

*Full Length Research Paper*

# Empirical assessment of poverty status among rural farming household in district Nagaur of Rajasthan, India

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## Abstract

The paper examined the poverty status of rural farming households in District Nagaur, Rajasthan in India, using Foster, Greer and Thorbecke poverty (FGT) indices and Probit regression model. The data used were generated from a survey involving 80 rural farming household's randomly selected using multistage sampling technique. Results of analysis revealed that the mean per capita monthly income among the farm households was Rupees 2932.91 with the FGT poverty incidence, poverty gap and poverty severity estimated to be 20%, 3.7% and 0.87% respectively. Poverty incidence was found to be higher among farming household in village Talanpur (7.5%), illiterate farming household head (11.3%) and those having five members and above (18.8%). The probit regression further indicates that the likelihood of being poor were more with large households and one income stream. The study therefore suggests that poverty alleviation programs must focus not only on those factors which aggravate poverty but also vulnerability, in order to employ several specialized approaches to tackle these multifarious problems. It is therefore recommended that government should strengthen the adult literacy education programmes and encourage farmers to diversify their income source.

**Keywords:** Rural farming households, poverty status, probit regression, district Nagaur, Rajasthan, India.

## INTRODUCTION

According to the common definition, poverty refers to a condition when a person can no longer meet the required levels to maintain specified standard of living, they are considered poor. Since its independence, the issue of poverty within India has remained a prevalent concern and is still a major issue even in this day and age (IFAD, 2015). The population of people living below the poverty line in India is the highest in the world and the problem is not going away (AAI, 2015). Furthermore, AAI (2015) reported that if you've ever been to India then you will

understand - from the moment the plane hits the ground the poverty is evident, indeed it is the idea of such extreme poverty which gives people the idea of travelling to India in the first place. Some sources suggest that now almost 60% of the world's poor now call India home. It is also the country with the highest rate of Malnutrition among children under the age of 36 months: a massive 46% (World Bank, 2015). The poverty and situations that people are forced to live in, coupled with the burning desire to survive have resulted in people doing some unimaginable things to stay alive. As of 2010, more than 37% of India's population of 1.35 billion still lives below the poverty line; more than 22% of the entire rural population and 15% of the urban population of India

exists in this difficult physical and financial predicament. Poverty is deepest among members of scheduled castes and tribes in the country's rural areas with them account for 80 per cent of poor rural people, although their share in the total rural population is much smaller. India suffers from a lot of poverty, which means that many people do not have enough money. Over the last decade, poverty has witnessed a consistent decline with the levels dropping from 37.2% in 2004-2005 to 29.8% in 2009-2010. In 2012, the Planning Commission of India reported that 21.9% of all people in India fall below the international poverty line of US\$ 1.25 per day (UN, 2015). The number of poor are now estimated at 250 million, of which 200 million reside in rural India. Between 2000 and 2014, the annualised growth rates for Gujarat, Haryana, or Delhi were much higher than for Bihar, Uttar Pradesh, Rajasthan or Madhya Pradesh (FAO, 2014). Poverty rates in rural Orissa (43%) and rural Bihar (41%) are among the world's most extreme (Mani *et al.*, 2013); on the map of poverty in India, the poorest areas are in parts of Rajasthan, Madhya Pradesh, Uttar Pradesh, Bihar, Jharkhand, Orissa, Chhattisgarh and West Bengal (Times of India, 2015).

Despite significant economic progress, one quarter of the nation's population earns less than the government specified poverty threshold of 56 rupees per day approximately US\$1 (Mani *et al.*, 2013). The value of economic reforms to poverty reduction has been questioned with some scholars suggesting that it has caused a collapse of rural economies and increase in poverty (FAO, 2014). While total overall poverty in India has declined, the extent of poverty reduction is often debated. While there is a consensus that there has not been an increase in poverty between 2010-2011 and 2013-2014, the picture is not so clear if one considers other non-pecuniary dimensions such as health, education, crime and access to infrastructure.

In light of the Millennium Development Goals, an increasing debate in development economics has focused on the measures necessary to achieve rapid poverty reduction. Whilst the past is not necessarily always a good guide to the future, knowing a bit more about the pathways through which poverty has been reduced in the past may give some useful insights into the approaches which may prove most effective in the future. Many narrative pathways out of poverty exist, but there are few quantitative models that have been tested over significant historical periods. Carefully tracing broadly representative pathways out of poverty requires panel data on many individuals and households. However, the number of panel data sets is growing and empirical pathways out of poverty are now being described. Since most poor people live in rural areas, special attention is devoted to rural pathways out of poverty. It remains a fact that most poor live in rural areas and are primarily engaged in low productivity farm

activity. Hence, the main pathway out of poverty must be strongly connected to productivity increases of the rural poor, whether they are realised in farming, rural non-farm enterprises or by urban migration.

However, there have been growing literatures over the past ten years that focuses on the role of farm enterprises as engines of rural development and income growth. The main issue in this research centres on the question if farm enterprises are merely an insurance activity for poor local farmers or whether they are, or potentially can be - given the absence of certain constraints, a source of dynamics, facilitating growth and poverty alleviation, in particular, in rural areas. In turn, this research is strongly connected to the considerable efforts of recent years to understand the nature of pro-poor growth which inevitably must encompass the rural poor and their potential pathways out of poverty. The generally positive results, even during this difficult period, hold broader promise for achievement of the MDGs. Therefore, this research attempts to identify the pathways out of poverty during periods of economic and political turmoil through empirical assessment of individual income development and poverty in Rajasthan in India over time, employment sector and space utilising mainly primary panel datasets during year 2015

## LITERATURE REVIEW

The word poverty comes from old French *poverté* (Modern French: *pauvreté*), from Latin *paupertās* from pauper (poor); the English word "poverty" via Anglo-Norman *povert* (Walters, 2005). There are several definitions of poverty depending on the context of the situation it is placed in, and the views of the person giving the definition with scholars disagreeing as to which definition is appropriate for India (Erenstein, 2011). Inside India, both income-based poverty definition and consumption-based poverty statistics are in use (Krishna and Sheriff, 2011). Outside India, the World Bank and institutions of the United Nations use a broader definition to compare poverty among nations, including India, based on purchasing power parity (PPP), as well as nominal relative basis (Davidson and Peter, 2012). United Nations fundamentally defined poverty as inability of getting choices and opportunities, a violation of human dignity; lack of basic capacity to participate effectively in society, not having enough to feed and clothe a family, not having a school or clinic to go to, not having the land on which to grow one's food or a job to earn one's living, not having access to credit, insecurity, powerlessness and exclusion of individuals, households and communities, susceptibility to violence, living in marginal or fragile environments, without access to clean water or sanitation (United Nation, 2011). World Bank termed poverty as pronounced deprivation in wellbeing, and

comprises many dimensions. It includes low incomes and the inability to acquire the basic goods and services necessary for survival with dignity; low levels of health and education, poor access to clean water and sanitation, inadequate physical security, lack of voice, and insufficient capacity and opportunity to better one's life (Chandy and Gertz, 2011). Copenhagen Declaration defined poverty as a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but also on access to social services (Panaganiya and Mukim, 2014); and sometimes synonymously referred to as 'extreme poverty (Chen and Ravallion, 2013), and is usually measured as either **absolute** or **relative**; the latter being actually an index of income inequality.

Poverty was intense during colonial era India, and numerous famines and epidemics killed millions of people (Chandy and Gertz, 2011; Jonathan *et al.*, 2012). The 19th century and early 20th century saw increasing poverty in India during the colonial era (Reddy and Miniou, 2008; World Bank, 2012). Over this period, the colonial government de-industrialized India by reducing garments and other finished products manufacturing by artisans in India, importing these from Britain's expanding industry with 19th century industrial innovations, while simultaneously encouraging conversion of more land into farms, and of agricultural exports from India (OECD, 2008; Raphael and Dennis, 2009). These colonial policies moved unemployed artisans into farming, and transformed India as a region increasingly abundant in land, unskilled labour and low productivity and scarce in skilled labour, capital and knowledge (United Nation, 2011; World Bank, 2012). On an inflation adjusted 1973 rupee basis, the average income of Indian agrarian labourer was 7.20 rupees per year in 1885, against an inflation adjusted poverty line of 23.90 rupees per year. Thus, not only was the average income below poverty line, the intensity of poverty was severe. The intensity of poverty increased from 1885 to 1921, then began a reversal. However, the absolute poverty rates continued to be very high through the 1930s (World Bank, 2012; UNDP, 2008). Furthermore, the colonial policies on taxation and its recognition of land ownership claims of *zamindars* and *mansabdars*, or *mughal* era nobility, made a minority of families wealthy, while it weakened the ability of poorer peasants to command land and credit, thus making the resulting rise in landlessness and stagnant real wages to intensified poverty (Alkire and Summer, 2013). Since 1950s, the **Indian government** and Non-governmental organisations have initiated several programmes to alleviate poverty, including **subsidising** food and other necessities, increased access to loans, improving agricultural techniques and price supports, and promoting education and **family planning**. These measures have helped eliminate famines, cut **absolute poverty** levels by more than half, and reduced **illiteracy** and **malnutrition**. Although the **Indian economy** has grown steadily over the

last two decades, its growth has been uneven when comparing social groups, economic groups, geographic regions, and rural and urban areas (WHO, 2010). Ravallion *et al.* (2013) reported that the **World Bank** has reviewed its poverty definition and calculation methodologies several times over the last 25 years. In early 1990s, the World Bank anchored absolute poverty line as \$1 per day. This was revised in 1993, and the absolute poverty line was set at \$1.08 a day for all countries on a **purchasing power parity** basis, after adjusting for inflation to the 1993 U.S. dollar. In 2005, after extensive studies of cost of living across the world, the World Bank raised the measure for global poverty line to reflect the observed higher cost of living. Thereafter, the World Bank determined poverty rates from those living on less than US\$1.25 per day on 2005 purchasing power parity basis, a measure that has been widely used in media and scholarly circles. Panaganiya and Mukim (2014) reported after revisiting its poverty definition, methodology and economic changes around the world, the World Bank proposed another major revision to purchasing power parity calculation methodology, international poverty line and indexing it to 2011 U.S. dollar. The new method proposes setting poverty line at \$1.78 per day on 2011 purchasing power parity basis. According to this revised World Bank methodology, India had 179.6 million people below the new poverty line, China had 137.6 million, and the world had 872.3 million people below the new poverty line on an equivalent basis as of 2013. India, in other words, while having 17.5% of total world's population, had 20.6% share of world's poor (Panaganiya and Mukim, 2014). A major cause of poverty among India's rural people, both individuals and communities, is lack of access to productive assets and financial resources. High levels of illiteracy, inadequate health care and extremely limited access to social services are common among poor rural people. Microenterprise development, which could generate income and enable poor people to improve their living conditions, has only recently become a focus of the government. TTI (2015) show that the number of poor has declined faster in the period during which the Congress-led United Progressive Alliance was in power and that, in the same period, the monthly expenditure per person had increased more equitably, especially in rural areas. Nearly 20 million people were pulled out of poverty every year, the data showed. While experts welcomed the decline in poverty, they flagged concerns such as the comparability of the numbers, by which the rich is dominating the poor people in the world; as such they should not see the poor people as their slaves.

## METHODOLOGY

### Study Area

Nagaur (Nāgaur) is one of the district in the state of **Rajasthan** in **India** and lies about midway between **Jodhpur** and **Bikaner**. Nagaur lies between latitude 27.2°N to 27°12'N and longitude 73°44'E to 73.73°E

**Table 1:** Sampling frame of District Nagaur, Rajasthan, India

State	District	Tehsil/Taluka/Mandal/Block	Villages	No. of respondents
Rajasthan	Nagaur	Merta	Shiva	10
			Talanpur	10
			Khariya	10
			Hersolao	10
			Gotan	10
			Rol chandawata	10
			Champapur	10
			Sarangwas	10
			<b>Total</b>	<b>80</b>

**Greenwich meridian.** It has an average elevation of 302 metres (990 feet). Nagaur is situated amidst seven districts namely Bikaner, Churu, Sikar, Jaipur, Ajmer, Pali, Jodhpur. Nagaur is the fifth largest district in Rajasthan with a vast terrain spreading over 17,718 km<sup>2</sup>, out of which 17,448.5 km<sup>2</sup> is rural and 269.5 km<sup>2</sup> is urban. Its geographical spread is a good combine of plain, hills, sand mounds and as such it is a part of the great Indian Thar Desert or Great India Desert. Nagaur has a dry climate with a hot summer, with sand storms been common in summer. The climate of the district is conspicuous by extreme dryness, large variations of temperature and highly variable rainfall. The mercury keeps on rising intensely from March till June. These are the hottest months. The maximum temperature recorded in the district is 47 C with 00 C as the lowest recorded temperature. The average temperature of the district is 23.50 C. The winter season extends from mid November till the beginning of March. Rainy season is short from July to mid September (Wikipedia, 2015).

### Sampling Procedure and Size

This study was conducted in District Nagaur in Rajasthan state of India. The study employed multi stage sampling technique. Firstly, one Taluka/Tehsil/Mandal/Block out of (10) ten tehsils, namely Merta was conveniently selected. Secondly, eight (8) villages were randomly selected, and lastly, ten (10) respondents were randomly selected using simple random sampling technique, thus, given a total sample size of (80) eighty. The sampling frame for the study is given as follows:

### Method of Data Collection

Both primary and secondary data were used for the study. Primary data involved the use of pre-tested questionnaire coupled with interview schedules, while secondary data involved the use of journals, textbooks, internet, and archives ecetra.

### Analytical Procedures

Data collected were analyzed using poverty line construction model, Foster-Greer Thorbecke (FGT) in

analyzing the extents and level of poverty among rural farming households and probit regression model in determining poverty causal factors.

### Empirical model

#### Construction of the Poverty Line

Poverty line has been defined as the minimum or the cut-off standard of expenditure on food or per capita income below which an individual or household is described as poor (Adekoya, 2014).. Therefore, the poverty line was defined as the two-thirds (2/3) of the mean value of per capita income in the study area. The farm households were categorized into poor and non-poor group using the two-third mean per capita income as the bench mark (World Bank, 2011). Households whose mean per capita income falls below the poverty line are regarded as being poor while those with their income above the benchmark are non-poor.

$$PCHMI = THMI/HHS \text{ -----}$$

----- (1)

$$MPCHMI = TPCHMI/TNR \text{ -----}$$

----- (2)

$$PL = 2/3 * MPCHMI \text{ -----}$$

---- (3)

Where:

PCHI = Per Capita Household Monthly Income

THMI = Total Household Monthly Income

HHS = Household Size

MPCHMI = Mean Per Capita Households Monthly Income

TNR = Total Number of Respondent

TPCHMI = Total Per Capita Households Monthly Income

PL = Poverty Line

### FGT Poverty Index

Following de Janvry *et al.* (2005), FGT poverty index developed by Foster *et al.* (1984) was adopted to measure the extent of poverty among rural farming households. The FGT poverty index is given by:

$$P\alpha = 1/n \sum (z-y_i/z)^\alpha \text{ ..... (4)}$$

Where;



P = Poverty index

n = total number of households in population

q = the number of poor households

z = the poverty line for the household

y<sub>i</sub> = household income

α = Poverty aversion parameter and takes on value 0, 1, 2

$(z - y_i/z)^\alpha$  = Proportion shortfall in income below the poverty line.

α takes on value 0,1,2 to determine the type of poverty index.

When α = 0 in FGT, the expression reduces to

$$P_0 = (1/n) \dots\dots\dots (5)$$

This is called the Incidence of poverty, describing the proportion of the population that falls below the poverty line.

When α = 1 in FGT, the expression reduces to

$$P_1 = 1/n \sum (z - y_i/z)^1 \dots\dots\dots (6)$$

And this is called the Poverty depth

When α = 2 in FGT, the expression becomes

$$P_2 = 1/n \sum (z - y_i/z)^2 \dots\dots\dots (7)$$

This is called Poverty Severity Index. This index weighs the poverty of the poorest household more heavily than those just slightly below the poverty line. It adds to the poverty depth an element of unequal distribution of the poorest household's income below the poverty line.

### Probit Regression Model

The probit model assumes:

$$\Pr(Y = 1/X) = \Phi(X'\beta)$$

$$\Pr(Y = 1/X) = \frac{\exp(X'\beta)}{1 + \exp(X'\beta)} \dots\dots\dots (8)$$

An equivalent form can be stated as:

$$\frac{\exp(X'\beta)}{1 + \exp(X'\beta)} = \frac{1}{1 + \exp(-X'\beta)} \dots\dots\dots (9)$$

This can be expressed as

$$P/(1-P) = f(X) \dots\dots\dots (10)$$

And re-written as

$$Y = \beta X_t + U \dots\dots\dots (11)$$

Where Y<sub>it</sub> = an unobservable latent variable for household poverty status (1 = poor, 0 = otherwise).

X<sub>it</sub> = Vector of explanatory variables

X<sub>1</sub> = Age (years)

X<sub>2</sub> = Age squared (years)

X<sub>3</sub> = Education (years)

X<sub>4</sub> = Household size (numbers)

X<sub>5</sub> = Occupational status (full-time farming = 1, otherwise 0)

X<sub>6</sub> = Farming experience (years)

X<sub>7</sub> = Dependency burden (unproductive members/household size)

β = Vector of parameter to be estimated

U = error term

## RESULTS AND DISCUSSION

### Poverty Line

The poverty line is that level of welfare which distinguishes poor households from non-poor households. There is no clear consensus in the literature about when a household or an individual should be defined as poor. Adepoju and Yusuf (2012), and Adekoya (2014) used expenditure approach but Adewumi *et al.* (2011) used income approach. The use of expenditure approach to measure poverty is wrong given that expenditure is spent income, whereby income encompasses both spent income (consumption/expenditure) and unspent income. It will be spurious to assume that human beings lack culture and attitude towards savings irrespective of their economic status in any given economy system. Therefore, the appropriate parameter or approach for poverty measurement should be income approach because it goes beyond expenditure. Furthermore, expenditure approach referred to spent income, as such its use should be tied to measurement of food security, since both used FGT model. The poverty line set for the study follows income poverty line measure. The relative poverty line was thus defined based on total income for the households. The poverty base line defined as two-thirds of the mean per capita household monthly income of the total households stood at 1955.27 rupees. Consequently, household heads that earned less than or falls below the defined poverty base line of 1955.27 rupees in per capita monthly income were considered to be poor, while household heads with per capita monthly income equaled or above the defined poverty base line are termed as non-poor.

The degree of poverty among the rural household was assessed using the three poverty indices: poverty incidence (P<sub>0</sub>), poverty depth of (P<sub>1</sub>), and poverty severity (P<sub>2</sub>), following the Foster, Greer and Thorbecke poverty measure. The head count index of poverty incidence showed that 20 percent of the rural households were poor, while the poverty gap which measures the extent by which poor households were below the poverty line was 0.037. This implies that on the average, a poor household will require 72.35 rupees to exit from poverty. The severity of poverty index was 0.0087(0.87 percent) which represents the poorest among the poor farm households who require the attention of policy maker in the distribution of the standard of living indicators, such as health care services, clean water and income generating activities. Meanwhile, available statistics put the poverty incidence in India and Rajasthan state in 2015 at 37.2%

**Table 2:** Construction of Poverty line

Items	Estimates
Mean per capita household monthly income (MPCHMI)	R 2932.91
2/3*MPCHMI (Poverty base line)	R 1955.27
Poverty Incidence ( $P_0$ )	0.20
Poverty Gap ( $P_1$ )	0.037
Poverty Severity ( $P_2$ )	0.0087

Source: Field survey, 2015

**Table 3:** Poverty level and extent across socio-economic correlates

Variables	Poverty Incidence ( $P_0$ )	Poverty Gap ( $P_1$ )	Poverty Severity ( $P_2$ )
<b>Villages</b>			
Hersolao	0.0125	0.0049	0.0019
Khariya	0.05	0.0103	0.0021
Sarangwas	0.025	0.0059	0.0014
Gotan	0.025	0.0028	0.0003
Talanpur	0.075	0.0096	0.0019
Shiv	0.0125	0.0036	0.0011
<b>Total</b>	<b>0.20</b>	<b>0.037</b>	<b>0.0087</b>
<b>Age</b>			
≤ 40	0.025	0.0065	0.0021
41-50	0.075	0.0164	0.004
51-60	0.05	0.0049	0.00074
≥ 61	0.05	0.009	0.0019
<b>Total</b>	<b>0.20</b>	<b>0.037</b>	<b>0.0087</b>
<b>Education</b>			
Illiterate	0.11	0.019	0.00394
Primary	0.05	0.012	0.00363
Secondary	0.04	0.0059	0.0011
Tertiary	0	0	0
<b>Total</b>	<b>0.20</b>	<b>0.037</b>	<b>0.0087</b>
<b>Household size</b>			
≤ 2	0	0	0
3-4	0.013	0.0005	0.00002
5-6	0.038	0.009	0.0023
≥ 7	0.15	0.027	0.0064
<b>Total</b>	<b>0.20</b>	<b>0.037</b>	<b>0.0087</b>
<b>Occupational status</b>			
Full time farming	0.137	0.026	0.0065
Farming and non-farming	0.063	0.011	0.0022
<b>Total</b>	<b>0.20</b>	<b>0.037</b>	<b>0.0087</b>

Source: Field survey, 2015

and 26.4% respectively (UNDP, 2015). Comparing these statistics, it shows that the poverty incidence obtained for rural households in District Nagaur (20%) is much lower than the poverty index statistics given by the Planning Commission, of which 25.7% of people in rural areas were below the poverty line and 13.7% in urban areas in 2014. Furthermore, this was compared with 33.8% and 20.9%, respectively, in 2009-10, and 42% and 25.5%, respectively, in 2004-05 (NSSO, 2014; Wikipedia, 2015).

#### Extent and Level of Poverty across Socio-economic Characteristics of Rural Households

The result of FGT analysis showing the poverty status across socio-economic characteristics of the rural

households is presented in Table 2. Results revealed that poverty incidence, poverty depth and poverty severity was most noticed among household heads who were in Talanpur village, age range between 41-50, low literacy level, household size of 5 and above and more. As a whole, poverty incidence in the study area was 0.20 implying that 20% of the rural households were actually poor. On disaggregation base the poverty incidence in Talanpur village, age range of 41-50 years, low literacy level and household sizes were 7.5%, 7.5% and 11.3% respectively. This proportion invariably agreed with the earlier estimation of the proportion of poor farm households (i.e 20%) based on the poverty line definition. The value  $P_1$  (poverty depth) across socio-economic characteristics of the rural farm household heads was

**Table 4:** Determinant of poverty among rural household

Variables	Coefficients	Standard error	t-ratio	Marginal effects
Age	-0.293	0.115	2.552**	-0.049
Age squared	0.0040	0.0021	1.91*	0.0007
Education	-0.017	0.009	1.8*	-0.0029
Household size	0.455	0.1654	2.75***	0.076
Occupational status	0.072	0.043	1.67*	0.012
Farming experience	-0.0956	0.068	-1.41 <sup>NS</sup>	-0.016
Dependency burden	-2.694	1.414	1.91*	-0.451
Constant	5.989	4.748	1.26 <sup>NS</sup>	
Log likelihood	-40.68			
LR test	23.36***			
Pseudo R <sup>2</sup>	0.37			

Source: Field survey, 2015

0.037, implying that the poor farm households require 3.7% of the poverty based line monthly per capita income to get out of poverty. The value of the monthly per capita income required by the poor rural household in the study area to exit from poverty was 72.35 rupees. The breakdown revealed that rural households in Talanpur village, age range within 41-50 years, low level of literacy and household size of  $\geq 5$  required 18.77 rupees (0.96%), 31.28 rupees (1.6%), 37.15 rupees (1.9%) and 70.39 rupees (3.6%) respectively to get out of poverty. The P2 (poverty severity) across the socio-economic correlates of rural households was 0.0087, thus the poorest among the poor accounts for 0.8% which is less than unity. This is an indication that policies aimed at poverty alleviation are highly effective and carries human face. The severity was more experienced by rural households resident in Talanpur village, middle age household heads, households with low literacy levels, large households' size and with single income stream (only farm income).

### Determinants of Poverty

Table 4 shows the factors associated with a household's poverty status. The statistically significant value of chi-square of 23.36 was an indication that the data set fits the model. The major determinants of poverty were age of household head, education of the household head and dependency burden of the household. The results reveal that being an educated household head and a year increase in the age of the household head decreased poverty by 0.003 and 0.049, respectively. The decrease in poverty with age could be attributed to high quest for socio-economic status by middle age household, thereby encouraging them to become economically active which in turn affects their productivity, income and subsequently decrease their poverty. Consistent with lifecycle effects, the coefficient of age squared had a positive effect on poverty implying that the negative association of age with poverty will weaken over time. Also, a unit increase in household size, with a single income stream, and an additional non-working member to the household increased poverty by 0.076, 0.012, and 0.45 respectively.

The effect of large family size is such that it increases the per capita expenditure of the family. Increased household size is also synonymous with more dependants who do not contribute to household income, thereby aggravating poverty in the household.

### CONCLUSION AND RECOMMENDATIONS

Successive governments in India have implemented poverty alleviation programmes and strategies with commensurate dent on poverty. The near success of these programmes and strategies has been linked to the proper diagnosis of poverty as a dynamic concept. This research estimated poverty status of rural households and found out that 20 percent of the farming household in the study area are below the poverty line, thereby making the findings to agreed with the validity of preposition made about poverty reduction in India, given by the following programmes:

According to 2011 poverty Development Goals Report, as many as 320 million people in India and China are expected to come out of extreme poverty in the next four years, with India's poverty rate projected to drop from 51% in 1990 to about 22% in 2015. The report also indicates that in Southern Asia, only India is on track to cut poverty by half by the 2015 target date. Furthermore, in 2015, according to United Nation's Millennium Development Goal (MGD) programme, India has already achieved the target of reducing poverty by half, with 21.9% of its 1.2 billion people living below the poverty line or having income of less than \$1.25 a day, the U.N. report said. India had set a target of 23.9% to be achieved by 2015.

Despite all the causes, India currently adds more millions people to its middle class every year than any other country same as china. Poverty decline in India is fastest just after china and the country will be poverty free by 2020.

From the above conclusion the following recommendations were made;

- Rural populations primarily depend on agriculture, which is highly dependent on rain patterns

- and the monsoon season. Therefore adequate and proper irrigation facilities can obviously cause high, or in some cases, production of crops throughout the year.
- Additionally, the Indian family unit is often large, which can amplify the effects of poverty, therefore family planning campaign should reach the rural populace..
- Also, the caste system still prevails in India, and this is a major reason for rural poverty people from the lower casts are often deprived of the most basic facilities and opportunities. The government has planned and implemented poverty eradication programs, but the benefits of these programs are yet to bear fullest fruits.
- Government should do more in ensuring even distribution of resources, as well as wealth, thereby removing the disparity created by different poverty ratios for different states.

## REFERENCES

- Adewunmi, O. I., Adesimi, B. and Ezekiel, O. A. (2011). Non-farm Activities and Poverty among Rural Farm Households in Yewa Division of Ogun state. *Journal Social Science*, Vol. 26(3):217-224
- Adekoya, O. A. (2014). Analysis of Farm Households Poverty Status in Ogun States, Nigeria. *Asian Economic and Financial Review*, Vol. 4(3):325-340
- Adepoju, A.O. and Yusuf, S.A. (2012). Poverty and Vulnerability in Rural South-West Nigeria *ARPJ Journal of Agricultural and Biological Science*, Vol. 7(6):430-437
- All About India (AAI)(2015). Poverty in India. Accessed from [www.all-about-india.com](http://www.all-about-india.com)
- Alkire and Sumner (2013). Multidimensional Poverty and the Post-2015 MDGs. *Development paper*, Vol. 56(1):46-51
- Chandy, L. and Gertz, G. (2011), *Poverty in numbers: The changing state of global poverty from 2005 to 2015*, Brookings Institution.
- Chen and Ravallion (2008). China is poorer than we thought, but no less successful in the fight against poverty. *Policy Research Working Paper 4621*, page 9
- Chen and Ravallion (2013). More relatively poor people in a less absolutely poor world. *Review of Income and Wealth*, Vol. 59(1):1-28
- Davidson and Peter (2012). *Poverty in Australia (Report)*. Strawberry Hills, NSW: Australian Council of Social Service.
- Erenstein (2011). Livelihood Assets as a Multidimensional Inverse Proxy for Poverty: A District level Analysis of the Indian Indo Gangetic Plains. *Journal of Human Development and Capabilities*, Vol. 12(2):283-302
- Food and Agriculture (FAO) (2014). *Proceedings of the workshop on forests for poverty reduction: changing role for research, development and training institutions*. FAO
- Gazette of India (2013). The National Food Security Act, 2013. *The Gazette of India, Govt of India*
- Ghosh and Jayati (2011). India's official poverty line. *London Guardian UK*
- IFAD (2015). Poverty in India is a major issue. Retrieved from [www.economywatch.com](http://www.economywatch.com)
- Jonathan, Watts (2007). Riots and hunger feared as demand for grain sends food costs soaring. *The Guardian* (London)
- Jonathan, B., Yekaterina, C., Gill M., Bruno, M., Leonardo M. and Chris de Neubourg (2012). Relative Income Poverty among Children in Rich Countries (Report). *Innocenti Working Paper*. Florence, Italy: UNICEF Innocenti Research Centre.
- Krishna and Shariff (2011). The irrelevance of national strategies? Rural poverty dynamics in states and regions of India. *World Development*, Vol. 39(4):533-549
- Mani, A., Mullainathan, S., Shafir, E. and Zhao, J. (2013). Poverty Impedes Cognitive Function. *Science* 341 (6149): 976–980.
- Organisation for Economic Co-operation and Development (OECD)(2008). *Growing unequal? Income distribution and poverty in OECD countries*. Paris, France. Organisation for Economic Co-operation and Development (OECD)
- Panagariya and Mukim (2014). A comprehensive analysis of poverty in India. *Asian Development Review*, 31(1):1-52
- Raphael and Dennis (2009). Effect of poverty in causing malnutrition. *Canadian Journal of Nursing Research (CJNR)* 41 (2): 7–18.
- Reddy and Miniou (2008). Has World Poverty Really Fallen?. *Review of Income and Wealth*, 53(3):22-30
- Ravallion, M., Chen, S. and Sangraula, P. (2013). Dollar a day. *The World Bank Economic Review* 23 (2): 163–184
- Roy, T. (2007). London School of Economics, Globalization, Factor Prices and Poverty in Colonial India. *Australian Economic History Review*, Vol. 47(1):73-94
- The Times of India (2015). India is home to world's one-thirds of extreme poor population-UN study. Accessed from [www.indiatimes.com](http://www.indiatimes.com)
- United Nation (2011). Indicators of Poverty and Hunger. *United Nation Report*
- United Nation (2015). 30 crore people still live in extreme poverty in India. *United Nation Report*
- United Nation Development Programme (UNDP)(2008). *Human development report: Capacity development: Empowering people and institutions (Report)*. Geneva: United Nations Development Program.
- Walter, Skeat (2005). *An Etymological Dictionary of the English Language*. Dover Publications.
- World Bank (2012). World Bank Sees Progress Against Extreme Poverty, But Flags Vulnerabilities. *The World Bank*. Accessed from [povertydata.worldbank.org](http://povertydata.worldbank.org)
- World Bank (2015). Our world is a world free of poverty. [www.worldbank.org](http://www.worldbank.org)
- World Health Organization (2010). *Poverty Issues Dominate WHO Regional Meeting*. Accessed from [wpro.who.int](http://wpro.who.int)