

Consumption Pattern and Nutrition Based Poverty Income: Actual Scenario of Poverty for Some Rural Areas of West Bengal

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Abstract

The latest estimation of poverty line as done by Rangarajan committee (2014), was based on 68th round unit level NSSO data on consumption expenditure which was applicable for whole nation. Then the estimation of state specific poverty line as well as poverty line for rural and urban segments has been done by suitably adjusting the national level poverty line with price differentials. The committee ignored the impact of particular locations with different distances from a metropolitan city having different occupational structures, on consumption pattern. They have ignored the facts that consumption pattern differ not only among states but also within a state among the urban areas according to their distances from metropolitan cities, and also among the rural areas according to their distances from district town. This study is concerned with fresh estimation of poverty line income on the basis of consumption pattern and minimum nutritional requirement of people living in different urban locations within a state. Our contention is that pattern of consumption changes not only over time (Utsa Patnaik,2010), but also among metropolitan cities as well as urban areas and rural areas in a particular States, accordingly the poverty line should also be different. To examine the validity of our presumption, in this study we have chosen three rural areas surrounded by district towns of North 24 Paragana , Barasat, West Bengal and estimated the poverty lines of these locations, on the basis of respective consumption baskets of each rural area, separately. We have seen there is significant difference in consumption pattern and poverty line income level of these location.

JEL Codes: I32, I3

Keywords: Poverty measurement, India, Adult equivalent scale.

Introduction:

This study is concerned with the problem of estimation of poverty line in some rural context. Vast literature have grown regarding estimation of poverty line mainly in the context of India. The latest Official Poverty line is estimated by Rangarajan Committee (2014). The Rangarajan committee have estimated poverty line for the country and for different states, disaggregated by 'rural' and 'urban' as two separate units, using the same food basket applicable for India as a whole suitably changing with price relatives. Further in finding average consumption level required for minimum calorie Rangarajan committee did not consider the adult male equivalent scale. Our contention is that consumption pattern widely differs not only between the rural and urban areas but also among different kinds of urban areas with different characteristics and different rural areas with different characteristics. We hold further, people living in different urban areas are different with regard to life styles and consumption behaviour and calorie consumption which is sometimes greatly influenced by the life style of people in metropolitan cities and the profession with which they are associated. On the other hand, people living in different rural areas are different with regard to life styles and consumption behaviour and calorie consumption which is sometimes greatly influenced by the life style of people in district town. That is why distance from a district town is an important factor in influencing consumption pattern.

In this paper we confine our analysis to the study of consumption behaviour and calorie intake of people in the three rural areas of the district of North 24 Parganas of West Bengal with different distances from district town Barasat,

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namely Amdanga(5km), Gaighata(35), and Sandeshkhali(60km). In studying behaviour of consumption pattern and calorie consumption, we have taken distance and nature of occupation as two independent variables, apart from income groups to which these different groups of people belong. We have examined first relative importance of income and distances from district town and secondly importance of nature of occupation with which the majority of population are involved compared to that of distances, with income remaining fixed.

The last official poverty line estimated by Rangarajan Committee is useful for taking national level and state level development programme. As mentioned above the consumption pattern is influenced by many factors, so the consumption basket of small area would be different from the consumption basket for country as a whole or the State and national level as well. For getting policy prescription at the local level for decentralised planning purpose, a revised poverty line is required. But using poverty line estimate applicable to state as a whole, for drawing policy prescription for a metropolitan city and district township, or rural areas is misleading. However not only we have used relevant food consumption basket for each rural area; to get a more accurate, result we have also considered Adult Male Equivalent Scale in deriving average consumption of a member of a family that is required to generate poverty level calorie.

A Brief Overview of Some of the Literature on the Subject

Dandeker and Rath introduced the procedure of poverty measurement on the basis of minimum calorie needs of a person. The poverty measurement based on calorie consumption was started in 1971 by Dandeker and Rath. Pranab Bardhan(1973) defined a minimum level of living based on a defined consumption basket to achieve a minimum daily diet under Indian conditions as suggested by ICMR. Planning commission had been using this poverty line incorporating change due to changing inflation rate over time. But food habit of people changes over time (Utsa Patnaik,2010). People like to eat high value food in place of cereals, in greater proportion (Hanumanth Rao,2000). Radhakrishna & Ravi & K.N.Murty (epw 1998) –observed that change in taste & preference is the main cause of declining demand for food-grains. Dreze and Deaton (epw 2009) observed for Indian people that composition of food basket was changing away from cereals in favour of high value food items; this trend, he observed, was accompanied with falling calorie intake levels of Indian people. It was noticed that calorie intake was falling mainly due to falling consumption of cereals. Though Dreze and Deaton explained this phenomenon primarily as the result of rise in relative prices of some food items, more important appeared to be the observation that with falling consumption of cereals and rising consumption of high value items, nutrition level of Indian people was falling. Dreze and Deaton surmised that this change in composition of food intake perhaps had led to increase the proportion of people who were unable to obtain minimum required level of nutrition.

This trend in consumption pattern was noticed much earlier by (Behrman and Deolalikar(1987), Rath,Sen, et al). They observed poor people with marginal increase in income prefer to substitute high value food in place of cereals but this substitution does not ensure intake of minimum required calories. In this context Kumer, Mallik and Holla questioned the relevance of official poverty line under the condition of rising consumption deprivation of essential food items.

The latest estimation of poverty line was done by Rangarajan Committee (June 2012) on the basis of NSSO 68th round data taking ICMR norm 2090kcal and 2155 kcal per person per day for urban and rural areas, respectively, as minimum calorie requirement. They also incorporated some basic non food items, clothing, house rent, conveyance and education. The Committee had not used any adult equivalent scale to estimate per capita expenditure. It is not clear from their methodology whether they included home grown product and their imputed values or not. The committee submitted its report on June 6, 2014.*? The committee used the national

level poverty line by adjusting with suitable change in relative prices of consumer goods, to arrive at measurement of poverty at the state level. By using the similar procedure the poverty line was estimated for state-level rural and urban poverty lines.

The debates on relation between poverty estimates based on official poverty line and extent of poverty measured on the basis of proportion of people failing to obtain the recommended minimum calories with actual composition of food basket, bring out the need for fresh formulation of poverty line itself. It is against the background of the current debate that we undertake our study on consumption pattern, nutrition and poverty of four metropolitan cities of India and three district towns of West Bengal.

Objective of the Study

The latest estimation of poverty line was done by Rangarajan Committee (June 2012) on the basis of NSSO 68th round data taking ICMR norm. But in this poverty line estimation the Committee did not use any Adult male Equivalent Scale to estimate per capita expenditure. The committee used the national level poverty line by adjusting with suitable change in relative prices of consumer goods, to arrive at measurement of poverty at the state level. By using the similar procedure the poverty line was estimated for state-level rural and urban poverty lines.

On this background our contention is that poverty lines may differ not only between urban and rural areas but also among urban areas itself and rural areas itself.

Our main objectives are to analyze consumption patterns of people some specific locations. To examine the factors on which consumption pattern depends. To estimate nutritional poverty line after taking into account AMES while estimating per capita consumption and nutritional level of a household.

Methodology

In this paper we have used latest available National Sample Survey unit level data of 68th Round (2011-12) on consumption expenditure to estimate poverty line, incorporating impact of location wise characteristics and impact of nature of occupation with which majority of people in a place are mostly involved .

For conducting this study, we have taken consumption data for three rural areas of North 24 Paragana a district of West Bengal. These rural areas are selected by using random number table centring Barsat (District Town of North 24 Paragana) by radius of 5 km (Amdanga), 35 km (Gaighata) and 60 km (Sandeshkhali).

After choosing locations we have broken the unit level data for each location in 20 fractiles. The consumption basket which generates the minimum suggested calorie level (as per ICMR), is identified. It is converted to money value and is taken as the poverty income for that location. For estimating minimum requirement of other non food consumer items and their total money values we have taken the median fractile (45-50%) values of clothing expenses, rent, conveyance and education expenses, which are treated as the normative requirements (Rangarajan Committee) of the basic non-food expenses. Monthly per capita expenditure for 'other non food' items except the essential non food items (clothing, housing, mobility and education), have been taken from the fractile which fulfils the minimum nutritional norms. All these are the part of poverty line income.

To examine the difference in consumption pattern among people under different expenditure groups the location-wise data have been broken in five expenditure classes. We have used the poverty line income derived by Rangarajan committee i.e. Rs. 934 for rural areas of West Bengal, as the upper limit of bottom expenditure classes. The bottom expenditure class is the class of poor people as per Rangarajan Committee estimate of poverty

line. We have also considered the minimum calorie intake following ICMR norms for estimation of poverty line i.e. 2155 kcal for urban areas.

We have taken four occupation types: Agriculture, Self- Employed, Regular Wage/ Salaried, Casual Labour in Agriculture, Casual Labour in non-Agriculture and 'others'. As per NSSO the occupation type 'others' means households having no source of income

Adult equivalent Scale

Additionally we have incorporated Adult Male Equivalent Scale in estimating average minimum consumption required by a person to fulfil nutrition. To calculate Adult Male Equivalent Scale we have taken total food expenditure as dependent variable of a household and total expenditure and number of adult male persons, number of adult female persons, number of male children and number of female children in a household and square of household size as independent variables. {Kumer , Holla and Guha (EPW,July 26,2008)}.

$$y = a + bx + cz + dm + en + ft + gt^2 \dots\dots\dots(i)$$

Where y absolute value of food expenditure of a household (dependent variable) and as independent variable, x (adult male in the family), z (adult female in the family), m (adult male children in the family), n (female children in the family)and t(total expenditure of the household).

Linear Regression

To test the impact of change in location, change in expenditure class and occupation type, on the calorie consumption from cereals , we have run a simple regression (equation-ii) with average calorie consumption from cereals as dependent variable(y) and location (), expenditure class () and occupation type () as independent variables.

$$\dots\dots\dots(ii)$$

where, i=1(1)4, for metropolitan cities and 1(1)3 for district towns, j=1(1)5 and k=1(1)2, for both metropolitan cities and district towns.

Two-way-ANOVA

To analyse the impact of location and income (per capita consumption expenditure as proxy to income) on calorie intake we have run two-way ANOVA using average calorie intake as dependent variable. We have also used 2-way-Anova to examine the statistically significant difference for different locations and occupation types on calorie consumption for each expenditure class. Here average calorie consumption per capita per day has been used as dependent variable and location and occupation type has been used as independent variables.

Observation

On this background, we analyze in this section detail feature of an urban and three rural locations of the district of North 24 Pargana. The locations are namely Amdanga (5km), Gaighata(35km), and Sandeshkhali (60km) (rural areas). We observe detail about all the sample households. In the second subsection (4.1), we observe the consumption pattern or food habits of people living in these locations. In the third subsection (4.2), we observe detailed occupational structure of these locations and analyze the relation between calorie consumption and occupational structure.

We also analyze a new composition of a family member by using AMES. We measure the diversity of food baskets for different locations and examine the influencing factors. We estimate the poverty line based on the composition of the food basket for each location.

Lastly we estimate fresh poverty lines for these locations considering composition of food basket.

Table -1.0 shows that per capita average monthly expenditure of the adjacent village Amdanga is higher than other villages. We observe a decreasing trend of per capita average expenditure with movement from nearest village to farthest village. The nearest village Amdanga has more population density.

Table-1.0 Sampling distribution of household respondents According to Average Monthly per Capita expenditure On The Basis of Estimated Adult Male Equivalent Number of Family Member for all locations

| Rural Area | Sample/surveyed (no. of household) | Estimated number of Household | Estimated Population | Average Monthly Per Capita Expenditure (MPCE) |
|--------------|------------------------------------|-------------------------------|----------------------|---|
| Amdanga | 87 | 184390 | 805203 | 1962.0 |
| Gaighata | 79 | 183074 | 785522 | 1833.0 |
| Sandeshkhali | 181 | 382151 | 1697161 | 1720.1 |

Authors Calculation * MPCE average monthly per capita expenditure
In order to consider per capita food expenditure we have converted the number of family members into adult equivalent male members and estimated all per capita household expenditures into adult equivalent male members and estimated all per capita household expenditures on the basis of estimated adult male equivalent scale.

Table -1.1 Adult Male Equivalence for consumption

| Location | Adult Female | Child Male | Child Female |
|--------------|--------------|------------|--------------|
| Amdanga | 0.42 | 0.93 | 0.65 |
| Gaighata | 0.29 | 0.76 | 0.28 |
| Sandeshkhali | 0.78 | 0.28 | 0.21 |

Authors Calculation

Table 1.1a Actual Household size and AMES household size

| City/Urban Area | Avg. HH Size | Avg. Adult male equivalent HH Size |
|-----------------|--------------|------------------------------------|
| Amdanga | 4.5 | 3.5 |
| Gaighata | 3.9 | 3.9 |
| Sandeshkhali | 4.4 | 3.6 |

Authors Calculation

The actual household size is different from the Adult Male Equivalent household size. From table 1.1, it is clear that different locations have different types of food consumption for female, male, and female children. Food consumption by adult females in Sandeshkhali is close to adult males, but in the other locations, Amdanga and Gaighata, food consumption by Adult Females are very low. Especially in, food consumption by an adult female is very low compare to an adult male. Food consumption by a male child is better than the food consumption by a female child for all the locations. The situation of food consumption of male children in Fakirpur which is very adjacent to the town area is better than the other areas.

Section 4.1 consumption patterns and calorie intake of people of different

In this section, we will see in detail food habits of people and how consumption of different food items differs with different rural areas for different expenditure classes.

rural areas of North
24 Paragana

Table-1.2 Proportion of food and Non-Food Expenditure across Location out of Total Expenditure

| Name of rural areas | Proportion of Food Expenditure | Proportion of Non-Food Expenditure |
|---------------------|--------------------------------|------------------------------------|
| Amdanga | 54.0 | 46.0 |
| Gaighata | 51.3 | 48.7 |
| Sandeshkhali | 60.2 | 39.8 |

Author Calculation

Authors Calculation

Table-1.3 Proportion of food and Non-Food Expenditure across Location out of Total Expenditure

| Amdanga | | | Gaighata | | Sandeshkhali | |
|----------------------------|--------------------------------|------------------------------------|--------------------------------|------------------------------------|--------------------------------|------------------------------------|
| Expenditure Class (in Rs.) | Proportion of Food Expenditure | Proportion of Non-Food Expenditure | Proportion of Food Expenditure | Proportion of Non-Food Expenditure | Proportion of Food Expenditure | Proportion of Non-Food Expenditure |
| <934 | 57.9 | 42.1 | 70.2 | 29.8 | 65.0 | 35.0 |
| <-2000 | 59.0 | 41.0 | 54.7 | 45.3 | 62.7 | 37.3 |
| 2000-3000 | 52.0 | 48.0 | 49.2 | 50.8 | 57.3 | 42.7 |
| 3000-5000 | 41.2 | 58.8 | 43.6 | 56.4 | 54.2 | 45.8 |
| >5000 | 35.0 | 65.0 | 21.7 | 78.3 | 28.7 | 71.3 |
| Overall | 54.0 | 46.0 | 51.3 | 48.7 | 60.2 | 39.8 |

Author Calculation

From table 1.3 we observe that the proportions of food gradually decrease with higher expenditure classes irrespective of locations. In the case of non-food people spend more with higher expenditure classes. Rural people spend more on food rather than non-food except top expenditure class. People of rural areas spend less on non-food consumption.

Table-1.4 Location Wise average calorie Intake per day per capita

| Expenditure class | Amdanga | Gaighata | Sandeshkhali |
|-------------------|-------------|----------|--------------|
| <934 | 830 | 2035 | 1817 |
| 934-2000 | 2069 | 1755 | 2087 |
| 12000-3000 | 2962 | 2323 | 2701 |
| 3000-5000 | 3345 | 2661 | 2978 |
| >5000 | 3625 | 2560 | 2881 |
| Overall | 2480 | 2146 | 2310 |

Author Calculation

From table 1.4 it is clear that the minimum nutritional norm for Calorie consumption 2155 kilo calorie for rural areas fulfill by the third expenditure classes irrespective of locations of North 24 Paragana District. We take the first three expenditure classes first, as we expect most poor people to fall within these classes. Calorie consumption has an increasing trend with

higher expenditure classes irrespective of location. Per capita average calorie consumption of the bottom three expenditure classes is lower than the per capita average calorie consumption by the top two expenditure classes. We observe Calorie consumption increase almost all expenditure classes except second bottom expenditure classes of Gaighata.

Table-1.5 Monthly per Capita Expenditure (MPCE) Class wise Average Proportion of per capita per day Calorie Intake in total per day per capita calorie intake by Different Food groups for Amdanga

| MPCE | Cereals | Pulse s | Milk & Milk Products | Egg_fish_meat | Vegetable s | Fruits | Fruits (Dry) | Others* |
|----------------|--------------|-------------|----------------------|---------------|--------------|-------------|--------------|--------------|
| <934 | 60.18 | 1.16 | 0.00 | 3.11 | 11.40 | 0.24 | 0.00 | 23.92 |
| 934-2000 | 63.95 | 2.31 | 1.34 | 2.78 | 10.10 | 1.00 | 0.00 | 18.51 |
| 2000-3000 | 63.99 | 2.36 | 1.74 | 3.43 | 10.58 | 1.33 | 0.04 | 16.52 |
| 3000-5000 | 57.86 | 3.91 | 2.99 | 3.26 | 9.64 | 2.40 | 0.25 | 19.69 |
| >5000 | 49.19 | 4.26 | 5.55 | 3.68 | 9.77 | 3.67 | 0.09 | 23.80 |
| Overall | 62.30 | 2.62 | 1.85 | 3.02 | 10.13 | 1.39 | 0.04 | 18.64 |

Authors Calculation *(salt, oil, spices, beverages, processed food, pan etc)

In Amdanga the extreme bottom expenditure class consumes a minimal amount of pulses and egg, meat and fish but they cannot consume milk and milk products and any kind of dry fruits. The large amount (compare to calories coming from other food items) of calorie consumption of bottom three expenditure classes come from cereals. They consume very less amount of other high valued food except vegetables. However, the top two expenditure classes' consumption of different food items is greater than these bottom expenditure classes.

Table-1.6 Monthly per Capita Expenditure (MPCE) Class wise Average Proportion of per capita per day Calorie Intake in total per day per capita calorie intake by Different Food groups for Gaighata

| MPCE | Cereals | Pulse s | Milk&Milk Products | Egg_fish_meat | Vegetable s | Fruits | Fruits (Dry) | Others* |
|----------------|--------------|-------------|--------------------|---------------|-------------|-------------|--------------|--------------|
| <934 | 76.84 | 1.57 | 0.15 | 1.66 | 7.31 | 0.27 | 0.00 | 12.19 |
| 934-2000 | 65.08 | 2.47 | 1.13 | 2.61 | 9.14 | 0.87 | 0.03 | 18.67 |
| 2000-3000 | 63.11 | 2.91 | 3.03 | 3.14 | 8.13 | 1.82 | 0.19 | 17.68 |
| 3000-5000 | 57.91 | 3.27 | 4.86 | 3.63 | 8.07 | 2.20 | 0.50 | 19.56 |
| >5000 | 45.60 | 2.32 | 12.41 | 3.56 | 9.44 | 1.50 | 0.48 | 24.69 |
| Overall | 63.50 | 2.71 | 2.57 | 2.93 | 8.49 | 1.41 | 0.18 | 18.20 |

Authors Calculation *(salt, oil, spices, beverages, processed food, pan etc)

In Gaighata proportion of calorie consumption from cereals is higher than the cereals consumption of the people of Amdanga the other high value food items is also very less than Amdanga except meat fish and egg. Proportion of calorie consumption from fruits and dry fruits is very negligible by all the expenditure classes and is lower than the calorie consumption of people of Amdanga.

Table-1.7 Monthly per Capita Expenditure (MPCE) Class wise Average Proportion of per capita per day Calorie Intake in total per day per capita calorie intake by Different Food groups for Sandeshkhali

| MPCE | Cereals | Pulse s | Milk & Milk Products | Egg_fish_meat | Vegetables | Fruits | Fruits (Dry) | Other |
|----------------|--------------|-------------|----------------------|---------------|-------------|-------------|--------------|-------------|
| <934 | 71.38 | 0.97 | 0.00 | 2.36 | 9.07 | 0.24 | 0.00 | 15.9 |
| 934-2000 | 63.94 | 1.91 | 1.72 | 2.53 | 8.06 | 1.04 | 0.06 | 20.7 |
| 2000-3000 | 62.65 | 2.15 | 3.10 | 3.68 | 8.08 | 1.47 | 0.22 | 18.6 |
| 3000-5000 | 58.84 | 3.03 | 5.41 | 3.90 | 7.33 | 1.89 | 0.24 | 19.3 |
| >5000 | 57.44 | 3.98 | 3.31 | 3.00 | 7.27 | 2.54 | 0.69 | 21.7 |
| Overall | 63.57 | 2.06 | 2.35 | 2.92 | 8.04 | 1.19 | 0.12 | 19.7 |

Authors Calculation *(salt, oil, spices, beverages, processed food, pan etc)

Sandeshkhali is an interior riverside salted water based area. In this location calorie, consumption is lower by all the food items except egg, meat and fish compared to other locations. People of Sandeshkhali consume very negligible amount of pulses, fruits and dry fruits.

We observe from the table 1.5, 1.6, 1.7 different locations have different pattern of food consumption. Adjacent village have a tendency to consume more in processed food when interior village consumption from different items is very low. In Amdanga people living in the extreme bottom expenditure class consume more vegetables than the other places. Proportions of high value foods are also different for

different locations. 'Other food item' consumption is lower in Gaighata than Fakir pur, it may be for the impact of urbanization or location. The interior village Sandeshkhalis' calorie consumption from different food items is very low compare to other locations but calorie coming from meat fish and egg is a little bit higher than consumption of Gaighata.

Section 1.2 relations between occupation type and calorie consumption of different areas of Purba Bardhaman

In this section, we observe detail occupational structure of the mentioned locations. With this location-wise impact on consumption, we also see the occupational structure of these cities and the impact on calorie consumption. This section examines how far occupation types of people of different areas engage in influence consumption patterns.

Table-1.8 Percentage of people belonging to different occupation type with their average calorie intake for different expenditure classes : Rural Areas of North 24 Paragana

| Exp. Class | Self Employed in Agriculture | Regular Wage/Salaried | Casual Labour In Agriculture | Casual Labour In Non-Agriculture | Others |
|---------------|------------------------------|-----------------------|------------------------------|----------------------------------|--------|
| Amdan ga | 24.4 | 2.0 | 16.6 | 9.8 | 0.5 |
| Gaighat a | 15.8 | 11.7 | 25.0 | 20.2 | 1.0 |
| Sandes hkhali | 29.2 | 3.9 | 33.0 | 10.1 | 3.0 |

Author Calculation

In Amdanga proportion of people in occupation type 'Self-Employed in agriculture' is higher than any other occupation with increasing distances from District town Barasat, proportion of people living in 'casual labour in agriculture' is increasing. Nature of majority of people of these rural areas is agriculture related activity.

In this section, first, we shall discuss the relative impact of change in income and change in location on the one hand, on the other hand we shall discuss the relative impact of change in location and change in occupation type on calorie consumption taking one urban area Bardhaman and three rural areas Fakirpur, Palasan and Jamalpur.

We use ANOVA to test the significance of relative impact of change in location vis-a-vis change in expenditure classes in calorie consumption.

Table.1.9 Result of ANOVA for urban area

| Location | Expenditure Class | Location Expenditure Class * |
|----------|-------------------|------------------------------|
| 0.000*** | 0.000*** | 0.000*** |

*** Significant at 99% level, ** 95% level, * 90% level

Table.1.9.shows that impact of both change in location and change in total expenditure class on calorie consumption are statistically highly significant. The ANOVA shows variation of location has more impact than variation in expenditure class for both urban and rural area of West Bengal.

Table-1.10Relative importance of Location vis-a-vis Occupation Type over per day per capita calorie consumption (p value and level of significance)- For rural areas

| Expenditure class | Locatio n | Occup ation | location*occ upation |
|-------------------|-----------|-------------|----------------------|
|-------------------|-----------|-------------|----------------------|

| | | | |
|------------------|------|------|------|
| <934(exp -1) | .180 | .954 | .602 |
| 934-2000(exp-2) | .037 | .716 | .354 |
| 2000-3000(exp-3) | .280 | .402 | .086 |
| 3000-5000(exp-4) | .003 | .768 | .025 |
| >5000(exp-5) | .583 | .258 | |

*** Significant at 99% level, ** 95% level, * 90% level

It is clear from ANOVA test that for all income classes, change in location creates greater impact on calorie consumption than occupation, except for the second highest income class. Relative impact of location is greater than occupation for all income classes.

To test the impact of change of calorie consumption from cereals, with location, expenditure class, and occupational, we run a simple regression where calorie consumption from cereals is dependent variable and location, expenditure class, and occupation are the independent variables, all are

$$Y = 1127.0 - 237 d_{12} - 44 d_{13} - 25 d_{22} + 358 d_{23} + 452 d_{24} + 295 d_{25} - 51 d_{32} - 208 d_{33} - 28d_{34} - 90d_{35} - 89d_{36}$$

p value
(.000) (.000) (.000) (.000) (.000) (.000) (.000) (.000) (.000) (.000)

We see that calorie consumption from cereals is highly influenced statistically significantly by expenditure classes, occupational type and location for these rural areas. We observe from the result of regression that movement from Amdanga to Gaighata leads to decrease consumption of calorie from cereals. Movement from Amdanga to Sandeshkhali leads to decrease of consumption of calorie from cereals but the rate is lower than the previous movement. Shifts to bottom expenditure class to higher expenditure classes lead to increase consumption of cereals from calorie consumption except second bottom expenditure class. Shifts from occupation type 'Agriculture' to other occupation lead to decrease calorie consumption from cereals.

Table 1.11 % of Estimated Population below Official Poverty Line and Nutritional Poverty Line

| Location | Official Poverty Line (Rangarajan Committee) * | % of BPL | Location Wise Poverty Line* | % BPL |
|----------------|---|----------|-----------------------------|-------|
| Amdanga | 934.1 | 3.4 | 1994.4 | 68.3 |
| Ghaighata | 934.1 | 5.9 | 1670.8 | 48.4 |
| Sandeash khali | 934.1 | 11.2 | 1346.1 | 53.2 |

Author Calculation * State Specific Poverty line for all rural areas (MPCE in Rs.)

From table 1.11 it is seen that the poverty line estimated by Rangarajan Committee has underestimated the actual poverty scenario.

Conclusion

We have seen that per capita average expenditure is different for each location. Adult Male Equivalent for consumption is different for different location. Composition of food basket is different for each location. The relative impact of expenditure, location and occupation on calorie consumption is significant and the relative impact of location is greater on calorie consumption than occupation. Movements from one location to other location lead to change diversification of food baskets. All these imply that pattern of consumption changes with change of location. It may be due to

impact of urbanization. The money value of minimum required nutrition is different for different rural areas as the composition of food baskets changes for different locations. As a result, the money value of poverty line income for different areas is different. Considering the location-wise impact, the estimated poverty line is much higher than the official estimated poverty line (table 4.1 and 10.0). From the above discussion, it is clear that a single poverty line for all urban or rural areas of a state does not show the actual picture of poverty. A single poverty line underestimated the actual poverty scenario. However, this poverty line is beneficial for taking the local level policy.

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