rainfall, temperature, climate, technology and soil type.

### 3.5 Household Assets

According to our survey and analysis, 21% of the people were using the washing machine,105% of the people were using TV, 83% of the people were using fridge, 3% of the people were using oven, 23% of the people were using the inverter, 20% of the people were using A.C.,

103% of the people were using Bike, 13% of the people were using car,60% of the people were using cycle, 26% of the people were using sofa, 19% of the people were using dining table, 85% of the people were using Mixie.

### 3.6 Household Food Consumption

“Cereals were the main source of dietary nutrients in all villages. The share of cereals in total food expenditure was high as 79.5 %. Significant disparity in cereal consumption was noticed across the villages” [5]. According to our survey and analysis, the average quantity of the cereals consumed is about 48.2kg and it contributes 41% of the total consumption, the average quantity of the pulses consumed is about 11.2kg and it contributes 10% of the total consumption, the average quantity of the oil consumed is about 9.6 litres and it contributes 8% of the total consumption, the average quantity of the spices consumed is a bout 7.8kg and it contributes 7% of the total consumption, the average quantity of the sugar and jaggery consumed is about 6.7kg and it contributes about 6% of the total consumption, the average quantity of the meat consumed is about 5.5kg and it contributes about 5% of the total consumption, the average quantity of the beverages consumed is about 0.9kg and it contributes about 1% of the total consumption, the average quantity of the vegetables consumed is about 18.8kg and it contributes 16% of the total consumption, the average quantity of the fruits consumed is about 9.4kg and it contributes about 8% of the total consumption.

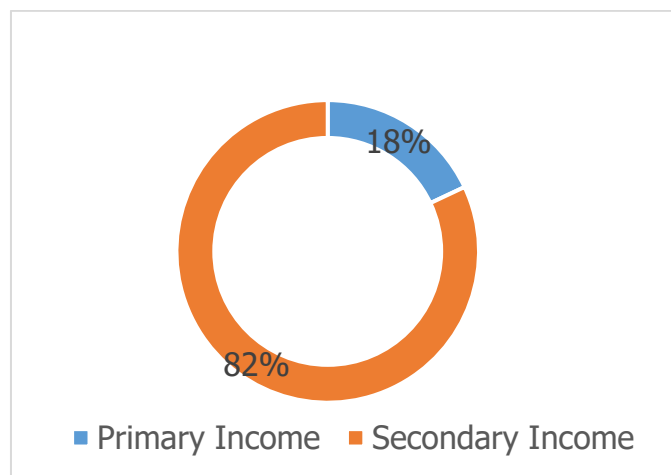
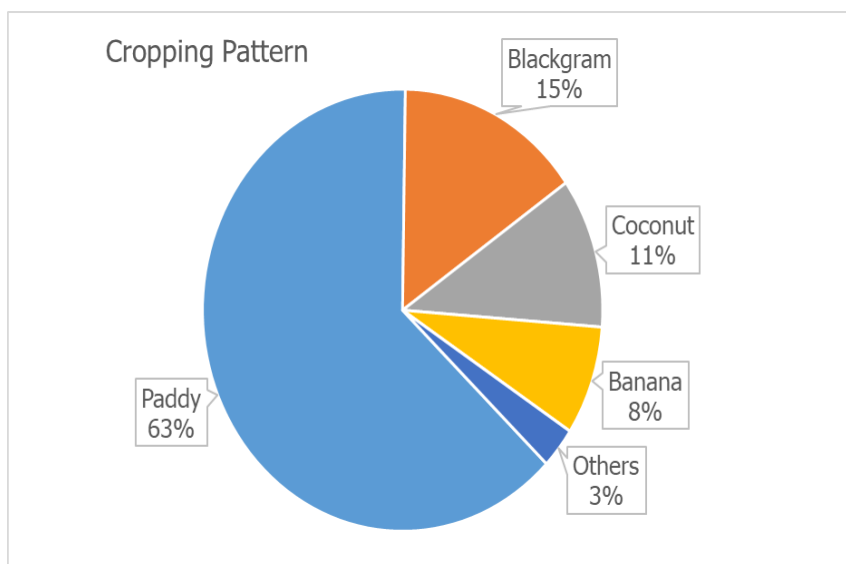


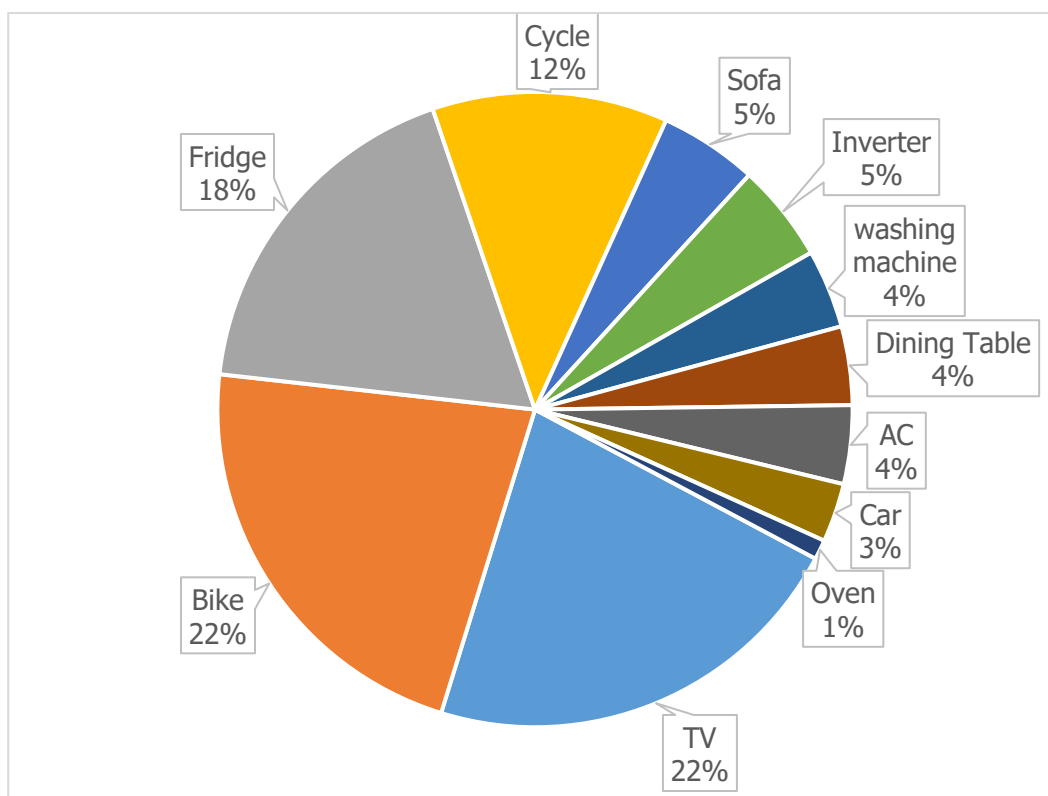
Fig. 1. Income details

**Table 2. Landholding pattern of household**

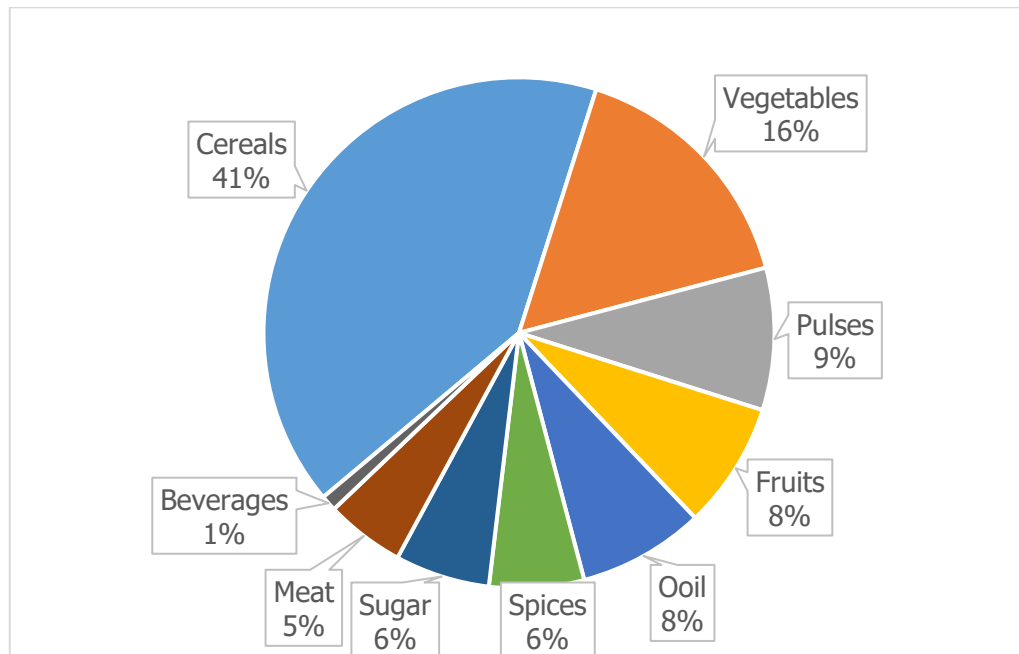
Sl. No	Particulars	Area (In acre)	% to total
1	Wetland	137.35	63
2	Garden land	36.1	16
3	Dryland	45.9	21
4	Total	219.35	100



**Fig. 2. Cropping pattern**



**Fig. 3. Household assets**



**Fig. 4. Household food consumption**

### 3.7 Per capita Consumption

“Indians are changing their food consumption pattern powered by growing income levels, urbanization and increasing awareness about healthy living, travel abroad and hunger of the people. More over culture and socio economic status of the population influences food choice and a pattern of consumption of some food items is likely to vary according to season and often based on availability and price. More over the food consumption pattern has been dramatically changing between rural and urban consumers in India” [6].

According to our survey and analysis, the per capita consumption of cereals is about 400g per day, pulses – 93g, oil – 80g, spices – 63g, sugar – 57g, meat – 47g, beverages – 7g, vegetables – 157g, and fruits – 77g. “The monthly per-capita consumption of cereals declined from about 13 to about 11 kg in the rural areas, whereas, decline in urban areas was marginal, from 10.6 to 9.28 kg/month” [7].

### 3.8 Nonfood Expenditure

“As real household incomes grow, there is an expected change in the composition of the household budget: a decrease in the share of expenditures going to food items and an increase in the share going to non-food items” [8]. According to our survey and analysis, 8% of their

income is spend for cloth, 33% of their income is spend for Education, 4% of their income is spend for Health, 3% of their income is spend for House rent, 3% of their income is spend for Electricity, 0.5% of their income is spend for Tax, 0.2% of their income is spend for water, 2% of their income is spend for communication, 11% of their income is spend for their fuel, 11% of their income is spend for gas, 11% of their income is spend for Recreation, 2% of their income is spend for entertainment, 5% of their income is spend for family functions, 8% of their income is spend for festivals. so, that most of their income is spend for education purpose.

“The monthly per capita consumption expenditure (MPCE) on food items has declined from 72.83% to 52.76% and on non-food items has increased from 27.15% to 47.24% in the rural India during 1972-73 to 2011-12. While in the urban India the expenditure on food items has decline from 64.45% to 42.46% whereas expenditure on non-food items has shown a steady increase from 35.55% to 57.54% during 1972-73 to 2011-12. Analysis shows that in future, changes in percentage consumption on non-durable and miscellaneous goods and services for both rural and urban are similar according to the trend. Percentage consumption on durable goods in rural has increased according to its trend but in the case of urban it has increased more” [9].

**Table 3. Per capita consumption**

Sl. No.	Items	Per Capita Consumption (in g per day)
1	Cereals	400
2	Pulses	93
3	Oil	80
4	Spices	63
5	Sugar	57
6	Meat	47
7	Beverages	7
8	Vegetables	157
9	Fruits	77
10	Total	981

**Table 4. Nonfood expenditures**

Sl. No	Particulars	Yearly expenditure	%to total expenditure
1	Cloth	17170	8.13
2	Education	70329	33.30
3	Health	9096	4.31
4	House rent	6625	3.14
5	Electricity	6115	2.90
6	Tax	1026	0.49
7	Water	396	0.19
8	Communication	4057	1.92
9	Fuel	22967	10.88
10	Gas	22711	10.75
11	Recreation	21667	10.26
12	Entertainment	2504	1.19
13	Family function	10619	5.03
14	Festivals	15907	7.53
15	TOTAL	211189	100.00

#### 4. CONCLUSION

As we have conducted survey on Vallanadu and then the average & Percentage analysis were done. In demographic details, we have observed that the average family size of the household is 4. The village has almost equal population of male and female. Then the village has comparatively higher male adult than the female adult, higher male children than the female children. In profession the most of the village people has only primary income for their survival and only few people has secondary income in addition to primary income. In land holding pattern, the village has the highest wetland area for farming and food source. In cropping pattern, the major crop grown in Vallanadu is paddy. In household assets, TV & Bike are the most available household assets. In Household consumption expenditure, the consumption of the cereals is comparatively higher than the pulses. In non-food expenditures, most of their income is spend for the education purpose. Per capita consumption as highest for cereals with 400g

and 177g per day of vegetables. As we have discussed earlier that the cereals consumption is higher than the pulses consumption. So we can encourage the people to put the rice fallow pulses and to increase the pulses production.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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