

9-29-2010

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Samaraweera, S.A.N.C. and N.R. Abeynayake. "Moving out of Chronic Poverty: Community Level Study on Poverty over the Time." (2010). https://digitalrepository.unm.edu/nsc_research/49

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Moving out of Chronic Poverty: Community Level Study on Poverty over the Time

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ABSTRACT

Chronically poor people are those who experience deprivation over many years, often over their entire lives, and who sometimes pass poverty on to their children. In this study poverty is measured as the low level of satisfaction of the ten basic needs and the underutilization of material and non material resources. The ten basic needs considered in this study are; clean and pleasant environment, water, clothing, food, dwellings, health, transport and communication, fuel, education, spiritual and cultural needs. The economic factors which are studied in this research include financial capital (income indebtedness and savings), human capital (educational, skill and health levels of people), physical capital (housing and mobility) and natural capital (land).

The research was carried out from 1st March to 30th July 2009 in Wanduressa village in Sri Lanka which is established by settling down of one of the low caste communities in the country named as Rodiya community in 1959 and 1961. Two hundred eleven households live in Wanduressa village were used for the sampling procedure and 50 households were drawn based on the stratified random sampling technique. Stratification was done based on their livelihoods. Six strata were identified as households with several livelihoods, involved mainly in trading, masonry, carpentry, government services, and rattan production.

This study was done as close as possible to the base research done by Professor Ratnapala in 1979 in same village to compare the satisfaction levels for the ten basic needs with today's situation. The results indicate that over the time, the community level satisfaction for ten basic needs has been increased by 54.95%. According to the normalized satisfaction level index constructed in the research using Principal Component Analysis, 98% households obtained satisfaction level above 0.5 while minimum and maximum are 0.34 and 0.96 respectively. Underutilization of the economic factors of the community has also been reduced over the time.

Poverty alleviation programmes, awareness programmes and the effort taken by the households to reduce their separation from the high caste communities are the main causes to reduce the poverty over the time. Multiple Linear Regression analysis was carried out to see the relationship between the household level satisfaction index for ten basic needs and demographic and economic factors. It shows that there is a significant relationship between the satisfaction Index with income and skills.

The research reveals that providing incentives and awareness programmes can reduce the poverty dimensions. Further the study suggests that poverty policies which focus on skill development would help to reduce poverty.

After 30 years of the study of Professor Nandasena Ratnapala and 50 years from the colonization, the level of satisfaction of the ten basic needs has been increased and the underutilization of the economic factors has been reduced. Therefore today the community is in a moving out phase from the chronic poverty.

KEYWORDS: Chronic poverty, Satisfaction level index, Ten basic needs

INTRODUCTION

The poverty or poor exists where some persons fall short of reasonably defined minimum levels of wellbeing such as access to certain consumption or income levels, housing, health and education facilities and certain rights recognized according to the standards of human needs and socio economic conditions of the society.

The Chronic Poverty Research Centre was established in October 2000 by a group of universities, research institutes, consultancies and NGOs to focus attention on chronic poverty; stimulate national and international debate; deepen understanding of the causes of chronic poverty and to provide research, analysis and policy guidance that will contribute to its reduction. Chronic Poverty Research Centre is administered from the institute for development policy and management, University of Manchester in UK.

Chronic Poverty Research Centre defines chronically poor people as those who experience deprivation over many years, often over their entire lives, and who sometimes pass poverty on to their children. Chronic poverty is typically characterized not only by low income and assets, but also by hunger and under nutrition, illiteracy, the lack of access to necessities such as safe drinking water, health services, social isolation and exploitation. Chronically poor people have little access to productive assets and low capabilities in terms of health, education and social capital. They are the invisible poor, and occupy a blind spot when it comes to the design of development policy and the delivery of public services (Anon, 2009b).

In terms of human development indicators, Sri Lanka has been ranked hundred fourth among hundred seventy seven countries (Anon, 2008a). However, 15.2% of the population of the country has continued to live in poverty. According to the household income and expenditure survey, 2006/2007 conducted by the department of Census and Statistics, 2805 thousands are being poor. Among people below the poverty line, 2303 thousands recorded from rural sector.

Poverty head count index is always higher in rural areas with compare to urban areas. It was 29.4% in 1990/1991, 30.9% in 1995/1996, 24.7% in 2002 and 15.7% in 2007 (Anon, 2008b).

Professor Nandasena Ratnapala has studied poverty of rural villages in Sri Lanka in 1979 and discussed chronic poverty in those villages. One of those villages known as “Wanduressa” which is established by settling down of one of the low caste community in the county named as *Rodiya* community in 1959 and 1961 was selected for this study with the objective of analyzes the situation of micro level poverty dimensions after 30 years. Further, the study focuses to find out the causes for the changes in poverty over the time.

METHODOLOGY

Conceptualization

Poverty is conceptualized in many ways. In this research poverty has been conceptualized and studied as the low level of satisfaction of the ten basic needs and underutilization of the economic factors.

The Ten Basic Needs

The “Ten Basic Needs” approach has been used to measure the poverty by measuring the level of satisfaction of the village community for their basic need such as clean and pleasant environment, water, clothing, food, dwellings, health, transport and communication, fuel, education, spiritual and cultural needs (Ratnapala, 1979).

Economic factors

Financial, human, physical and natural capitals allow communities to have welfare and to follow the customary behaviors of their societies. Poverty exist when the absence or

underutilization of these material and non-material resources for the basic satisfaction and well-being of all human beings (Tudawe, 2001). The economic factors which have been studied in this research include financial capital (income indebtedness and savings), human capital (educational, skill and health levels of people), physical capital (housing and mobility) and natural capital (land).

Location

Wanduressa is situated about 64 miles away from Colombo (Capital of Sri Lanka) on the Kurunegala-Chilaw road in Northwestern province in Sri Lanka. This village was established by settling down the low cast community named *Rodiya* community by allotting lands and build houses for them through the department of Rural Development in 1959 and 1961 under the village reawakening programme.

Sampling methodology

Stratified random sampling technique was done based on their livelihoods. Six strata were identified as households with several livelihoods, involved mainly in trading, masonry, carpentry, government services, and rattan production. Two handed eleven households (HHs) live in Wanduressa village were used for the sampling procedure and 50 households were drawn from those strata randomly.

Data collection

Key person interviews, household survey and focus group discussion was done to collect data. The questionnaire used for the household survey consisted with three major parts. The first

part consisted with the questions related to the ten basic needs, second part consisted with questions related to the socio economic data and the third part consisted with the life history tool.

Data Analysis

Analysis was done as close as possible to Professor Nandasena Ratnapala’s analysis in 1979 to compare the present situation of satisfaction level for the ten basic needs with the situation in 1979.

Satisfaction of ten basic needs were measured using a scoring system. According to the scoring system each basic need is awarded 100 marks. Percentage satisfaction was calculated as;

$$P_j = \frac{\sum_{i=1}^n x_{ij}}{5000}$$

Where,

x_{ij} = i^{th} Household’s satisfaction level of j^{th} basic need.

P_j = Percentage satisfaction of j^{th} basic need

$i = 1,2,\dots,50 \quad j = 1,2,\dots,10$

n = Sample size

Building of Satisfaction level Index for the ten basic needs (SI)

Satisfaction Index (SI) was developed with the marks given to the household for ten basic needs. Each household’s marks were normalized as equation given below.

$$\frac{x_{ij} - x_{j \text{ min}}}{x_{j \text{ max}} - x_{j \text{ min}}}$$

Where,

$x_{j_{\min}}$ = Minimum satisfaction value of j^{th} basic need

$x_{j_{\max}}$ = Maximum satisfaction value of j^{th} basic need

Principle component analysis was used to construct the index as describe in the equation given below.

$$SI_i = \frac{PC_1 \lambda_1 + PC_2 \lambda_2 + \dots PC_n \lambda_n}{\lambda_1 + \lambda_2 + \dots \lambda_n}$$

Where,

SI_i = i^{th} house hold Satisfaction Index

PC_1, PC_2, \dots, PC_n = Principle component values

$\lambda_1, \lambda_2, \lambda_n$ = Eigen values

Empirical Model

The empirical model was constructed to find out the relationship between the household's level of satisfaction on the ten basic needs and the socio economic factors.

$$Y_i = \beta_0 + \beta_1(Gen) + \beta_2(Edu) + \beta_3(Skill) + \beta_4(Pr i.Occ) + \beta_5(Mo.In) + \beta_6(HHsize) + \varepsilon$$

Multiple Linear Regression was done to find out the relationship between the household's satisfactions of ten basic needs (SI) and the Socio economic factors of the households. Table 1 shows the response & predictor variables considered for the empirical model.

RESULTS AND DISCUSSION

Level of satisfaction of the ten basic needs in community level

Community level satisfaction for the ten basic needs in 2009 is 83.91%. In 1979 it was 29.03%. Therefore over the time the community level satisfaction for the ten basic needs has increased by 54.88%. Table 2 shows the satisfaction level of community for each basic need.

Satisfaction Index (SI) for the ten basic needs of household

A higher SI score reflects a higher level of satisfaction and vice-versa. Therefore index value provides an assessment of households' satisfaction level for the ten basic needs.

According to the SI values, 92% households have a satisfaction level greater than 0.5. That is a good indicator of moving out of the chronic poverty in the study area.

Association between SI and socio economic factors

Table 3 represents the parameters estimated by multiple linear regression. According to results it was identified that the household level satisfactions for the ten basic needs is significantly influenced by income and skills. The households whose income is in the range of Rs. 15000-20000 have highest satisfaction. In same way the households who have skills in the field of non agriculture reported that highest satisfaction than the agriculture.

Economic factors

Over the time, economic factors of the community have changed. Agricultural involvement, family income per month, adult literacy rate of the community, education levels of adults and health conditions of the village community have increased distinctly and unemployment rate has decreased markedly during the period. Further, results reveal that housing conditions, skills and human resources also have improved in the community (Table 4).

Causes for the change of poverty over the time

Food consumption of the households has increased by 40% due to poverty alleviation programmes such as Janasaviya (1989-1995) and Samurdhi (1995 onwards).

Community level health projects and awareness programmes conducted by the health officers in the has helped to improve the health conditions of the villagers.

Civil war has prevented rattan weavers to go into forest areas in Pollonnaruwa to obtain rattan. Due to that 12% of the households have negatively affected by the war on livelihoods, incomes, clothes and food consumption.

CONCLUSION AND POLICY IMPLICATIONS

After 30 years of the study of Professor Nandasena Ratnapala and 50 years from the colonization, the level of satisfaction of the ten basic needs has increased and the underutilization of the economic factors has reduced. Therefore today the community is in a phase of moving out from the chronic poverty.

External changes such as poverty alleviation programmes of the country (e.g. Janasaviya and Samurdhi), NGO funds, and community level awareness programs conducted by the public health officers have facilitated the reduction of the poverty dimensions of the village community over the period under review. Civil war, death or the illness of breadwinner have negatively affected on the reduction of poverty.

Households have taken an effort to change their primary occupations, and improve human resources, literacy rates, education levels, skills, dwellings, clothes and health conditions. Through that effort, households have reduced the focus on their inferior communal identity and the separation of the Rodiya community from the mainstream communities.

Even though the education of adult population has increased with respect to the situation of 1979, still the education levels of the community remain low in comparison to the rest of Sri Lanka. But the development of skills has facilitated the community to become involved in gainful livelihoods and increase the satisfaction of the ten basic needs and increase the utilization of the economic factors. Therefore the entering the mainstream and reducing the chronic poverty has changed via livelihoods rather than via formal education.

Therefore the research reveals that providing incentives and awareness programmes can contribute to reducing the poverty dimensions. Further the study suggests that anti poverty policies which focus on skill development and empowering chronically poor people towards gainful usage of those skills have a direct impact on reducing poverty.

ACKNOWLEDGEMENTS

Authors wish to express their gratitude to Ms. N. Gunetilleke Ms. Nilakshi De Silva, Ms. Ishara Rathnayake, Ms. K.I.H. Sanjeevanie, Ms. Gayathri Lokuge, Mr. S. Shivakumaran, and all staff members of Centre for poverty analysis Colombo and Mr. D.M. Ruwan Thushara; Grama Niladari officer of Wanduressa, for the valuable assistance provided throughout the research period.

Table 1. Variable defined for the empirical model

Notation	Variables	Scale
Y_i	Satisfied Index (<i>SI</i>)	
Edu	Education level of household head	Primary -1 Secondary -2 No schooling -3
Skill	Skills of household head	Agriculture -1 None-Agriculture -2 Both agriculture & non-agriculture -3
Pri.Occ	Primary occupation of household head	Government services-1 Masonry -2 Trading -3 Weaving rattan products-4
Mo.In	Monthly income of the household	> 20000 -1 15000 – 20000 -2 10000 – 15000 -3 5000 - 10000 -4 <5000 -5
HH.size	Household size	Number of members
β_0	Constant	
$\beta_1 - \beta_6$	Coefficients	

Table 2. Community level satisfaction for ten basic needs

Basic need	Satisfaction level
1. Clean & pleasant environment	74.97%
2. Water	89.6%
3. Clothes	98.13%
4. Food	86.18%
5. Shelter	95%
6. Health	85%
7. Transport and communication	81%
8. Fuel	67.60%
9. Education	67.01%
10. Spiritual & cultural	94.57%
Community level satisfaction	83.91%

Table 3. Results of Multiple Linear Regression

Predictor	Coeff	SE Coeff	T	P
Constant	0.70518	0.06779	10.4	0
Edu_1	-0.02248	0.04871	-0.46	0.647
Edu_2	0.07457	0.05301	1.41	0.168
Skill_1	-0.08939	0.07311	-1.22	0.229
Skill_2	-0.26602	0.03474	-7.66	0*
Pri_Ocu_2	0.04805	0.06846	0.7	0.487
Pri_Ocu_3	0.04886	0.04001	1.22	0.23
Income_1	0.02588	0.06057	0.43	0.672
Income_2	0.16277	0.07551	2.16	0.038*
Income_3	0.07701	0.05681	1.36	0.183
Income_4	0.06739	0.04834	1.39	0.171
HH_Size	0.01222	0.01447	0.84	0.404

R-Sq = 68.6% R-Sq(adj) = 59.5%, *Variables significant at 5%

Table 4. Comparison of Poverty Dimensions in 1979 and 2009

Poverty Dimension	1979	2009
1. Land size	97 HHs shared 150 acres of land	1ac-1/2ac - 40% 1/2ac-1/8ac - 8% <1/8ac- 52%
2. Agricultural involvement	No any involvement in agricultural activity	18% of the population involve in the agriculture (Paddy, Vegetables and Fruits)
3. Steady income source	Rattan production - 71.13% Making brooms - 12.37%, Sanitary labors - 9.27% Making musical instruments - 2.06% Bringing out ornamental ware - 1.03%, Begging - 5.15%	Agriculture – 18% Rattan products - 24% Trading - 46% Masonry - 6% Government services - 6%
4. Family income per month	Earn less than Rs. 300/- 100%	<Rs.5000- 14% Rs.5000-1000- 50% Rs.1000-15000- 18% >Rs.15000-18%
5. Unemployment	51.4%	35.48%

6. Houses	The 49 houses constructed by the government were permanent, other houses were looked like hovels	Good condition-42%, Constructing-56%, Dilapidated-2%
7. Vehicles	No	Bicycle = 18% Motorcycle - 20% Three wheeler - 4% Motorcycle & lorry - 2% Car - 2% Lorry - 8%
8. Borrowing	No access with banks	34% of HHs have taken bank loans for constructing their houses and develop their livelihoods.
9. Adult population who had gone to school	Over 95% of adult population had not gone to school.	87.07% of adult population has gone to school.
10. Level of education of the adults	Few have continued up to grade 5	Grade 1-5 - 47% Grade 6-8 - 30% Grade 9-11 - 13% Pass O/L - 6% Grade 11-13 - 1% Pass A/L - 2%
11. Skills	Making rattan baskets - 45.16% Making ekel brooms - 8.06% Making musical instruments - 0.6% making house hold artistic items - 0.6% Spinning plates - 2.25%	Rattan products - 13.3% Trading - 11.3% Agriculture - 1.3% Masonry - 3.3% More than one skill - 22%
12. Availability of human resources	No skilled Carpenters /masons/ handicraft/ technical work/ farmers/traders .etc	Skilled masons - 4% Farmers - 14.6% Traders - 32.5%
13. Nutrition	Prevalence of mal nutrition	No prevalence of malnutrition

Note: *HHs – House holds

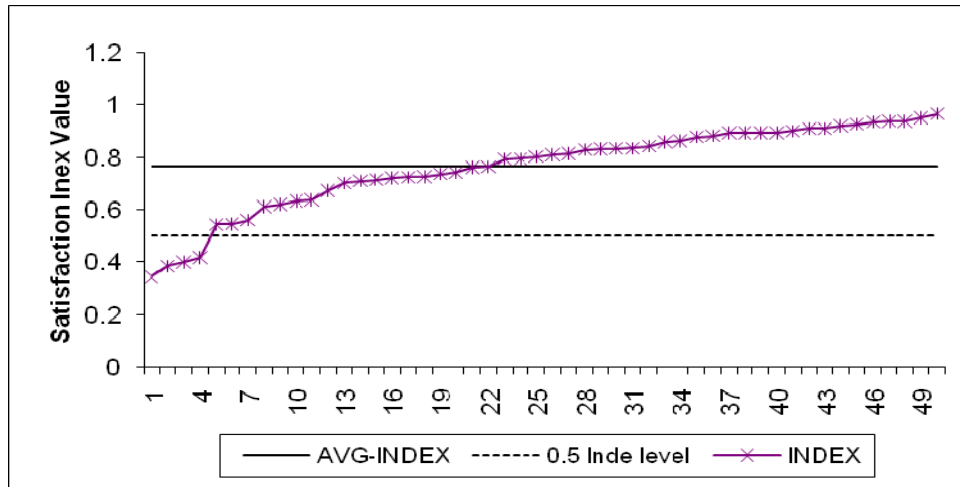


Figure 1. Satisfaction level of individual households for the ten basic needs

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