

IDSJ Working Paper 169

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An Exploratory Analysis**

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Poverty Estimates and Sampling Design of NSSO

An Exploratory Analysis

S. Mohanakumar

The estimates of poverty and unemployment assume significance in India. The national level sample survey of the NSSO is the only reliable source of data for the estimation of poverty and unemployment in India. However, the sample design and coverage of the NSSO had not allowed the estimation of poverty ratio at the district level until the 61st Round in 2004-05. Even the 61st Round of consumer expenditure data do not have adequate sample at the district level to represent all expenditure class available at the state and national level. The monthly consumer expenditure in Kerala is one of the highest for rural and second highest in urban India for 2004-05. An analysis of the household consumer expenditure data collected through an alternative frame work and sampling design showed that there existed significant difference in consumption expenditure and living standard of people across districts in Kerala. The state's average represents the case of dominant districts in Kerala while other districts lie much below the state's average in terms of major indicators of social living. It is argued that the sampling design and coverage of the NSSO in the context of the distress in the country side, should be redefined to enable the estimation at the district level. The estimation of poverty and unemployment rates at the district and below assumes immense significance from policy angle.

Introduction

Poverty is multi-dimensional. Relative poverty measures social living standard of an individual or a social group in relation to the average standard of living of the society in which individual or social grouping live. Absolute poverty or calorie norms based poverty (head count ratio), on the other, thrust on physical quantity of commodities and services an individual is essentially in need of under the given social, economic and weather conditions. Even under a situation of absolute poverty remaining static, relative poverty might increase or diminish depending on income distribution (Marx 1984). Further, poverty at the district level is influenced by population composition (relative size of different social and economic groups), pattern of employment, asset structure, social services available to different social classes and groups, infrastructure facilities such as medical, education and other infrastructural facilities. The National Sample Survey Organisation (NSSO) collects detailed data on consumption expenditure of individuals and households every five year. The NSSO's quinquennial consumption expenditure survey is the primary source for the estimation of the standard of living and poverty level in India. From the policy perspective, the poverty estimation and its regional differences and variation over the survey rounds assume significance. It means the statistics on different aspects of consumption expenditure and poverty estimation should represent the expenditure pattern of the population in general, particularly the backward regions and socially and economically vulnerable sections

in the society. The change and variation over time in the consumption expenditure pattern and poverty level are reflected in the Monthly Per capita Consumer Expenditure (MPCE). A higher MPCE indicates a relatively better standard of living of the people and it influences the policy and programmes of the government with respect to the area under consideration. Kerala is one among the high MPCE reported states in India. The estimated MPCE was Rs 1013 in rural and Rs 1291 for urban area for Kerala in 2004-05. Kerala ranked first among 20 important states in rural area and second after Punjab in the urban area in MPCE in the reference year.

In Kerala, significant difference could be observed across districts in MPCE for 2004-05 (61st Round). Further, the extend of inter-district difference in MPCE is that Thiruvananthapuram, the southern most district in Kerala was one among 15 high MPCE districts in the country while Kannur district in the northern part of the state figured in as one among the 15 lowest MPCE reported districts in India (Choudhuri and Gupta 2009). The study therefore concludes that the state averages of MPCE hides a wide disparity existing within as well as across the same social and economic grouping within a state. The poverty ratio in rural Kerala has declined from 20.47% to 19.3% while inequality measured by *Gini* coefficient in rural Kerala has increased from 0.25 to 0.47 between 50th and 61st round of NSSO (Mishra and Ray 2010). The reported finding states clearly that the average MPCE for the state does not reflect the MPCE of all 14 districts in Kerala, the social classes and groups within districts, relative poverty and inequality in the state of Kerala. It is worth mentioning that the sampling design for the Consumer Expenditure Survey, until its 55th round in 1999-2000, had not allowed estimation of MPCE at the district level (Choudhuri and Gupta 2009). Although the sample size and coverage for the 61st round of Consumer Expenditure Survey permitted a district wise estimation of MPCE for the first time, it was reported that 425 instances in rural and 558 instances in urban India (at the district level) did not have one or more of the MPCE classes used for classification of persons by expenditure class (ibid).

In the light of the above observation, the study analyses the district-wise difference in consumer expenditure and living standard of agricultural labour and cultivator households in Kerala. These two segments of the population in the current context of the agrarian crisis represent more or less a homogeneous group with comparable income levels and standard of living. The study argues that the sampling design of NSSO for a state like Kerala should have wider coverage and large size of samples to enable the estimation of MPCE by districts. A district-wise MPCE and its change over time would suggest a different policy prescription for different social groupings within the state. The study is organised in two sections. The first section describes sample villages and sampling design of the study. In section two, district-wise differences in consumption pattern and living standards of the sample districts are presented, followed by a conclusion.

Section 1

1.1 Sample design and locale of the study

The state of Kerala has been formed amalgamating three distinct administrative entities (Travancore, Cochin and Malabar regions) with substantive differences in population composition, development history, production structure, employment pattern and livelihood¹.

Table 1 shows districts under Travancore (southern Kerala) and Malabar (northern Kerala) regions and population distribution by districts. Roughly, out of 14 districts in Kerala, six districts fall under erstwhile Travancore region and seven districts are under Malabar region. The present district of Ernakulam and a portion of Thrissur district were part of the former princely state of erstwhile Cochin State. Travancore and Cochin were ruled by independent kings while Malabar was under direct British rule. For sample selection, a multi-stage stratified random sampling was used with household as the ultimate unit in the strata. As the historical evolution of the socio-economic formations in those two regions was different, two geographical strata were created – Travancore-Cochin constituted South and Central Kerala and Malabar constituted North Kerala. In each stratum, districts were classed under *Developed* and *Less Developed* regions.

Table 1. Agriculture-dependent population as percentage of total population in Travancore, Malabar and Cochin regions-2001 (in %).

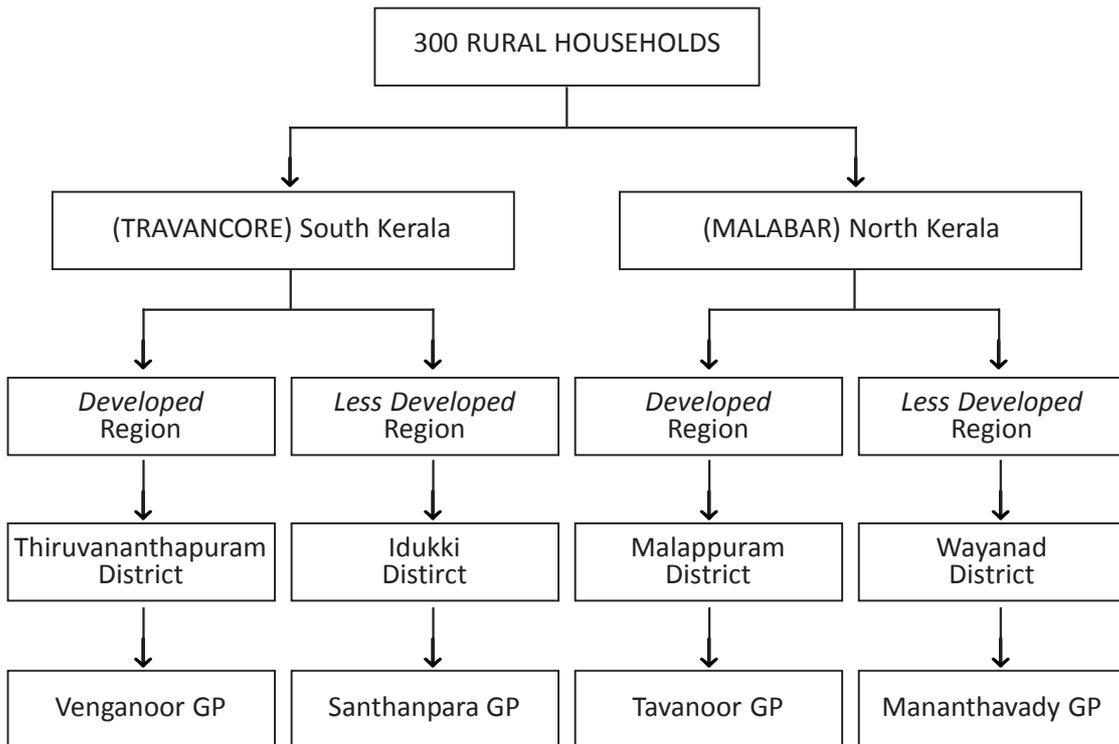
District	Travancore		Malabar		
	% of total population	% of agriculture-dependent population	District	% of total population	% of agriculture-dependent population
Thiruvananthapuram	10.16	9.01	Thrissur	9.35	6.74
Kollam	8.12	7.43	Palakkad	8.22	16.91
Pathanamthitta	3.87	5.11	Malappuram	11.40	8.89
Alapuzha	6.61	5.34	Kozhikode	9.04	3.89
Kottayam	6.14	5.64	Wayanad	2.47	6.12
Idukki	3.54	9.84	Kannur	7.58	6.34
Total	38.44	42.37	Kasargod	3.78	2.58
Cochin State					
Ernakulam	9.73	6.16	Total	51.83	51.47
Grand total	48.21	48.53			

Source: Census of Kerala, 2001.

Daily wages of rural labourers within stratum were used to classify districts into *Developed* and *Less Developed* regions (district) within south and north Kerala. Daily wage of rural labour are considered a better and unbiased indicator of development as a higher wage level in the unorganised sector reflects a developed labour market and an advanced social living standard. It also reflects the paying capacity of employers in the rural sector as well as the relative supply-demand conditions of labour force in the unorganised sector. Above all, a higher wage by itself indicates overall development of not only the labouring class but other social and economic classes in the region as well. In Malabar region (northern Kerala), Malappuram district represented *Developed* region (high wage zone) and Wayanad district is the *Less Developed* region (low wage zone (Table 2). In Travancore-Cochin region (Southern Kerala), Thiruvananthapuram district represented *Developed* region and Idukki district was the *Less Developed* one. From the *Developed* and *Less Developed* regions in each stratum, one Gram Panchayat (GP) was randomly selected as sample. Map 1 shows the location of sample region and chart 1 present sampling frame and procedure adopted for the study.

¹For stratification, the princely state of Cochin has been excluded from the sample frame for three reasons: i) even though Cochin was a princely state like the Travancore, agrarian relations and the evolution and development of the region were, to a great extent, comparable to that of Travancore; ii) Travancore and Malabar together accounted for 94.5 % of the total geographical area of the state; iii) erstwhile state of Cochin, under its jurisdiction covered mostly the present Ernakulam district, which is an industrial town in Kerala and, therefore, agriculture-dependent population is relatively low (Mohanakumar, S. 2007)

Chart 1. Sample Area, Districts and Gram Panchayat (GP)



Map 1. Developed and Less Districts in South and North Kerala



Table 2. Money wage rate of male agricultural labour by district-March 2004

Sl. No.	District	Daily Wage (Rs)
1	Thiruvananthapuram	160
2	Kollam	140
3	Pathanamthitta	130
4	Alapuzha	110
5	Kottayam	130
6	Idukki	90
7	Ernakulam	150
8	Thrissur	150
9	Wayanad	80
10	Palakkad	90
11	Malappuram	150
12	Kozhikode	145
13	Kannur	120
14	Kasargod	100

Note: 1. Wage data was collected from the Department of Economics and Statistics, Government of Kerala. The same data is printed and published in the publication *Agricultural Wages in India* of Ministry of Agriculture, Government of India. The Department of Economics and Statistics, Government of Kerala collects wage data from 20 centres. However, Wayanad district is yet to be included in the list of wage data collection centres. On a primary visit to districts, it was found that wage data in Wayanad district was the lowest in the Malabar region. Secondly, unlike other parts of Kerala, the employer has oligopsonistic power, to a very great extent, because plantation crops such as tea and coffee are cultivated in estates.

Based on the population size of cultivators and agricultural labourers in the main workforce, samples were proportionally distributed between south and north Kerala regions. In the total sample size of 300 households, relative share of agricultural labourers was 69% and cultivator households constituted 31% in 2001. Accordingly, 93 cultivator households and 207 agricultural workers were selected as sample. A total sample size of 93 cultivators and 207 labour households were distributed between south and north regions based on relative shares in cultivators and agricultural workers. From south Kerala, 49 cultivator households and 93 labour households and from north Kerala, 44 cultivator households and 114 labour households were selected. The relative share of cultivator households in Travancore region was 53% and the corresponding share for Malabar regions was 47%. From south Kerala (erstwhile Travancore) Venganoor GP of Thiruvananthapuram district represented *Developed* region and *Santhanpara* GP in Idukki district was selected to represent *Less Developed* region. Similarly, in the north Kerala (erstwhile Malabar) Tavanoor GP in Malappuram district and Mananthavady GP in Wayanad district were selected to represent *Developed* and *Less Developed* regions respectively. Primary survey was commenced in November 2004 and completed in July 2005. For the sake of brevity and clarity of sample regions, a short geographical description and socio-economic profile of sample district and GP are presented below.

1.2. Locale and its Characteristics

1.2.1 Venganoor GP in Thiruvananthapuram District – A *Developed* Region in South Kerala- (High wage Zone in South Kerala)

Venganoor GP is situated on the coast of the Arabian sea in Thiruvananthapuram district and stands adjacent to the coastal village of Vizhinjam. *Venganoor* GP had 15 wards and a total

population of 33372 in 2001. The Panchayat constituencies sampled for the study are serially numbered 3 and 4. Next to farming, fishing is the important occupation in the village. Women workers are engaged in stone-crushing in the construction sector. However, stone crushing is not an attractive employment in terms of wage as the day's hard work would earn not more than Rs 50/- (2004-5). Mostly, women workers are engaged in stone crushing primarily because of the flexibility in the time schedule of the work. The workers are free to start and stop according to their convenience and the wage is paid on piece rate basis. It was reported that they did work for Rs 25 to Rs 30/ a day. Therefore, women who had little other employment avenues and disabled or aged male labourers engaged in such work. Important caste groups engaged in farming in the village are *Nairs, Nadars, Scheduled Castes and Ezhavas*. Important crops grown in the GP are vegetables, plantain and banana in wet land where paddy was grown in the past. Coconut is main crop in dry land (Vnganoor GP, 1996).

1.2.2. Santhanpara GP in Idukki District -Less Developed Region in South Kerala- (Low Wage Zone in South Kerala)

Santhanppara GP is in Idukki district. Work participation rates for male was 58.40% and 28.10% for females against the state averages of 50.40% and 15.30% for males and females respectively in 2001. Idukki district has four Taluks, ten Community Development Blocks and 54 GPs. The sample Panchayat, Santhanppara falls in Udumpamchola taluk and Devikulam Community Development Block. The GP had ten constituencies and 4405 households in 2001. It was found that about 75 % of the total area under cultivation in Santhanppara village is accounted for by cardamom and pepper is the second largest crop (15%) followed by coffee (6 %) (Santhanpara GP, 1996). A considerable size of the population in Santhanpara GP is migrants from nearby districts in Kerala and Tamilnadu. Wage labours work in cardamom plantations, which are mostly owned by absentee landlords and these estates are not registered under Plantation Labour Act, depriving workers from their legitimate rights. Infrastructure in the village is the least developed as compared to other GPs in Idukki district.

1.2.3. Tavanoore GP in Malappuram District- Developed Region in North Kerala- (High Wage Zone in North Kerala)

Tavanoore GP is located in the southern part of Malappuram district and the GP falls under Ponnani Taluk and Ponnani Community Development Block. The geographical area under Tavanoore GP is 42.37 sq.km and the Panchayat is bounded by Bharathapuzha river in the North and West, Anakkara and Vattamkulam GPs in the East and Edappal and Ponnani Municipalities in the South (Tavanoor GP, 1996). Tavanoore GP is a relatively large GPs with 20 GP constituencies. The GP had 9686 households with a total population of 53614 in 2001. The sex ratio in the GP was 1094 females for 1000 males in 2001. The higher sex ratio in favour of females could be attributed to the migration of male population to West Asian countries in search of employment, which is considered to be a characteristic feature particularly of the Muslim-dominated localities in Kerala. The work participation rate in the GP is 49.58%, of which females work participation is as low as 10.12% in 2001. Though the female work participation rate is much lower than the state average, it is higher than the average work participation of the district. In the total population, 16.33% belonged to Scheduled Castes and Scheduled Tribe

does not exist in the GP. In the total workforce, 79.71% are main workers and 20.29% are marginal workers. The relative share of marginal workers among female was as high as 37.61% while the share of marginal workers among males was 16.14%. Agriculture dependent population as a proportion of main worker was 20.80 %, which was on the higher side when compared to the district average of 16.60 %. It is important to note that the agriculture-dependent population in the sample GPs is less than the district average.

1.2.4. Mananthavady GP in Wayanad district - *Less Developed Region (Low Wage Zone in North Kerala)*

Wayanad district is situated in the northern part of Kerala. The district is nestled amidst the majestic mountains of the Western Ghat, at a height of 700 to 2100 metres above sea level on the north-eastern part of the state. Mananthavady GP has 19 wards with a total population of 45477 persons of which 22619 were females in 2001 (Mananthavady GP. 1996). The sex ratio in the GP is in favour of males with 989 females per 1000 males. In the total population, 14.99 % belonged to Scheduled Tribes and 3.61 % to Scheduled Castes. Migrants from Thodupuzha, Pala and Muvattupuzha came to the village in two spells, first in 1930 during the time of the Great Depression and the second spell in the 1940s and 1950s. Migrants constituted mostly cultivators and peasants. Cultivators from the Christian community migrated to the area mostly from Kottayam and Thodupuzha regions and the availability of cheap and abundant land and labour attracted farmers to the area. Great famines in the late 1960s and early 1970s drove down Scheduled Caste people from Tamilnadu to the area particularly to tea, coffee and cardamom estates located in the area. The Scheduled Tribe population in Mananthavady GP accounted for 20.44 % of the total Scheduled Tribe population in Wayanad district. The Work participation rate of the GP was 39.86 % in 2001. The work participation rate for males was 55.80 % and 28.15% for females. The work participation rate for female population was on a higher side when compared to the work participation rate for females in Wayanad district and the state. Prominent sub-castes under Scheduled Tribe population in the Mananthavady GP are *Paniyan, Mullahkurukan, Uralikuruman, Kattunakan, Adiyan* and *Kurichiyen*. In Mananthavady GP, there were 2582 cultivators and 3422 agricultural labourers. As a proportion of main workers, cultivators accounted for 17.26% and agricultural labourers for 22.88%. The total agriculture-dependent population in Mananthavady GP was 40.14 % which was lower than the district average but significantly higher than the state average.

In the gross cropped area, 16.80 % of the land is under wetland (part of which has been converted to paddy fields) and 58 % is dry land. The area under reserve forest constituted 9.40 % and waste land constituted 8.20 %. About 4 % of the land area is under government control. Major crops cultivated in Mananthavady GP are coffee (22.50%), rice (10.24 %), pepper (9.98 %), tea (9.36 %), arecanut (5.64 %), banana (4 %), coconut (4.36 %) and rubber 3.12 %).

Section 2

2. Consumption Expenditure and Living Standard

Household expenditure on food and non-food item is a direct indicator of living standard of the society under reference. Consumption theories inform that income change has a time lag to

reflect on consumption (Ratchet Effect) and the income effect on consumption for social classes are different. The mode of satisfying needs, wants and comforts in life do vary across social and economic groupings in any society. The living standard of small and marginal farmers and agricultural labour households is relatively on a lower stratum within the society and scale and magnitude of the expenditure of the lower stratum change from region to region and within regions across social classes and groups. It implies that living standard of farmer and labour households reflect, to an extent, the general state of development of the society. In order to bring out the difference in the living standard of labour and cultivator households across sample districts in Kerala, daily expenditure on food and non-food item, possession of consumer durables, house type, accessibility to drinking water, availability of toilets within the premise of the household and electricity are considered. The observation from the field survey is compared with the Population Census 2001. Secondary data at the district level is available on the following variables, viz., (i) number of agriculture labour (main and marginal); (ii) number of cultivator (main and marginal); (iii) number of total, main, marginal and non workers; (iv) accessibility to drinking water by source and distance from the place of residence; (v) type of houses by materials used for roofing; and (vi) availability of toilets within the premise. Pearson Correlation coefficient was worked out to understand the association between these variables across districts. It is hypothesised that there is a negative correlation between the number of agricultural dependent households (cultivator and agricultural labour) and the living standard measured in terms of basic amenities in life particularly accessibility to drinking water by source and distance, type of house by roofing materials, and availability of toilet facilities.

2.1. Consumption Expenditure in High Wage Zones (*Developed* Regions in South and North Kerala)

Certain similarities could be observed in the social living and consumption pattern of labour and cultivator households in developed regions of south and north Kerala (Thiruvananthapuram district in the south and Malapuram district in the north) and therefore social living of cultivator and labour households are put together in the narration that follows. Both cultivator and labour households in high wage zone begin the day with bed coffee or black tea, followed by standard breakfast often with traditional food items made of rice which would cost in the market not less than Rs 15 to Rs 20 per person (market price prevailed in 2004-05 period). Between 1pm and 2pm, both cultivator and labour households eat lunch at home invariably with a minimum of two side dishes and a non-vegetarian item, mostly fish. Fish's bought daily for about Rs 15 by labour households and Rs 25 by cultivator households (2004-05 prices). It is for a six member family, comprising father, mother, two children and two relatives (grand parents). In the evening, by 5 pm, milk tea is served at home often with snacks. Male members may, at time, go out to the village centre for their evening tea and snacks or a glass of country liquor. In the night, labour and cultivator households alike eat supper (rice) with fish and one or two vegetarian side dishes. Labour households buy milk for morning tea and for children. In the evening, adult male members pay regular evening visit to the village centre wearing pressed or at the least neatly washed clothes and spend three to four hours on socialisation. For a six member family, a labour household spends between Rs 3000 and Rs 5000 on clothes per annum.

2.1.1. Marriage and Other Social Functions– (High Wage Zones):Developed Regions

For marriage and other special occasions, friends and relatives are invited and the invitation list, in normal course, would be extended to 500 to 1000 persons, depending on the family status. Labour households in *Developed* region in south and north Kerala offer gift either in kind (household utensils, gold) or in cash to the bride or bridegroom. For the marriage of neighbour or friend, about Rs 200 to Rs 500 worth gift would be offered. For close relatives, gift amount would vary between Rs 500 and Rs 1000/-. For female children, a labour household would offer 20 to 30 sovereign worth dowry while a cultivator household would offer between 50 and 100 sovereigns in south Kerala. This is in addition to the share in family property in which girl children stake a larger share (among Hindu communities) in south Kerala. During marriage occasions, scrumptious feast is served to all guests invited and a lunch served per guest would cost not less than Rs 50. In addition to the feast served on the day of the ceremony, a reception is arranged on the marriage eve in the bridegroom's residence. The bride would also throw a party to relatives and friends at his residence in the evening of the marriage day. For Hindu families, the marriage is solemnised at public halls both in Travancore and Malabar; but Christians conduct marriage in the church and the feast is served in public halls; for Muslims the marriage ceremonies are solemnised at bridegroom's residence.

2.2. Consumption Expenditure in Low Wage Zone (Less Developed Regions in South and North Kerala)

Living standard and consumption pattern in low wage zones, *viz.*, Santhanppara GP in Idukki and Mananthavady GP in Wayanad district have several similarities. In Santhanppara, labour and cultivator households are mostly of Tamil origin. Labour households live in hut-type house costing, on an average, Rs 10000. A cultivator's house is not distinctly different from that of the labour. Labour households work in cardamom and coffee plantations, most of which are unregistered plantations and therefore workers are denied of their legitimate rights granted under the Plantation Labour Act. Labour households in Santhanpara GP eat only two meals a day (three meals a day in high wage zones). A breakfast-cum-lunch is eaten around 11 am and a supper in the night. They drink black tea or coffee (a cheap local variety of coffee) in the morning and cook rice in the morning eat for the for the day. Along with rice, *chutney* made of locally grown and available free of cost is prepared. On working days, they cook rice in the morning and carry tiffin containing cooked rice and *chutney* for lunch, which they eat by 11 am. Supper too includes rice and one side dish. On holidays and days without work, rice is cooked around 11 am and the cooked rice is eaten between 1 pm and 2 pm. However, they do not have the practice of taking lunch or breakfast at specific hours daily; the adults particularly women limit their food intake in the day time to one meal. Only on special occasions, they buy non-vegetarian item. On their way back home in the evening after work, labour households purchase vegetables for not more than Rs 5/- for *side dish (a mixed vegetable subgy)*. While shopping, workers drink black tea with snack, costing Rs 5, from the country tea shop. Cultivator households, barring a few estate owners, seldom cook breakfast. Small cultivator households occasionally purchase fish for Rs 10 - Rs 15 and cook one side dishe while labour households very rarely eat non-vegetarian dishes. Labour and cultivator households often wear cheap cloths, which are often bought to their residence for sale by village money lenders-cum vendors.

The cloth vendors sell most of the items required for a household like furniture, electronic goods on credit. They have the multiple advantage of charging interest for the money lend out and profit from sale of items to workers. The cloth vendors procure cheap cloths from Coimbatore market in Tamil Nadu and sell to the people in Santhanppara on credit.

2.2.1. Marriage and other Social Function in Low Wage Zones (*Less Developed Regions*)

Unlike *Developed* regions, for marriage function in a labour household in Santhanppara GP (GP) (south Kerala), about 100 to 200 friends and relatives would be invited to participate and bless the couple. A lunch served to guests in the function would cost Rs 20 per person (2004-05). For cultivator households, number of invited guests for marriage functions could be around 200-300 and the lunch served would be slightly better. Gold offered as dowry (unless the cultivator is an estate owner) does not exceed 10 sovereign. For labour households, dowry is limited to around 5 sovereigns. For the wedding ceremony friends and neighbours of agricultural labour households offer gift to bridegroom worth less than Rs 50 or less. Cultivator households offer gift worth a maximum of Rs 100.

In Mananthavady GP, *Less Developed* regions in north Kerala, *Adivasi* community supply the major chunk of labour power to the farm sector. Employment in Mananthavady GP is mostly seasonal as pepper and coffee are the two major crops grown in dry land. Unlike Santhanppara, public transport system is better developed in this village. Labour households cook rice in the morning and often skip breakfast as in the case of their counterpart in Santhanppara GP in Idukki district. Labour households eat mostly two meals and the rice cooked in the morning is eaten by 11 am and the supper in the night. Labour households usually limit their breakfast to a morning black coffee and they seldom buy milk even for their children. Clothes bought for a six member labour household does not exceed Rs 1500/ per annum (2004-05).

Cultivator households in Mananthavady GP belong primarily to caste groups such as *Nair*, *Ezhavas* and a few *Adivasi* families (Hindu). A few Christian and Muslim households are engaged in farming. The living standard of cultivator households in Mananthavady GP is notably on a lower side as compared to their counterpart in the high wage zone in *Malapuram* district in north Kerala. Nonetheless, unlike cultivator households in the *Less Developed* region in south Kerala, they prepare breakfast, cook lunch with sufficient side dishes and take evening tea and supper. They eat fish almost every day and their daily purchase of fish varied between Rs. 10 and Rs. 20. However, living standard of cultivators in the *Less Developed* region in north Kerala is not comparable to the labour households in the *Developed* region. Even though living standards of cultivators in the low wage zone can not be compared with those in the high wage zone, the social living standard of cultivator household in Mananthavady GP is ahead of cultivator households of *Santhanppara* GP in Idukki district.

2.3. Inter-District Differences in Daily Household by Expenditure in Kerala

To recapitulate, the daily expenditure of a standard six member family in four sample districts (four GPs) of Kerala are presented in Table 3. Households are classified into six expenditure class spending less than Rs 50 per day (lowest expenditure class) to more than Rs 151 per day (highest expenditure class) on food and non-food item. The empirical observations from Table

3 clearly showed that the difference in consumer expenditure across districts in Kerala was statistically significant at 1% and 5% levels (Table 4). Important observations from Table 3 are noted below: (i) In Venganoor and Tavanoor GPs of High wage zones or developed districts in the state, only about 25% of labour households spend less than Rs 50 per days on food and non-food items. On the contrary, 75% of labour households spend less than Rs 50 per day on food and non-food item in Mananthavady GP of Wayanad district in Kerala; (ii) not even a single labour household in Mananthavady GP was reported to have spent more than Rs 101 per day on food while 22% labour households spent more than Rs 101 per day on food in Tavanoor GP of Malalpuram district in north Kerala; (iii) 11.76% of cultivator household reported to have spent more than Rs 126 daily on food in Venganoor GP of Thiruvananthapuram district while 32.25% of farmer households in Tavanoor GP had spent more than Rs 126 daily on food: (iv) there exists significant statistical difference in the consumption expenditure between agricultural labour and cultivator households.

Table 3. Percentage Distribution of Labour and Cultivator households by Expenditure class

Daily Expenditure class (Rs)	South Kerala				North Kerala			
	Developed Region Venganoor GP (High Wage Zone)		Less Developed Region Santhanpara GP (Low Wage Zone)		Developed Region Tavanoor GP (High Wage Zone)		Less Developed Region Mananthavadi GP (Low Wage Zone)	
	Labour HH	Cultivator HH	Labour HH	Cultivator HH	Labour HH	Cultivator HH	Labour HH	Cultivator HH
d" 50	26.09	5.88	45.28	26.47	23.08	12.90	75	25.00
51-75	45.65	41.18	30.19	35.29	23.08	9.68	13	22.50
76-100	13.04	41.18	24.53	20.59	32.05	45.16	12	35.00
101-125	8.70	0	0	0	1.28	0	0	12.50
126-150	6.52	5.88	0	11.79	17.95	19.35	0	2.50
> 151	0	5.88	0	5.88	2.56	12.90	0	2.50
Total	100	100	100	100	100	100	100	100

Note: HH – Households
Source: Primary survey

Table 4. Standard Error of the Proportions of Expenditure of Classes Between Developed and Less Developed Regions in Kerala

Expenditure class	South Kerala		North Kerala	
	Difference between cultivators in low and high wage regions	Difference between labourers in low and high wage regions	Difference between cultivators in low and high wage regions	Difference between labourers a in low and high wage regions
d" 50	0.130	1.724**	1.455	1.988**
51-75	1.720**	3.042**	1.97**	1.986**
76-100	1.590*	0.814	1.13	2.772*
101-125	0.171	0.492	0.180	0.174
126-150	0.156	0.334	0.583	1.517*
> 151	0.164	0.138	0.179	0.065

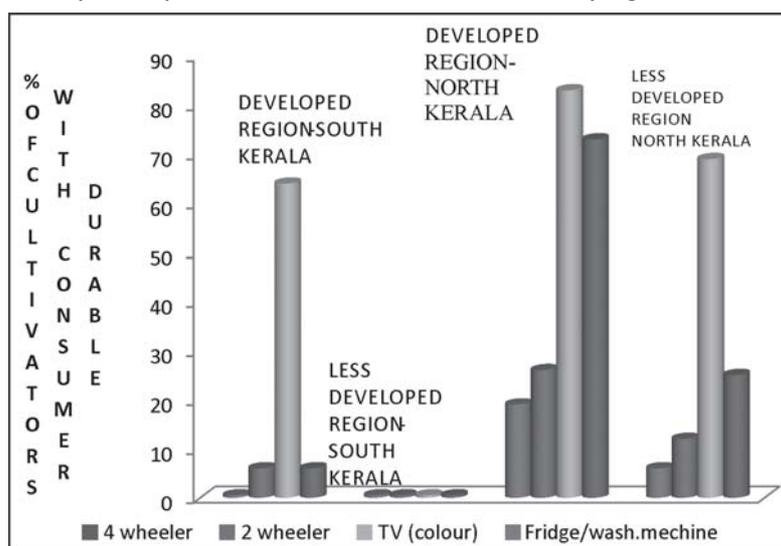
Note: ** significance at 1 % level
*significance at 5 % level

Source: Based on Table 3.

2.4. Possession of consumer durables

Observations made in Tables 3 and 4 is further verified with the possession of consumer durables, basic amenities in life and housing pattern of the sample population. For comparison, six type of consumer durables were considered. In the *Developed* region in south Kerala, labour and cultivator households possessed colour television and refrigerators. Conversely, in the *Less Developed* region in south Kerala, neither cultivator nor did labour households, report to have possessed any of such consumer durable items. As observed in the case of consumer expenditure, both cultivator and labour households had possessed all six items listed for the study, indicating significant difference across districts in north Kerala. In the *Less Developed* north Kerala, (Mananthavady), 19% of the cultivator households possessed vehicles, 67 % of them owned colour television and 25% of cultivator households had refrigerators and washing machines. Labour households belonged mostly to the *Adivasi* community and they did not have any of such comforts in life. Among labour households, few of those who belonged to upper castes (*Nairs* and *Ezhavas*) owned televisions sets (Graphs 1&2).

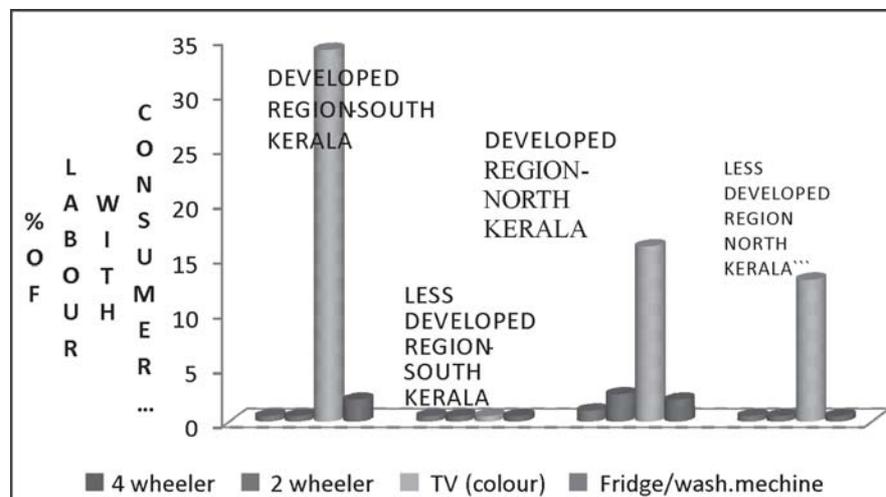
Graph 1.Comparion of Cultivators with Consumer Durable by Regions in Kerala



2.5. Basic Amenities

The living standard of a society or people living in a geographical area can be assessed on the basis of the accessibility to the necessities of life. The necessities of life are: (i) accessibility to drinking water; (ii) electricity; and (iii) toilet within house premise and (iv) pucca house. Table 5 shows the inter-district differences in the availability of the above mentioned necessities in life. Following are the important observations from Table 5. (i) more than 30% of cultivator households in Idukki district (Santhanpara GP) do not have accessibility to drinking water, about 70% of the cultivators households in the district do not have electricity and more than 40% do not have toilet within the house premise. (ii) Significant difference could be observed in the availability of basic amenities of life between agriculture labour and cultivator households in

Graph 2. Comparison of Consumer Durable with Labour Households by Regions in Kerala



three out of four sample Gram Panchayats; (iii) inter-district variation in the availability of basic amenities of life among labour households across districts do vary considerably. For instance, only 9% of labour households have electrified house in Sanathanpara GP and 22% of households have accessibility to drinking water. Conversely, all labour households in Venganoor GP (Thiruvananthapuram district) have drinking water facility near the place of residence and 93% of households have toilet within house premise.

Table 5 Percentage Distribution of Cultivator and Labour Households with Basic Facilities

Item	South Kerala				North Kerala			
	Developed Region (Venganoor GP)		Less Developed Region (Santhanpara GP)		Developed Region		Less Developed Region (Mananthavadi GP)	
	Labour HH	Cultivator HH	Labour HH	Cultivator HH	Labour HH	Cultivator HH	Labour HH	Cultivatorr HH
Drinking water	100	100	22	67	42	100	51	100
Electricity	91	100	9	29	67	100	75	100
Toilet	93	100	32	58	91	100	60	100

Source: Primary survey

2.6. Housing

Type of housing is yet another indicator of social standard of living. It reflects the asset base of the population under consideration. Population Census furnishes information by type of house based on the material used for roofing. Broadly, Census categorises house into Katcha and Pucca. Table 6 gives the type of house by households in four sample districts and GPs. A household with a Pucca house is rated to have better income and living standard as compared to Katcha house. Since the introduction of People's Planning in Kerala, local bodies in the state have constructed Pucca house for BPL families and therefore house type by roofing is not an adequate indicator of the living standard. In this context, cost of construction is a more exhaustive index of house classification than the conventional census classification of Pucca and Kutcha division.

However, for comparison, house is classified into five types: (i) double storied building with concrete roofing, (ii) tiled house, (iii) thatched house, (iv) house with asbestos sheet, and (v) huts. In Thiruvananthapuram district (Vengannor GP), 59% of cultivator households live in concrete building (Rs 8-10 lakh) and another 23% have *pucca* tiled house (Rs 3-5 lakh). In Malappuram district, 76% of cultivators live in concrete building with a cost of construction of Rs 10-15 lakh with granite or marble flooring, strong ground walls and attached bath rooms. On the contrary, 73% of cultivator households live in tiled house with cement flooring which cost not more than Rs 1 lakh in Idukki district (Santhanpara GP). Moreover, 96% labour households in Santhanpara GP, live in hut type house costing not more than Rs 20,000. In Malappuram district 79% of labour households live in comfortable conditions with owned house either with concrete or tiled roofing. It is important to note that there is no sheet roofed or GP constructed house for the BPL families in Tavanoor GP for labour households in the sample. Conversely, 31% of the labour household live in *Panchayat house* constructed pucca house in Santhanpara GP. In brief, a close perusal of the type of house by cultivator and labour households shows considerable difference in the living standard, measured in terms of the type of house under possession, across districts as well as social classes within districts.

Table 6. Percentage Distribution of Farmers and Labourers by Type of Houses

Expenditure class	South Kerala				North Kerala			
	Developed Region (Vengannor GP) Thiruvananthapuram District		Less Developed Region (Santhanpara GP) Idduki District		Developed Region (Tavanoor GP) Malappuram District		Less Developed Region (Santhanpara GP) Wayanad District	
	Labour HH	Cultivator HH	Labour HH	Cultivator HH	Labour HH	Cultivator HH	Labour HH	Cultivator HH
Terrace	19	59	4	23	20	76	9	56
Tiles	22	23	96	73	59	24	24	32
Thatched	20	18	Nil	4	21	Nil	Nil	Nil
Hut	9	Nil	Nil	Nil	Nil	Nil	21	6
Sheet	21	Nil	Nil	Nil	nil	Nil	15	6
Panchayat house	9	Nil	Nil	Nil	Nil	Nil	31	Nil
Total	100	100	100	100	100	100	100	100

Note: HH-Household
Source: Primary survey

In Kerala, only 5.59% of the house is not electrified. But the proportion of house not electrified was as high as 19.17% in Wayanad district. Moreover, seven out of 14 districts in the state have reported a higher proportion of non-electrified houses as compared to the State's average. It was reported that 4.80% of households do not have toilet facilities within the premise of the house while more than 10% of the households in Idukki and Wayanad districts do not have toilet facilities within their house premise. Households without accessibility to drinking water or water source are away from house premise for certain districts in the state are more than double of the state's average. The Coefficient of variation of development indicators in Table 7 indicated that inter-district variation is significant. In brief, average value for the aforesaid variables represent the case of only half of the districts in the state and the observation hold good for the MPCE.

Table 7. Households by Development indicators (% share)

District	% of Non-Electrified House	Households Without Toilet within the House premise	Households without Drinking water source (away from House Premise)	% of cultivators in total Workers	% of Agricultural Labour in total Workers	% of <i>kacha</i> House in total House
Kerala	5.59	4.80	1.00	7.04	15.76	3.35
Kasargod	11.24	8.22	1.92	4.99	10.05	3.00
Kannur	5.90	2.35	0.76	5.99	13.25	0.93
Wayanad	19.17	8.22	0.75	16.77	30.50	4.55
Kozhikode	6.17	2.19	0.96	3.47	8.23	4.82
Malappuram	5.74	2.65	1.03	6.56	17.81	2.56
Palakkad	6.48	10.21	0.63	9.06	33.56	4.23
Thrissur	2.99	2.15	0.42	5.31	11.40	3.76
Ernakulam	2.58	2.15	0.32	5.25	7.97	1.19
Idukki	11.60	10.87	1.93	21.14	27.07	3.09
Kottayam	3.42	3.40	2.08	7.82	13.22	1.46
Alapuzha	3.85	7.07	1.66	3.81	13.70	2.82
Pathanamthitta	5.52	6.09	1.47	13.52	19.86	1.92
Kollam	4.90	5.51	0.90	6.83	14.69	3.16
Thiruvananthapuram	5.42	5.79	0.88	3.67	12.95	7.53
Standard Deviation	4.45	3.09	0.58	5.328	8.157	1.733
Coefficient of Variation (Ratio)	0.80	0.64	0.58	0.757	0.518	0.518

Source: Population Census 2001.

Table 8. Pearson Correlation Coefficient for Development Indicators by districts in Kerala

Variables	% of non-electrified house	% of households without toilet	% of households without drinking water	% of households live under <i>Katcha</i> house	% of Cultivator Households	% of Agriculture Labour Households
	V1	V2	V3	V4	V5	V6
V1	1.00	0.592(*)	0.150	0.257	0.649(*)	0.583(*)
V2	0.592(*)	1.00	0.389	0.278	0.610(*)	0.733(**)
V3	0.150	0.389	1.00	-0.212	0.271	0.006
V4	0.649(*)	0.610(*)	0.271	1.00	0.755(**)	0.755(**)
V5	0.583(*)	0.733(**)	0.006	-0.080	1.00	0.170
V6	0.257	0.278	-0.212	0.562	-0.080	1.00

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

In conventional economic theory, a higher ratio of farm dependent population in the total workforce is indicative of the relative backwardness of a geographical entity. It is found that the farm dependent population in Kerala (cultivator and agricultural labour) is 22% while

agricultural labour and cultivators together constituted more than 45% of the total workforce in wayanad and Idukki districts in the state. It is logical to presume that there is a positive association between the size of the farm dependent population and the level of social development. The farm dependent population is positively correlated with the indicators of social backwardness, viz., non-electrified house, lack of accessibility to drinking water, proportion of Kacha house in the total and households without toilet in house premises. An important observation from Table 8 is that there is a positive and significant association between the farm dependent population (cultivator and agricultural labour households) and percentage of households without toilet, drinking water, live in *Katcha* and non-electrified house. The findings in the correlation table confirm the observation of the primary survey that there is a significant difference in the living standard of agricultural labour and cultivator households across districts in Kerala.

Conclusion

Reliable statistics on the level and magnitude of poverty and unemployment are crucial inputs from a policy perspective, especially in a country like India. Consumer Expenditure and Employment and Unemployment Surveys of NSSO are major sources of secondary data widely used for the estimation of poverty and unemployment in the country. The sampling design of the Consumer Expenditure Survey of the NSSO allowed the estimation of MPCE only at the state level until its 61st Round in 2004-05. The sample size is too small to work out MPCE for all expenditure class at the district level even with 61st Round of NSSO data. It is presumed that the state average of MPCE hold good for the entire state. A detailed analysis of primary data in four districts in Kerala in 2004-05 showed that there were significant difference in the living standard measured by consumer expenditure on food and non-food item, possession of consumer durables and basic amenities in life. It was also noticed that the living standard of different social class within districts did vary considerably. For instance, it was found that more than 75% of labour households of a six member family in a GP in Wayanad district could spend only Rs 50 or less per day for their food and non-food expenditure together while labour households in another GP (Tavanoor GP) in Malappuram district reported that less than 25% of labour households in the expenditure class of Rs 50 or less. More or less the same difference could be found in the comparison in daily consumer expenditure of GPs from Thiruvananthapuram and Idduki districts. The observed contrast has come out more stunningly in the quality of life measured in terms of basic amenities of life such as accessibility to drinking water, electricity, toilet facilities and in the possession of consumer durables including colour television, washing machine, refrigerator and possession of vehicle. To the extent that consumer expenditure survey leave population groups from its sample frame, poverty ratios and regional inequality estimated from Consumer Expenditure Surveys become less relevant, leaving policies and programme ineffective or leave the target group untouched. It underlines the importance of an overhauling process of the sampling design of NSSO consumer expenditure surveys to give wider representation to the diversified nature of social and economic groupings in India.

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