

CHAPTER – IV

RESULTS AND DISCUSSION

The major findings of the study are presented and discussed under the following heads:

- I. Socio - economic profile of the MGNREGA beneficiaries
- II. Living conditions
- III. Saving behavior
- IV. Incidence of indebtedness
- V. Asset holdings
- VI. Household expenditure pattern
- VII. Employment details
- VIII. Benefits of MGNREGA scheme
- IX. Negative impacts of MGNREGA scheme
- X. Opinion of the beneficiaries for improvement of the scheme

I. Socio –Economic Profile of the Selected Households:

In a traditional and structural society like ours, the social and economic factors do play a significant role in shaping the personality and characteristics of an individual. In order to develop a proper perspective analysis, all the components of social and economic environment must be considered. The general notion is that the social environment is a combination of factors such as religion, caste, family structure, marital status, size of family and age, while economic environment is made up of factors such as education, occupation, income and expenditure. A clear insight into the socio – economic factors is of paramount significance to establish the influence of these factors on the life and activities of the respondents. A total of 500 beneficiaries were surveyed, of which 218 (43.6 percent) were from Periyanaickenpalayam Block and 282 (56.4 percent) were from Karamadai Block. Table 4.1 presents socio – economic profile of the selected scheduled tribe respondents in the two blocks.

TABLE – 4.1
SOCIO – ECONOMIC PROFILE OF THE RESPONDENTS
(in percentage)

S.No	Particulars		Periyanaickenpalayam Block	Karamadai Block	All
1	Gender	Male	31.2	44.3	38.6
		Female	68.8	55.7	61.4
2	Religion	Hindus	95	98.9	97.2
		Christians	5	1.1	2.8
		Muslims	0	0	0
3	Type of family	Nuclear family	82.6	88.3	85.8
		Joint family	17.4	11.7	14.2
4	Marital status	Single	4.1	17.4	11.6
		Married	90.8	81.6	85.6
		Widow	5	1.1	2.8
5	Family size	Less than 4 members	78.4	82.3	80.6
		5 or more members	21.6	17.7	19.4
		Average size of the family (in numbers)	3.88	3.45	3.64
6	Age composition of family members (in years)	0 to 14	19.2	14.7	16.7
		15 to 59	67.7	77.8	73.3
		60 and Above	13.1	7.5	10
		Dependency ratio	47.68	28.53	36.5
7	Education Status	Illiterate	83.5	84.8	84.2
		Primary school	12.8	7.8	10
		Secondary school	2.8	4.6	3.8
		Higher Secondary school	0.9	2.8	2
8	Occupation of the Head of the family	Farm work	69.7	93.3	83
		Nonfarm work	27.1	2.5	13.2
		Unemployed	3.2	4.3	3.8
9	Total Family income (in Rs):	Less than 2000	4.6	2.5	3.4
		2000 to 4000	60.6	77.7	70.2
		4000 and above	34.8	19.8	26.4
		Average family income (in Rs.):	4027.98	3402.3	3675.1

Source: Estimation based on field Survey, 2014

Gender of the beneficiary

Out of 500 households surveyed 61.4 percent of the beneficiaries were females and 38.6 percent were males. The proportions of female beneficiaries were more compared to male beneficiaries in both the blocks. Thus the beneficiaries of MGNREGA were mostly women. Hari and Manikandan (2016) also reported majority (57 percent) of the beneficiaries were women.

Religion

Religion has always played an important role in shaping the attitude and behavior pattern of the people. Data pertaining to religion of the respondents reveals that 97.2 percent of the respondents were Hindus, followed by Christians (2.8 percent). Block - wise analysis also reveals that more than 90 percent of the beneficiary households in both the blocks belonged to Hindu religion.

Type of family

Family in India has been changing very fast both in terms of its structure and functions due to a multiplicity of factors. Joint family system which used to characterize the rural society is gradually being replaced by the nuclear family consisting of husband, wife and their unmarried children only. Information relating to type of family of the respondents reveals that 85.8 percent of the respondents belonged to nuclear family and remaining 14.2 percent belonged to joint family. More than 80 percent of the beneficiary households in both the blocks belonged to nuclear family. Modernization and disintegration of joint family system has paved the way for emergence of nuclear family among the tribal households.

Marital status

Marriage is an important event particularly from the stand point of additional burden of responsibility on the marriage partners to pull together as constituent of a new family. Marriage brings about a number of changes in the attitude and behavior patterns of the people, especially from the point of view of engaging in gainful economic activities yielding income and providing opportunities for independent expenditure. Information relating to marital status highlights that 90.8 percent of the respondents in the

Periyanaickenpalayam block were married, 5 percent respondents were widows and 4.1 percent of the respondents were unmarried. In Karamadai block 81.6 percent of the respondents were married, 1 percent of the respondents were widows and 17.4 percent of the respondents were unmarried. The proportions of unmarried beneficiaries were predominant in Karamadai block.

Family size

Size of the households assumes significance since in a large household, particularly with a large number of dependents and unemployed persons, the pressure of meeting the economic burden of household expenses on the head of the household is high, providing a motivation for extra efforts to add to the overall income by adopting more than one occupation or by expanding the existing occupation or by shifting to more economically gainful employment.

Information gathered regarding the size of household of the respondents highlights that largest group of the respondents in Periyanaickenpalayam block (78 percent) and Karamadai block (82 percent) households have been formed by those having less than 4 members. About 22 percent of the households in Periyanaickenpalayam block and 18 percent of the households in Karamadai block have been formed by more than 5 members. The average size of the family was marginally higher (3.88) for Periyanaickenpalayam block than for the Karamadai block (3.45). Thus the survey reveals that tribal households were practicing small family norms. Annapoorani and Krithiga (2011) reported in their study that 60 percent of the Irula tribal households in The Nilgiris district belonged to small family.

Age composition of the household members

An understanding of the age composition of the households enables us to know the dependency status and thereby clarify the nature and extent of pressure for increasing the earnings. Data pertaining to age composition of the members in the households of the respondents highlights that the single largest groups of the family members in the Periyanaickenpalayam (67.7 percent) and in Karamadai (77.8 percent) blocks were in the active age group of 15 to 59 years. The proportion of members in the age group of less than 14 years was 19.2 percent in Periyanaickenpalayam block and 14.7 percent in the Karamadai block. Similarly the proportion of members above 60 years was 13.1 percent and

7.5 percent respectively in the Periyanaickenpalayam block and Karamadai block. The dependency ratio was significantly higher for Periyanaickenpalayam block (47.68) when compared to Karamadai block (28.53).

Educational status of the respondents

Education not only creates knowledge and understanding but also generates attitude and behavior patterns and thereby plays an important role in all kinds of decision. Information concerning the highest level of education of the respondents unravels that 83.5 percent of beneficiaries were illiterate and 12.8 percent studied up to primary level in Periyanaickenpalayam block and this percentage in Karamadai Block was 84.8 percent and 7.8 percent respectively. Thus, the illiteracy was quite rampant in both the blocks with the incidence of illiteracy being marginally higher in Karamadai block. None of the beneficiaries had completed higher secondary or higher levels of education. Sinu (2013) and Jayakumar and Palaniammal (2016) also reported that 40 to 60 percent of the tribal population were illiterate.

Occupation

Occupation is essential for survival because it is a means of earning livelihood. Occupation-wise, the rural households have hardly any choice. Most of them are engaged in agriculture and allied activities. Secondary and tertiary occupations have very limited penetration as sources of livelihood, though nearness to urban centers provides some job opportunities especially for male workers. Information concerning the occupation of the head of the family reveals that 69.7 percent of the households in Periyanaickenpalayam block were engaged in farm activity while this percentage was 93.3 percent in Karamadai block. About 27.1 percent of the households in Periyanaickenpalayam block and 2.5 percent of the households in Karamadai block were engaged in non-farm activity. While 3.2 percent households were unemployed in Periyanaickenpalayam block this proportion was 4.3 percent households in Karamadai block. Thus the proportion of people engaged in farm activities and proportion unemployed were more in Karamadai block. Increasing dependence on farm activities which deprives them year round employments have driven them to find some alternative jobs to meet their basic subsistence. Discussing the occupational status of the

beneficiaries, Deshpande and Kattimani (2010) in their study also observes that most of the tribes (around 80.55 percent) were depended on agriculture.

Total Family Income

Level of income is an important indicator of economic welfare. Hence an analysis of income becomes the key stone of any comprehensive study. The analysis of the total family income of the respondents reveals that while 60.6 percent of the households in Periyanaickenpalayam block and 77.7 percent of the households in Karamadai block belonged to the income bracket of Rs. 2000 to 4000, the proportion of family earning more than Rs. 4000 per month was 34.8 percent in Periyanaickenpalayam block and 19.8 percent in Karamadai block. The respondents in the Periyanaickenpalayam block had the highest average family income of Rs. 4027.98 and it was least for the respondents in Karamadai block (Rs.3402.30). The low average income of the households implies that most of the beneficiaries in both the blocks belonged to the lower strata in the society. Arrokk Toppo et al., (2016) assessing the socio - economic condition of tribal people in Bangladesh found that about 50 percent of the households earned up to Rs. 4000 per month.

Chi – Square Analysis

In this section, an attempt was made to examine whether the MGNREGA beneficiaries in the selected two blocks differed with respect to socio – economic factors by using chi-square test. The hypothesis framed was

H₀: There is no association between the place of location and socio – economic variables.

H_a: There is significant association between the place of location and socio – economic variables.

The results of Chi – square analysis is presented in Table - 4.2.

TABLE –4.2

**ASSOCIATION BETWEEN PLACES OF RESIDENCE AND SOCIO –
ECONOMIC VARIABLES**

S.No	Variables	χ^2 value	Degrees of freedom	Level of significance	Inference	
1.	Social factors	Religion	4.456	1	.000	Rejected H ₀
		Gender	25.992	1	.000	Rejected H ₀
		Education	941.616	3	.000	Rejected H ₀
		Marital status	620.464	2	.000	Rejected H ₀
		Type of family	256.328	1	.000	Rejected H ₀
		Family size	187.272	1	.000	Rejected H ₀
		Age	135.364	2	.000	Rejected H ₀
2.	Economic factors	Occupation	561.652	2	.000	Rejected H ₀
		Family income	583.216	3	.000	Rejected H ₀

Source: Estimation based on field Survey, 2014

The estimated chi – square values reveals that MGNREGA beneficiaries in Periyanaickenpalayam block significantly differed from Karamadai block with respect to both social and economic factors. While the beneficiaries in Periyanaickenpalayam block were predominantly females, married, having larger family, high dependency ratio, higher educational status, engaged in non – farm activities and earning higher family income, the beneficiaries in Karamadai block belonged to nuclear family, having lower dependency ratio, marginally lower educational status, engaged in farm activities and having lower average family income.

II. Living Conditions:

Housing includes not only the ‘physical structure’ providing shelter but also the immediate surroundings and the related community services and facilities. World Health Organisation (WHO) prefers the term “residential environment” to ‘housing’ and defines it as the physical structure that man uses and the environs of that structure including necessary services, facilities, equipment and devices needed or desired for the physical and mental health and the social well-being of the family and individual (Krishnakumar,2001). In the present study, the quality of a house was assessed in terms of ownership of the house, size of the house plot, type of house, nature of its roof, floor and walls, the availability of electricity and

latrine, fuel used for cooking and availability of safe drinking water. Table 4.3 presents details on the living arrangements of the selected sample respondents.

TABLE – 4.3
LIVING CONDITIONS OF SAMPLE HOUSEHOLDS
(in percentage)

S.No	Particulars	Periyanaickenpalayam Block	Karamadai Block	All	
1	Ownership pattern of house	Own house	100	100	100
		Rented house	0	0	0
2	Type of house	Kachcha	4.6	3.9	4.2
		Semi-pucca	67	54.3	59.8
		Pucca	28.4	41.8	36
3	Type of roof	Leaf	1.8	3.5	2.8
		Tile	55	33.7	43
		Concrete	43.1	62.8	54.2
4	Type of wall	Mud and stone	17	3.5	9.4
		Brick	83	96.5	90.6
5	Type of floor	Mud	4.1	5.3	4.8
		Cement	95.9	94.7	95.2
6	Plinth area of the house (in sq.mt)	Below 40.47	27	6.1	15.2
		40.47 to 60.70	63.8	83.6	75
		60.70 and above	9.2	10.3	9.8
7	Number of rooms	1 to 2 rooms	92.7	96.4	94.8
		3 to 4 rooms	7.3	3.5	5.2
8	Separate area for cooking	Yes	96.8	90.1	93
		No	3.2	9.9	7
9	Availability of electricity	Electrified	100	100	100
		Not electrified	0	0	0
10	Drinking water for the households	Public tap	100	100	100
		Private tap	0	0	0
11	Type of drainage	Open	0	0	0
		Closed	0	0	0
		No facility	100	100	100
12	Type of fuel used for cooking	Firewood	100	100	100
		LPG	0	0	0
13	Type of toilet	Open place	100	100	100
		Public latrine	0	0	0

Source: Estimation based on Field Survey, 2014

The details on the ownership of the dwelling revealed that all the surveyed households in Periyanaickenpalayam and in Karamadai blocks lived in own houses. Since these respondents belonged to the lower strata of the society, the governmental assistances would have enabled them to claim ownership rights over their place of residence. A certain minimum standard of housing is essential for healthy and civilized existence. Housing facilities are generally grouped into three categories namely kutcha, semi - pucca and pucca. A house which had walls and roof made of non -pucca material like unburnt bricks, bamboo, mud, grass leaves etc is regarded as kutcha house. A pucca house is one whose walls and roofs are made of pucca material such as cement, concrete, burnt bricks, stone etc. A house which cannot be classified as a pucca or kutcha is categorized as a semi-pucca house. Such a house will have either the walls or roofs but not both made of pucca material. The analysis of type of residential houses reveals that only a negligible proportion of households in Periyanaickenpalayam (4.6 percent) and Karamadai (3.9 percent) blocks lived in kutcha houses. More than half of the households (59.8 percent) lived in semi - pucca houses. Thus, the governmental assistances may have enabled these households to live in better type of houses.

The quality of the house was judged in terms of type of material used for roof, floor and walls. About 43.1 percent of the families in Periyanaickenpalayam block and 62.8 percent in Karamadai block were living under concrete roof and 55 percent of the families in Periyanaickenpalayam block and 33.7 percent of the families in Karamadai block had tiles as roofing materials. Only 1.8 percent of families in Periyanaickenpalayam block and 3.5 percent of the families in Karamadai block were living in houses with leaf roof. About 95.9 percent of the families in Periyanaickenpalayam block and 94.7 percent in Karamadai block had cement flooring. Only 4.8 percent of all the families had mud as flooring. More than 83 percent of the families in Periyanaickenpalayam block and 96.5 percent of the families in Karamadai block have brick walls and the remaining 17 percent in Periyanaickenpalayam block and 3.5 percent in Karamadai block have walls made of mud and stone.

The house plots of the surveyed respondents were significantly smaller in size. About 63.8 percent of the households in Periyanaickenpalayam block and

83.6 percent in Karamadai block were living in an area which measured 40.47 Sq.mt – 60.70 Sq.mt. The smaller area of living indicates the poor economic status of the households. The number of rooms available is also an indicator of the better living conditions of the tribes. Data presented in the table 4.3 reveals that 92.7 percent of the households belonging to Periyanaickenpalayam block were living in 1-2 room setup while this percentage was 96.4 percent in Karamadai block. Only 7.3 percent of the households in Periyanaickenpalayam block were living in houses with 3-4 rooms and this percentage was 3.5 percent in Karamadai block. Overall, nearly 94.8 percent of the tribal households had only 1 to 2 rooms' in their houses indicating poor living space.

Availability of electricity, method of cooking, availability of drinking water and type of latrine are some of the variables that influence environmental status. All the surveyed households in both the blocks were living in electrified house and used firewood for cooking, which emits smoke and pollutes the environment, leading to diseases such as asthma, lung cancer, bronchitis and other respiratory problems. The increased use of firewood may be attributed to the proximity of tribal households to forest resources. The shortage of drinking water is a major problem for many households in rural areas. The residents of surveyed villages do not face this problem as they are able to get drinking water through hand pumps, overhead tank, well etc. The major source for drinking water was public tap (100 percent) for the residents. None of the households had water connection inside the house. They were mainly dependent on public water taps and other resources for meeting their water requirements. The respondents have stated that they have no access to toilet facility and have to use open space. Thus, the living conditions of the respondents were quite unhygienic. Sinu (2013) analysed the living conditions of Irular tribes in Villupuram district of Tamil Nadu concluded that the living condition of Irular tribal community was very poor.

Chi – Square Analysis

An attempt was made to examine whether the MGNREGA beneficiaries in the selected two blocks differed with respect to living conditions by using chi-square test. The hypothesis framed was:

H₀: There is no significant difference in living conditions among the sample beneficiaries of MGNREGA scheme.

H_a: There is significant difference in living conditions among the sample beneficiaries of MGNREGA scheme.

The results of chi – square analysis is presented in Table – 4.4

TABLE – 4.4

ASSOCIATION BETWEEN PLACES OF RESIDENCE AND LIVING CONDITIONS

S.No	Variables	χ^2 value	Degrees of freedom	Level of significance	Influence
1	Type of house	233.452	2	0.000	Rejected H ₀
2	Type of roof	219.172	2	0.000	Rejected H ₀
3	Type of wall	329.672	1	0.000	Rejected H ₀
4	Type of floor	408.608	1	0.000	Rejected H ₀
5	Area in Square meter	504.912	3	0.000	Rejected H ₀
6	Number of rooms per person	1135.44	3	0.000	Rejected H ₀
7	Separate area for cooking	369.8	1	0.000	Rejected H ₀

Source: Estimation based on field Survey, 2014

The estimated chi – square values reveal that MGNREGA beneficiaries significantly differed in their living conditions, with respect to house type, type of roof, type of wall, type of floor used for house, area in square meter, number of rooms per person and separate area for cooking. The beneficiaries in Karamadai block were marginally well off with respect to physical structure of their shelter than beneficiaries in Periyanaickenpalayam block, with nearly 42 percent living in pucca houses, 63 percent had house with concrete roofing, 97 percent had houses with brick wall and plinth area of the house exceeded 60 sq.mt for 10 percent of the beneficiaries.

III. Saving Behavior:

Savings are essential for meeting the challenges of different types of adversities. They generally depend upon the number and nature of various sources of earnings of the households. With increased earnings the incidence of savings is also likely to be higher. Along with income, savings are also an important index of economic status of the households. Table 4.5 furnishes the details on the savings behavior of the sample households in the selected two blocks.

TABLE – 4.5
SAVINGS PATTERN AMONG THE SAMPLE HOUSEHOLDS (in percentage)

S.No	Particulars	Periyanaickenpalayam Block		Karamadai Block		All	
		Before MGNREGA	After MGNREGA	Before MGNREGA	After MGNREGA	Before MGNREGA	After MGNREGA
1	Number of households						
	(i)With savings	49 (22.5)	69 (31.7)	72 (25.5)	134 (47.5)	121 (24.2)	203 (40.6)
	(ii)Zero savings	169 (77.5)	149 (68.3)	210 (74.5)	148 (52.5)	379 (75.8)	297 (59.4)
2	Source of savings						
	(i)Cash in hand	29 (13.3)	31 (14.3)	46 (16.3)	75 (26.6)	75 (15.0)	106 (21.2)
	(ii) Deposits	20 (9.2)	38 (17.4)	15 (5.3)	38 (13.5)	35 (7.0)	76 (15.2)
	(iii)Insurance (LIC)	0 (0)	0 (0)	11 (3.9)	21 (7.5)	11 (2.2)	21 (4.2)
	(iv) Not applicable	169 (77.5)	149 (68.3)	210 (74.5)	148 (52.4)	379 (75.8)	297 (59.4)
3	Amount of savings (in Rupees)						
	(i)Less than 1000	49 (22.5)	63 (28.9)	71 (25.2)	132 (46.8)	120 (24)	195 (39)
	(ii)1000 to 2000	0 (0)	6 (2.8)	1 (0.3)	2 (0.7)	1 (0.2)	8 (1.6)
	(iii) Not applicable	169 (77.5)	149 (68.3)	210 (74.5)	148 (52.5)	379 (75.8)	297 (59.4)
4	Reasons for savings						
	(i)Future Needs	36 (16.5)	49 (22.5)	28 (9.9)	69 (24.5)	64 (12.8)	118 (23.6)
	(ii) Education	5 (2.3)	11 (5)	32 (11.3)	54 (19.1)	37 (7.4)	65 (13)
	(iii) Medical	3 (1.4)	0 (0)	8 (2.8)	7 (2.5)	11 (2.2)	7 (1.4)
	(iv) Marriage	5 (2.3)	9 (4.1)	4 (1.5)	4 (1.4)	9 (1.8)	13 (2.6)
	(v) Not applicable	169 (77.5)	149 (68.4)	210 (74.5)	148 (52.5)	379 (75.8)	297 (59.4)

Source: Estimation based on field Survey, 2014

Figures within brackets indicate percentage to column total.

Data relating to savings before joining MGNREGA scheme reveal that about 22.5 percent of the households in Periyanaickenpalayam block and 25.5 percent of the households in Karamadai block were in a position to save. After joining the MGNREGA scheme the beneficiary's savings behaviour has show significant improvement with the number of households increasing to 31.7 percent in Periyanaickenpalayam block and 47.5 percent in Karamadai block. At the macro level the proportion of the households who were able to save increased from 24.2 percent in the pre – MGNREGA period to 40.6 percent in post – MGNREGA period.

The proportion of households having zero saving before joining MGNREGA scheme was marginally higher in Periyanaickenpalayam block (77 percent) than in Karamadai block (74 percent). This percentage significantly declined after joining the scheme to 68.3 percent in Periyanaickenpalayam block and 52.5 percent in Karamadai block. Thus the saving behaviour among the sample households has significantly improved after joining the MGNREGA.

Information with regard to mode of savings by the households who were able to save brings out that most favoured form of savings for the tribal households before joining MGNREGA scheme was cash in hand (13.3 percent) followed by deposits (9.2 percent) in Periyanaickenpalayam block, while 16.3 percent of households in Karamadai block gave preference to cash in hand followed by deposits (5.3 percent) and LIC (3.9 percent).After joining the MGNREGA, the most favoured form of savings for the tribal households in Periyanaickenpalayam block was cash in hand (14.3 percent) and followed by deposits (17.4 percent). The households in Karamadai block preferred to save in the form of cash in hand (26.6 percent), followed by deposits (13.5 percent) and LIC (7.5 percent). Thus, cash in hand was the preferred form of savings for large proportion of the households in both the blocks. The increments in individual income of MGNREGA beneficiaries have increased their savings. Data relating to the amount saved monthly before joining MGNREGA reveals that 22.5 percent of the households in Periyanaickenpalayam block and 25.2 percent in Karamadai block saved less than Rs.1000, followed by zero percent of the households in Periyanaickenpalayam block and 0.3 percent of households in Karamadai block saving Rs.1000 to 2000 per month.

Overall 24 percent of households saved less than Rs. 1000 and only 0.2 percent saved Rs.1000 to 2000 per month. Their low income may be a reason for low saving among tribal households. The amount saved per month had show marginal improvement after joining the MGNREGA scheme. About 28.9 percent of the households in Periyanaickenpalayam block and 46.8 percent of the households in Karamadai block saved less than Rs.1000, followed by 2.8 percent in Periyanaickenpalayam block and 0.7 percent in Karamadai block saved more than Rs.1000. At the aggregate level 39 percent of the households saved less than Rs.1000, followed by 1.6 percent of the households saved Rs.1000 and above.

Majority of the households in Periyanaickenpalayam block (16.5 percent) have stated 'to meet future need' as the main reason for savings, followed by 'to meet educational expenses' (2.3 percent), 'to meet marriage expenses' (2.3 percent) and 'to meet medical expenses' (1.4 percent) before joining MGNREGA. While majority of the households in Karamadai block (11.3 percent), have stated 'to meet educational expenses', as the main reason for savings, followed by 'to meet future need', (9.9 percent), 'to meet medical expenses' (2.8 percent) and 'to meet marriage expenses' (1.5 percent).

After joining MGNREGA, the major reason for savings was 'to meet future need'(22.5 percent), followed by 'to meet educational expenses' (5 percent), and 'to meet marriage expenses' (4.1 percent) for households in Periyanaickenpalayam block while in Karamadai block it was 'to meet future need'(24.5 percent), followed by 'to meet educational expenses' (19 percent), 'to meet medical expenses (2.5 percent), and 'to meet marriage expenses' (1.4 percent).

Critical Ratio

Paired 't' – test was used to examine whether there was any significant difference in monthly savings after joining the MGNREGA scheme compared to before joining the MGNREGA scheme. The hypothesis framed was:

H₀: There is no significant difference in monthly savings before and after joined MGNREGA scheme.

H_a: There is significant difference in monthly savings before and after joined MGNREGA scheme.

The estimated 't' – values are shown in Table – 4.6

TABLE – 4.6
't' VALUES AND LEVEL OF SIGNIFICANCE

		Mean	Std. Deviation	't' Value	Level of Significance
Periyanaickenpalayam Block	Before MGNREGA	82.028	184.653	7.993	0.000
	After MGNREGA	191.710	326.989		0.000
Karamadai Block	Before MGNREGA	48.759	164.750	12.085	0.000
	After MGNREGA	153.230	250.310		0.000
All	Before MGNREGA	63.227	174.290	13.854	0.000
	After MGNREGA	169.960	286.520		0.000

Source: Estimation based on field Survey, 2014

The mean savings of the beneficiaries has shown a significant increase in the post MGNREGA period. The average savings per month increased from Rs. 82 to Rs. 192 in Periyanaickenpalayam block, from Rs. 49 to Rs. 153 in Karamadai lock and for the sample as whole from Rs. 63 to Rs. 170. This is substantiated by the calculated 't' value which was found to be significant at one percent level. Hence, the null hypothesis was rejected. The observed differences in amount saved per month before and after joining the MGNREGA scheme indicates that there was definite enhancement in saving level of the beneficiaries after joining the MGNREGA scheme.

IV. Incidence of Indebtedness:

Poverty and indebtedness generally go together. Low income coupled with lack of proper employment also induces these households to borrow money to meet both current expenditure and also unforeseen expenses. The details of the debt pattern are shown in table 4.7.

TABLE – 4.7
DEBT PATTERN AMONG THE SAMPLE HOUSEHOLDS

S.No	Particulars	Periyanaickenpalayam	Karamadai Block	All
------	-------------	----------------------	-----------------	-----

		Block					
		Before MGNREGA	After MGNREGA	Before MGNREGA	After MGNREGA	Before MGNREGA	After MGNREGA
1	Number of households						
	(i) Borrowers	127 (58.3)	85 (39)	155 (55)	96 (34)	282 (56.4)	181 (36.2)
	(ii) Non borrowers	91 (41.7)	133 (61)	127 (45)	186 (66)	218 (43.6)	319 (63.8)
2	Source of borrowing						
	(i) Money lender	64 (29.4)	63 (28.9)	92 (32.6)	67 (23.8)	156 (31.2)	130 (26)
	(ii) Bank	28 (12.8)	12 (5.5)	37 (13.1)	13 (4.6)	65 (13)	25 (5)
	(iii) Friends and relatives	35 (16.1)	10 (4.6)	26 (9.2)	16 (5.7)	61 (12.2)	26 (5.2)
	Not Applicable	91 (41.7)	133 (61)	127 (45)	186 (66)	218 (43.6)	319 (63.8)
3	Reasons for borrowing						
	(i) Family expenditure	38 (17.4)	9 (4.1)	28 (9.9)	33 (11.7)	66 (13.2)	42 (8.4)
	(ii) Education	32 (14.7)	14 (6.4)	12 (4.3)	8 (2.8)	44 (8.8)	22 (4.4)
	(iii) Medical	37 (17)	33 (15.1)	33 (11.7)	9 (3.2)	70 (14)	42 (8.4)
	(iv) Marriage	19 (8.7)	22 (10.1)	66 (23.4)	35 (12.4)	85 (17)	57 (11.4)
	(v) Others	1 (0.5)	7 (3.2)	16 (5.7)	11 (3.9)	17 (3.4)	18 (3.6)
	Not Applicable	91 (41.7)	133 (61)	127 (45)	186 (66)	218 (43.6)	319 (63.8)
4	Amount borrowed (in Rupees)						
	(i) Less than 25000	84 (38.5)	57 (26.1)	57 (20.2)	33 (11.7)	141 (28.2)	90 (18)
	(ii) 25000 and above	43 (19.7)	28 (12.8)	93 (34.8)	63 (22.3)	141 (28.2)	91 (18.2)
	Not Applicable	91 (41.7)	133 (61)	127 (45)	186 (66)	218 (43.6)	319 (63.8)
5	Amount repaid (in Rupees)						
	(i) Less than 10000	115 (52.8)	49 (22.5)	104 (36.9)	72 (25.5)	219 (43.8)	121 (24.2)
	(ii) 10000 and above	12 (5.5)	36 (16.5)	51 (18.1)	24 (8.5)	63 (12.6)	60 (12)
	Not Applicable	91 (41.7)	133 (61)	127 (45)	186 (66)	218 (43.6)	319 (63.8)
6	Rate of interest						
	(i) No interest	103 (47.2)	137 (62.8)	133 (47.2)	188 (66.7)	236 (47.2)	325 (65)
	(ii) Below 5	37 (17)	72 (33)	88 (31.2)	87 (30.9)	125 (25)	159 (31.8)
	(iii) 5 and Above	78 (35.8)	9 (4.1)	61 (21.6)	7 (2.5)	139 (27.8)	16 (3.2)

Source: Estimation based on field Survey, 2014

Figures within brackets indicate percentage to column total

A study of indebtedness among the selected beneficiaries before joining MGNREGA scheme reveals the proportion of borrowers was marginally higher among the households in Periyanaickenpalayam block (58.3 percent) than in Karamadai

block (55 percent). Inadequacy of income coupled with lack of proper employment and indiscriminate spending may have caused the households to resort to increased borrowing. However the proportion of borrowers significantly declined to 39 percent for the beneficiaries in Periyanaickenpalayam block and 34 percent for Karamadai block after joining the MGNREGA scheme.

The main source of borrowing for the beneficiaries was money lenders in both Periyanaickenpalayam (29.4 percent) and Karamadai (32.6 percent) blocks before joining the MGNREGA scheme, followed by friends and relatives (16.1 percent and 9.2 percent respectively) and on banks (12.8 percent and 13.1 percent respectively) in the pre-MGNREGA period. After joining the MGNREGA scheme, the proportions of households depending on money lenders declined to 28.9 percent in Periyanaickenpalayam block and 23.8 percent in Karamadai block. Thus, the easy accessibility to loan from money lenders over banks and other financial institutions may be the reason for increased dependence on money lenders for borrowing in both the blocks.

Majority of the households in Periyanaickenpalayam block (17.4 percent) have stated 'to meet family expenditure' as the main reason for borrowing, followed by 'to meet medical expenses' (17 percent) and 'to meet educational expenses' (14.7 percent) before joining MGNREGA. While majority of the households in Karamadai block (23.4 percent), have stated 'to meet marriage expenses', as the main reason for borrowing, followed by 'to meet medical expenses', (11.7 percent). After joining MGNREGA, the major reason for borrowing was 'to meet medical expenses' (15.1 percent) and 'to meet marriage expenses' (10.1 percent) for households in Periyanaickenpalayam block while in Karamadai block it was 'to meet marriage expenses' (12.4 percent), followed by 'to meet family expenditure' (11.7 percent). While a majority (38.5 percent) of the households in Periyanaickenpalayam block had borrowed less than Rs. 25,000, about 19.7 percent had borrowed more than Rs. 25,000. In Karamadai block, about 20.2 percent of the households borrowed less than 25,000, while about 34.8 percent had borrowed more than Rs. 25,000. About 26.1 percent of the households in Periyanaickenpalayam block and 11.7 percent of the households in Karamadai block had borrowed less than Rs. 25,000 and about 12.8 percent of the households in Periyanaickenpalayam block and 22.3 percent of the households in Karamadai block

had borrowed more than Rs. 25,000 after joining the MGNREGA scheme. Thus, the amount of liability had marginally declined after joining the MGNREGA scheme.

Before joining the MGNREGA 52.8 percent households in Periyanaickenpalayam and about 36.9 percent of the households in Karamadai block had repaid the less than Rs. 10000, while about 22.5 percent households in Periyanaickenpalayam block and about 25.5 percent households in Karamadai block had repaid the debt amounting to Rs.10000 or less after joining MGNREGA. About 16.5 percent and 8.5 percent households had repaid more than Rs.10000 in Periyanaickenpalayam and Karamadai blocks respectively after joining MGNREGA. Despite their low economic status, the tribal households were taking efforts to repay the loan that they had borrowed. Overall 24.2 percent households had repaid the debt amounting to 10000 or less after the MGNREGA. Before joining the MGNREGA around 36 percent of the households in Periyanaickenpalayam and around 22 percent of the households in Karamadai block were charged more than 5 percent rate of interest. The households in Karamadai block (30.9 percent) and in Periyanaickenpalayam block (33 percent) were charged a rate of interest below 5 percent after joining the MGNREGA. About 2.5 percent of the households in Karamadai block and 4.1 percent of the households in Periyanaickenpalayam were charged rate of interest above 5 percent after the MGNREGA.

Critical Ratio

Paired 't' – test was used to examine whether there was any significant differences in amount borrowed after joining MGNREGA scheme compared to before joining the MGNREGA scheme. The hypothesis framed was:

H_0 : There are no significant differences in the amount borrowed before and after joining MGNREGA scheme.

H_a : There are significant differences in amount borrowed before and after joining MGNREGA scheme.

The estimated 't' – values are shown in Table – 4.8

TABLE – 4.8
't' VALUES AND LEVEL OF SIGNIFICANCE

		Mean	Std. Deviation	't' Value	Level of Significance
Periyanaickenpalayam Block	Before MGNREGA	564.22	4830.83	-0.02	0.99
	After MGNREGA	557.34	3902.64		
Karamadai	Before MGNREGA	292.20	19268.08	2.29	0.02
	After MGNREGA	411.35	1413.94		
All	Before MGNREGA	189.40	14852.07	2.19	0.03
	After MGNREGA	475.00	2784.67		

Source: Estimation based on field Survey, 2014

The level of borrowings declined from Rs. 564.22 to Rs. 557.34 in Periyanaickenpalayam block while in Karamadai block and for the overall sample the level of borrowings increased from Rs. 292 to Rs. 411 and Rs. 189 to Rs. 475 respectively. The observed differences in amount borrowed before and after joining the MGNREGA scheme were found to be statistically significant for Karamadai and for all the beneficiaries indicating that there was definite increase in the borrowings after joining the MGNREGA scheme. Whereas in Periyanaickenpalayam block the calculated 't' value was insignificant indicating that no significant change in the borrowing patterns of the respondents after joining the MGNREGA scheme. Thus, MGNREGA scheme has not reduced the level of indebtedness of the beneficiaries.

V. Asset Holdings:

Poverty is directly related to the lack of access to productive assets. It is generally agreed that increasing the access of the poor to the productive assets will prove a viable strategy of poverty alleviation in the rural areas. It is for this reason that poverty alleviation strategies ought to focus more on providing assets to the poor. But after the earlier phase of reforms in agrarian structure no serious effort was made in this direction. A large number of people in the rural areas were without assets or with grossly inadequate and non-productive assets. Table 4.9 shows the details of the assets owned by the respondents.

TABLE – 4.9
ASSETS POSSESSED BY THE HOUSEHOLDS

S. No	Assets	Periyanaickenpalayam Block		Karamadai Block		All	
		Before MGNREGA	After MGNREGA	Before MGNREGA	After MGNREGA	Before MGNREGA	After MGNREGA
1	Productive assets:						
	Land	18 (8.3)	18 (8.3)	84 (29.8)	84 (29.8)	102 (20.4)	102 (20.4)
	Livestock	26 (11.9)	18 (8.3)	78 (27.7)	33 (11.7)	104 (20.8)	51 (10.2)
2	Consumer durables:						
	Fan	87 (39.9)	139 (63.8)	142 (50.4)	46 (16.3)	229 (45.8)	185 (37.0)
	Bicycle	6 (2.8)	2 (0.9)	47 (16.7)	6 (2.1)	53 (10.6)	8 (1.6)
	Radio / Transistor	5 (2.3)	0 (0.0)	21 (7.4)	0 (0.0)	26 (5.2)	0 (0.0)
	Television	203 (93.1)	44 (20.2)	264 (93.6)	13 (4.6)	467 (93.4)	57 (11.4)
	Laptop	0 (0.0)	1 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.2)
	Mobile	39 (17.9)	39 (17.9)	149 (52.8)	38 (13.5)	188 (37.6)	77 (15.4)
	Mixer Grinder	98 (45)	134 (61.5)	15 (5.3)	267 (94.7)	113 (22.6)	401 (80.2)
	Grinder	96 (44)	134 (61.5)	139 (49.3)	49 (17.4)	235 (47.0)	183 (36.6)
	Moped / Motor cycle	0 (0.0)	0 (0.0)	5 (1.8)	0.0	5 (1.0)	0 (0.0)
	House	100	100.0	100.0	100.0	100.0	100.0
	Gold jewellery	43 (19.7)	12 (5.5)	45 (16.0)	3 (1.1)	88 (17.6)	15 (3.0)
	Silver	5 (2.3)	1 (0.5)	7 (2.5)	1 (0.4)	12 (2.4)	2 (0.4)

Source: Estimation based on field Survey, 2014

Figures within brackets indicate percentage to column total.

The asset status of the selected households reveals that only 8.3 percent of the households in Periyanaickenpalayam block and 29.8 percent of households in Karamadai block possessed land before joining the MGNREGA scheme. There is no change in possession of land after joining the MGNREGA. Besides land, 11.9 percent of the households in Periyanaickenpalayam block and 27.7 percent of the households in Karamadai block owned livestock's in the form of cows, oxen, sheep and goat before joining MGNREGA. But, the proportion of livestock holding declined after joining MGNREGA. In Periyanaickenpalayam block it was 8.3 percent and in Karamadai 12.1 percent. The lack of time to look after the livestock, after joining the MGNREGA may be one of the reasons for the decline in livestock possession. The analysis also reveals that the proportions of households owning land and livestock rearing were higher in Karamadai block.

The other important assets possessed by the beneficiaries before joining the MGNREGA were house (100 percent), television (93.1 percent), mixer grinder (61.5 percent), grinder (61.5 percent), fan (39.9 percent), gold (19.7 percent), mobile (17.9 percent), bicycle (2.8 percent), radio / transistor (2.3 percent), silver (2.3 percent) and laptop (0.5 percent). Among the households in Karamadai block the important assets owned by them were house (100 percent) followed by mixer grinder (94.7 percent), television (93.6 percent), mobile (52.8 percent), fan (50.4 percent), grinder (17.4 percent), bicycle (16.7 percent), gold (16 percent), radio / transistor (7.4 percent), silver (2.5 percent) and moped / scooter (1.8 percent). The proportion of beneficiaries having fan, television, mixer grinder, grinder was higher in both the block due to governmental assistance to the tribal people.

There was no improvement in possession of other consumer durables after joining MGNREGA scheme. The assets possessed by the beneficiaries in Periyanaickenpalayam after joining MGNREGA were fan (63.8), mixer grinder (61.5), grinder (61.5), television (20 percent), mobile (18 percent), gold jewellery (5 percent), bicycle (0.9 percent), laptop (0.5 percent) and silver (0.5 percent). Among the households in Karamadai block the important assets owned by them were mixer grinder (94.7 percent), fan (16 percent), grinder (17.4 percent), mobile (13.5 percent), television (4.6 percent), bicycle (2.1 percent), gold jewellery (1.1 percent) and silver (0.4 percent).

The low percentage of investment in household durables by the households may be due to their inadequate income. Major part of the income of the tribal people was spent for food consumption and insufficient income may have induced the beneficiaries to invest low on consumer durables.

Table 4.10 shows the value of individual assets to total value of assets. The percentage value of productive assets before joining MGNREGA was 31.22 percent and 63.86 percent among the Periyanaickenpalayam and Karamadai block households respectively. For the sample as a whole it was 59.35 percent. The percentage value of productive assets was significantly higher among the households in Karamadai block, since the proportion of households owning land was higher in Karamadai block (29.8 percent as given in Table 4.10) than Periyanaickenpalayam block (8.3 percent). In contrast the percentage of other non-productive assets was marginally higher among the households in Periyanaickenpalayam block (68.68 percent) than the households in Karamadai block (36.14 percent) before joining MGNREGA.

For the households in Karamadai block, the total value of land in total assets was 62 percent which was significantly higher when compared to households in Periyanaickenpalayam block (30 percent). The percentage value of livestock to the total value of household assets was 1 percent and 2 percent for households in Periyanaickenpalayam block and Karamadai block respectively. The percentage value of houses to the total assets was marginally higher for households in Periyanaickenpalayam (64 percent) than households in Karamadai block (34 percent). The percentage value of household durables to the total value of assets was worked out to be 5 percent for households in Periyanaickenpalayam and 2 percent for households in Karamadai block.

In the post MGNREGA period the value of productive asset increased to 49.32 percent in Periyanaickenpalayam, 63.9 percent in Karamadai block and 58.77 percent for all beneficiaries, while the value of non-productive assets declined to 50.33 percent, 33.39 percent and 40.65 percent respectively. Thus, the value of productive assets has improved in the post MGNREGA scenario. This may be due to inflationary pressures.

TABLE – 4.10

PER HOUSEHOLD AVERAGE VALUE OF PRODUCTIVE ASSETS AND HOUSEHOLD DURABLES

(in Rupees)

S.No	Assets	Periyanaickenpalayam		Karamadai Block		All	
		Block	Block	Block	Block	Block	Block
A.	Productive Assets:	Before MGNREGA	After MGNREGA	Before MGNREGA	After MGNREGA	Before MGNREGA	After MGNREGA
	1. Land	57339.45 (30.30)	181192.66 (49.32)	284166.67 (62.00)	333687.94 (63.91)	185270.00 (54.33)	267200.00 (58.77)
	2. Livestock	1732.72 (0.92)	1270.64 (0.35)	8542.55 (1.86)	3677.3 (0.70)	5581.16 (1.64)	2628.00 (0.58)
	Total of productive assets	59072.17 (31.22)	182463.30 (49.67)	292709.22 (63.86)	337365.24 (64.61)	190851.16 (55.96)	269828.00 (59.35)
B.	House	121513.76 (64.21)	176238.53 (47.98)	155780.14 (33.99)	174911.35 (33.50)	140840.00 (41.30)	175490.00 (38.60)
C.	Household durables	8644.95 (4.57)	8644.95 (2.35)	9869.50 (2.15)	9869.50 (1.89)	9335.60 (2.74)	9335.60 (2.05)
	Sub Total (B+C)	130158.71 (68.78)	184883.48 (50.33)	165649.64 (36.14)	184780.85 (35.39)	150175.60 (44.04)	184825.60 (40.65)
	Grand Total (A+B+C)	189230.88 (100.00)	367346.78 (100.00)	458358.86 (100.00)	522146.09 (100.00)	341026.76 (100.00)	454653.60 (100.00)

Source: Estimation based on field Survey, 2014

Figures within brackets indicate percentage to column total.

The average value of land to total asset value increased to 49 percent for the beneficiaries in Periyanaickenpalayam and 63.91 percent for the beneficiaries in Karamadai block. For sample as a whole it increased to 58.77 percent. Besides land the value of all other assets to total value of asset were lower in the post MGNREGA period compared to pre-MGNREGA period.

VI. Household Expenditure Pattern:

Household expenditure refers to the consumption expenditure incurred by the households on food and non-food items such as clothing, housing, fuel, medicine, education, social and religious functions, entertainments, etc. The consumption expenditure on different food items are generally used as yardstick for measuring standard of living in developing nations. The expenditure pattern of the people has changed significantly in tribal areas. There is a shift in expenditure from food to non-food items. In the food basket, a shift is observed from cereals to non-cereals. Table 4.11 shows the budget share of the households before and after joining the MGNREGA scheme on food and non – food items. It can be observed from the table 4.11 that the expenditure share on food items had shown marginal increase after joining the employment scheme in both the blocks, while the share of non – food items in the total expenditure had marginally declined.

The share of food expenditure to total expenditure increased from 63.37 percent to 65.68 percent in Periyanaickenpalayam block, from 58.45 percent to 60.59 percent in Karamadai block and from 61.09 percent to 63.32 percent for the entire sample beneficiaries. In contrast the share of non-food expenditure declined from 36.63 percent to 34.32 percent in Periyanaickenpalayam block, from 41.55 percent to 39.41 percent in Karamadai block and from 39.91 percent to 36.68 percent for all beneficiaries. The share of food expenditure was marginally higher than non-food expenditure for the tribal households, with the ratio of food to non-food expenditure being 63:37 for households in Periyanaickenpalayam block and 58:42 for households in Karamadai block after joining MGNREGA. Low and irregular income makes these households to lead hand to mouth existence, which in turn makes them spend a larger part of their income on basic needs (food) than on non-food items.

TABLE – 4.11
EXPENDITURE PATTERN IN THE SAMPLE HOUSEHOLDS

(in Rs. / month)

S.No	Items of expenditure	Periyanaickenpalayam block		Karamadai block		All	
		Before MGNREGA	After MGNREGA	Before MGNREGA	After MGNREGA	Before MGNREGA	After MGNREGA
A.	Food expenditure						
(i)	Cereals	261.98 (7.42)	266.20 (6.88)	217.90 (6.17)	221.77 (5.77)	237.12 (6.77)	241.14 (6.31)
(ii)	Pulses	363.02 (10.28)	431.77 (11.16)	350.93 (9.93)	391.03 (10.18)	356.2 (10.17)	408.79 (10.7)
(iii)	Sugar / Jaggery	41.13 (1.16)	41.13 (1.06)	43.3 (1.23)	43.3 (1.13)	42.35 (1.21)	42.35 (1.11)
(iv)	Coffee/ tea and spices	409.22 (11.59)	409.22 (10.58)	354.13 (10.02)	354.13 (9.22)	378.15 (10.79)	378.15 (9.89)
(v)	Ghee / Oil	229.09 (6.49)	231.34 (5.98)	229.76 (6.5)	230.93 (6.01)	229.47 (6.55)	231.11 (6.05)
(vi)	Vegetables / Fruits	685.24 (19.4)	906.49 (23.44)	578.51 (16.37)	754.05 (19.63)	625.05 (17.84)	820.52 (21.47)
(vii)	Milk, Meat, Fish and Egg	248.35 (7.03)	253.85 (6.56)	290.64 (8.23)	331.95 (8.64)	272.2 (7.77)	297.9 (7.79)
	Total of Food Expenditure	2238.03 (63.37)	2540 (65.68)	2065.17 (58.45)	2327.16 (60.59)	2140.54 (61.09)	2419.96 (63.32)
B.	Non - Food expenditure						
(i)	Clothing	346.25 (9.8)	361.32 (9.34)	388.54 (11)	428.71 (11.16)	363.17 (10.36)	388.28 (10.16)
(ii)	Education	107.22 (3.04)	110.14 (2.85)	164.37 (4.65)	165.21 (4.3)	130.08 (3.71)	132.17 (3.46)
(iii)	Medical	6 (0.17)	7 (0.18)	14.5 (0.41)	17.75 (0.46)	9.4 (0.27)	11.3 (0.3)
(iv)	Transport	526.67 (14.91)	526.17 (13.61)	541.5 (15.33)	527 (13.72)	532.6 (15.2)	526.5 (13.78)
(v)	Entertainment	0.33 (0.01)	0.33 (0.01)	21.25 (0.6)	21.75 (0.57)	8.7 (0.25)	8.9 (0.23)
(vi)	Petrol	0 (0)	0 (0)	8.5 (0.24)	10.25 (0.27)	3.4 (0.1)	4.1 (0.11)
(vii)	Tobacco / Pan / Intoxicant	109.17 (3.09)	113.83 (2.94)	125.75 (3.56)	129.25 (3.37)	115.8 (3.3)	120 (3.14)
(viii)	Gas/Kerosene/ Firewood	39.6 (1.12)	39.6 (1.02)	40.41 (1.14)	40.41 (1.05)	39.92 (1.14)	39.92 (1.04)
(ix)	Electricity / Water	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
(x)	Social / Religious ceremonies	158.67 (4.49)	169.03 (4.37)	163.33 (4.62)	173.5 (4.52)	160.53 (4.58)	170.82 (4.47)
	Total of Non - Food Expenditure	1293.91 (36.63)	1327.42 (34.32)	1468.16 (41.55)	1513.83 (39.41)	1363.61 (38.91)	1401.98 (36.68)
	Grand total (A+B)	3531.94 (100)	3867.42 (100)	3533.33 (100)	3840.99 (100)	3504.15 (100)	3821.94 (100)

Source: Estimation based on field Survey, 2014

Figures within brackets indicate percentage to column total.

Item-wise breakup of the food expenditure reveals an interesting feature. The percentage of expenditure on vegetables to total food expenditure was much higher than the percentage of expenditure on cereals for all households indicating a definite shift in the consumption habits among the tribal households. But the reduction in the expenditure on cereals may be due to the fact that these households were able to get both rice and wheat at subsidized price from the PDS and hence their expenditure on these items may have shown a considerable decline. But a significant proportion of the expenditure being devoted to vegetables, pulses and meat in the household's budget indicate a definite shift in the consumption habits of the sample households.

Item-wise analysis of the food expenditure pattern reveals that the households in Periyanaickenpalayam block spent a higher proportion of their total expenditure on vegetables (23 percent) followed by pulses (11 percent), coffee / tea and spices (11 percent), meat (9 percent), cereals (7 percent), ghee/ oil (6 percent) and less on fruits (2 percent), sugar / jaggery (1 percent), fish and egg (1 percent) in the post MGNREGA scenario.

On the other hand, in Karamadai block, vegetables attracted a major portion of the total food expenditure (20 percent) followed by pulses (10 percent), coffee / tea and spices (9 percent), milk, meat, etc., (9 percent), ghee and oil (6 percent), cereals (6 percent), and sugar (1 percent). In both the blocks, there was marginal increase in the proportion of expenditure on pulses (from 10 to 11 percent in Periyanaickenpalayam and 9.9 percent to 10.2 percent in Karamadai block), vegetables and fruits (from 19 to 23 percent in Periyanaickenpalayam and 16 percent to 20 percent in Karamadai) and meat and milk product (from 8.2 to 8.6 percent in Karamadai block alone) after joining MGNREGA.

Among the non-food items the major proportion was allotted to transport (14 percent), followed by clothing (10 percent) and education (3 percent) by all households in the post MGNREGA period. Block-wise, households in Periyanaickenpalayam block allotted a significant portion of their non - food expenditure to transport (14 percent), followed by clothing (10 percent), education (3 percent) and religious ceremonies (3 percent). Similarly the households in Karamadai block spent a large proportion on transport (15 percent), followed by clothing (11 percent), education (4 percent) and

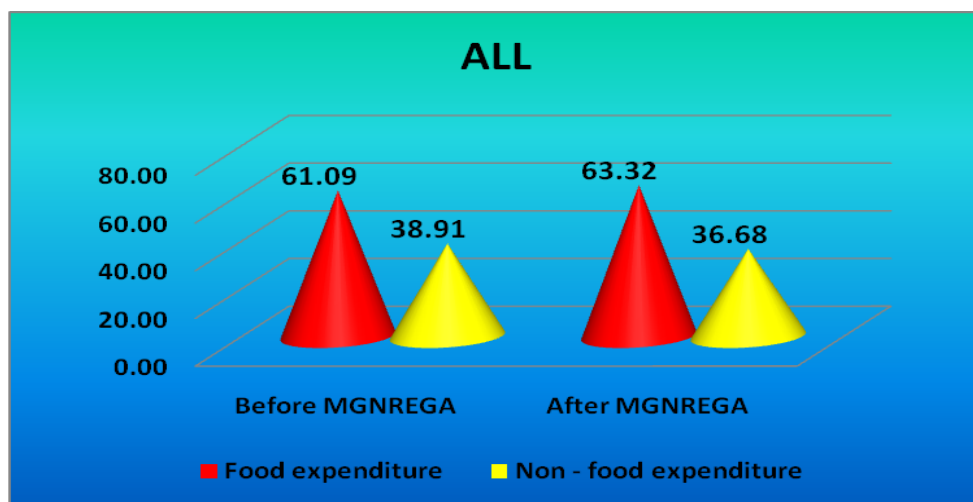
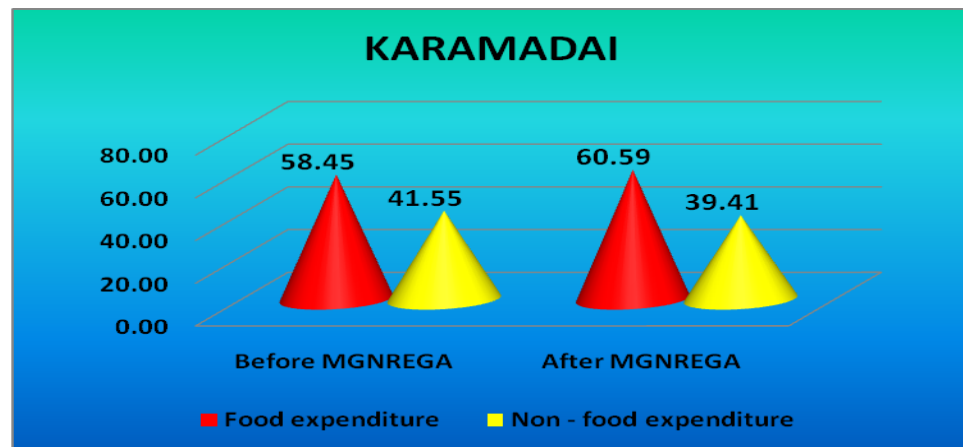
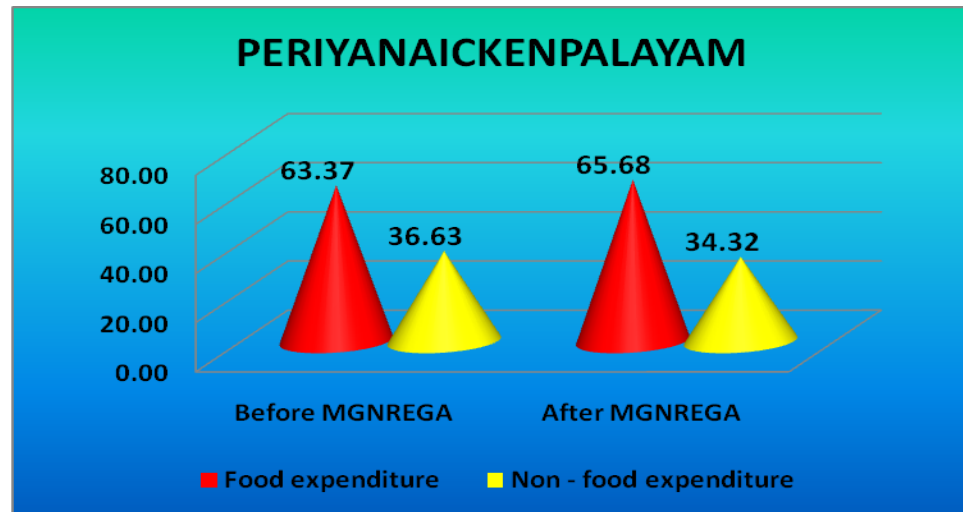
religious ceremonies (3 percent). In both the blocks the proportion of expenditure on non-food items had declined in the post MGNREGA period when compared to pre-MGNREGA period.

The mean monthly household consumption expenditure had increased for the beneficiaries in both the blocks and at macro level in the post MGNREGA scenario with the average total consumption expenditure being marginally higher in Periyanaickenpalayam (Rs.3867.42) than in Karamadai block (Rs. 3504.15). The ratio of food to non – food expenditure which was 61: 39 before the MGNREGA changed to 63: 37 after the MGNREGA for all households.

Block wise, the ratio for Periyanaickenpalayam block changed from 63: 37 to 66: 34 and for Karamadai it changed from 58: 42 to 61: 39. Low and irregular income before joining in the MGNREGA scheme may have forced these households to lead hand - to - month existence. However, the marginal increase in their earning after joining the MGNREGA scheme may have induced these households to spend a larger part of their income on basic needs (food) than on non – food items. This finding is also in line with Engle’s law of consumption which states lower the income; the higher is the proportion of income spent on food items.

FIGURE – 4.1

EXPENDITURE PATTERN IN THE SAMPLE HOUSEHOLDS BEFORE AND AFTER MGNREGA



Gini Co-efficient

An attempt was made to examine whether increments in own income of MGNREGA beneficiaries has reduced inequalities in the distribution of income and expenditure after joining the MGNREGA scheme. The Gini co-efficient of inequality was computed both for the before and after MGNREGA and is presented in Table 4.12 and figures 4.2a to 4.2f.

Table 4.12
GINI CO – EFFICIENT OF INEQUALITY

S.No	Variables	Periyanaickenpalayam Block		Karamadai Block		All	
		Before	After	Before	After	Before	After
1	Own income	0.46	0.14	0.32	0.09	0.39	0.12
2	Family income	0.16	0.15	0.18	0.12	0.20	0.14
3	Consumption expenditure	0.21	0.15	0.17	0.15	0.17	0.10

Source: Estimation based on field Survey, 2014

The analysis of the Gini co - efficient reveals that the incidence of inequalities in own income, family income and consumption expenditure which was 0.39,0.20 and 0.17 respectively before joining the MGNREGA declined to 0.12, 0.14 and 0.10 respectively after joining the MGNREGA for all the households . This pattern was also seen in both the blocks. The Periyanaickenpalayam showed that highest inequalities on the distribution of own income (0.14) and family income (0.15) than Karamadai which recorded a lower value of 0.09 and 0.12 respectively after joining the MGNREGA scheme. In contrast, the Gini co-efficient was equal in both the blocks with respect to consumption expenditure. Thus, there was a significant reduction in inequalities in own income, family income and consumption expenditure after joining the MGNREGA scheme for the sample households.

FIGURE - 4. 2a
GINI CO-EFFICIENT
ANNUAL INCOME BEFORE MGNREGA

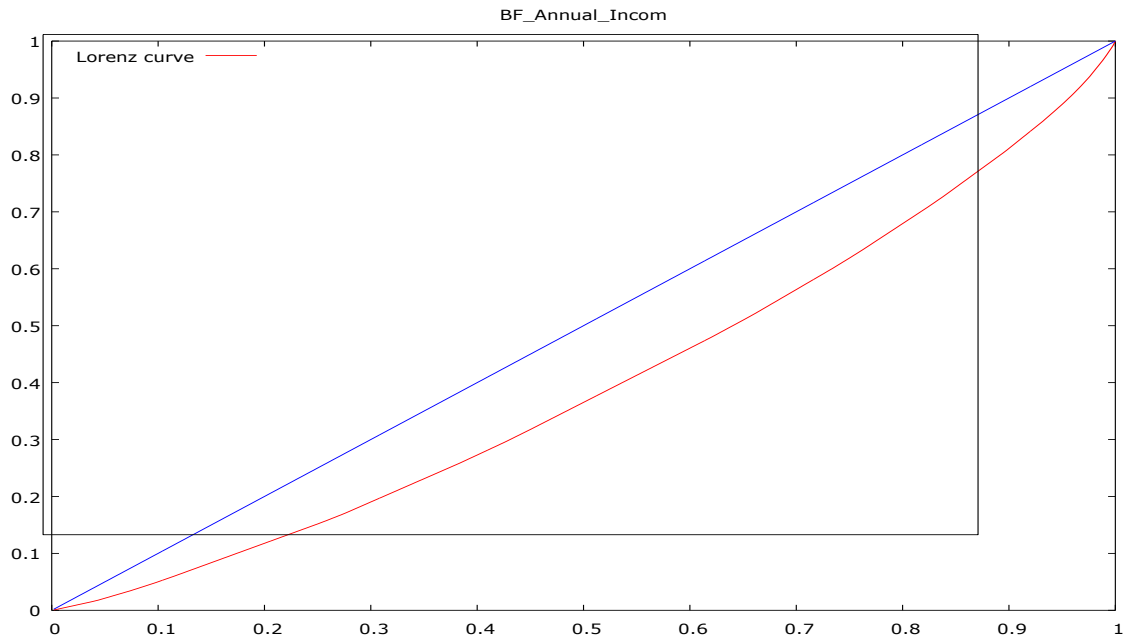


FIGURE - 4. 2b
ANNUAL INCOME AFTER MGNREGA

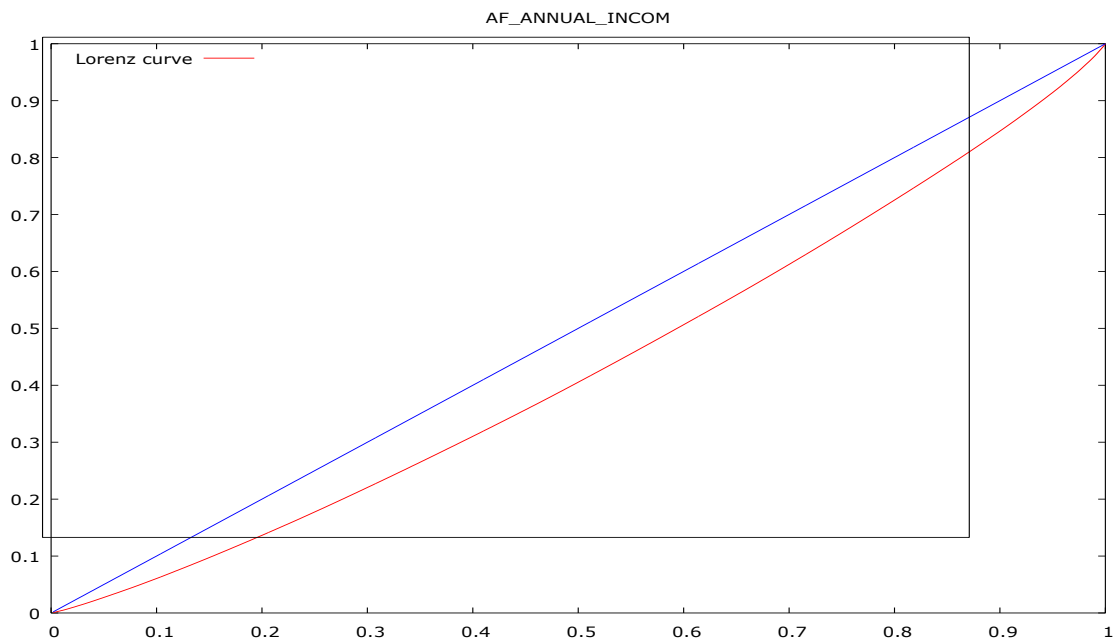


FIGURE - 4. 2c
CONSUMPTION EXPENDITURE BEFORE MGNREGA

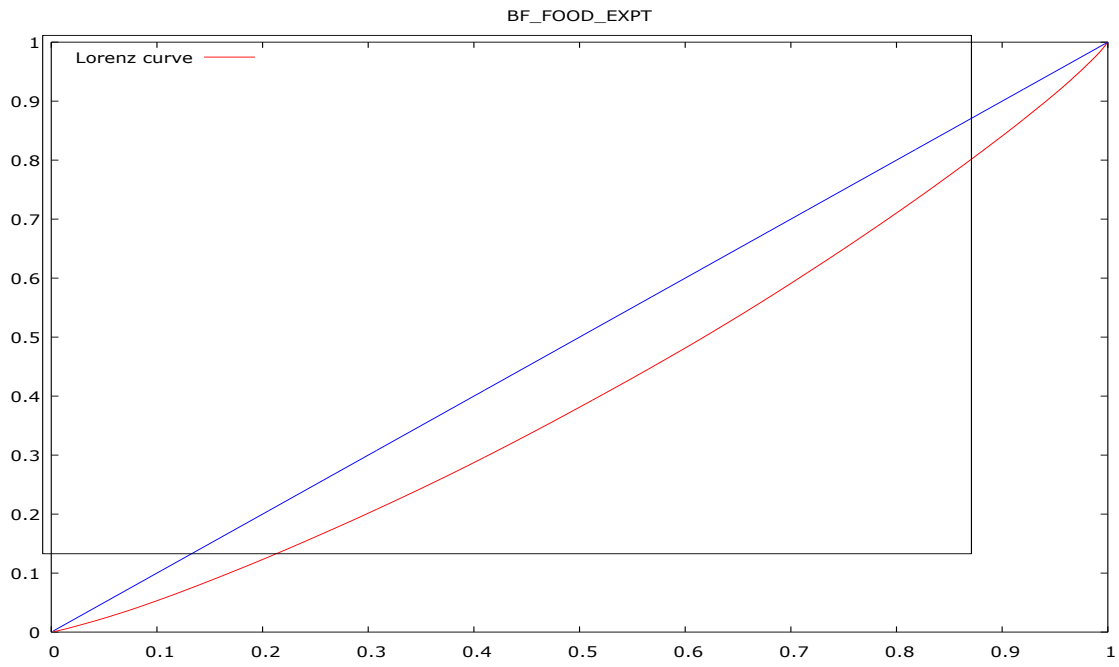


FIGURE - 4.2d
CONSUMPTION EXPENDITURE AFTER MGNREGA

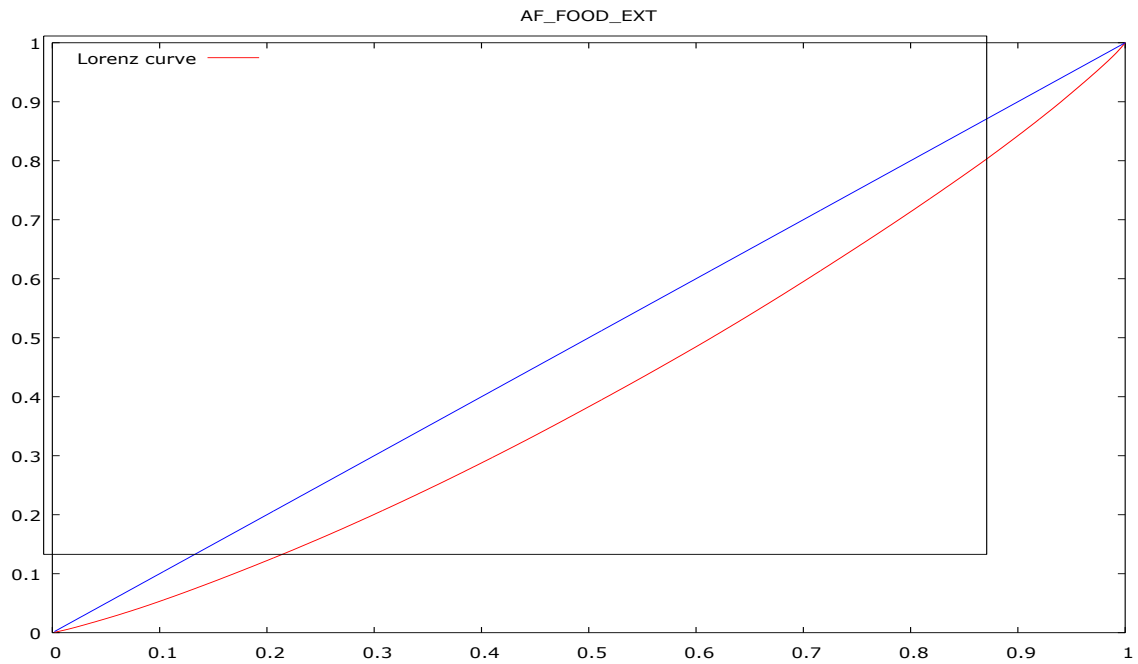


FIGURE – 4.2e
OWN INCOME BEFORE MGNREGA

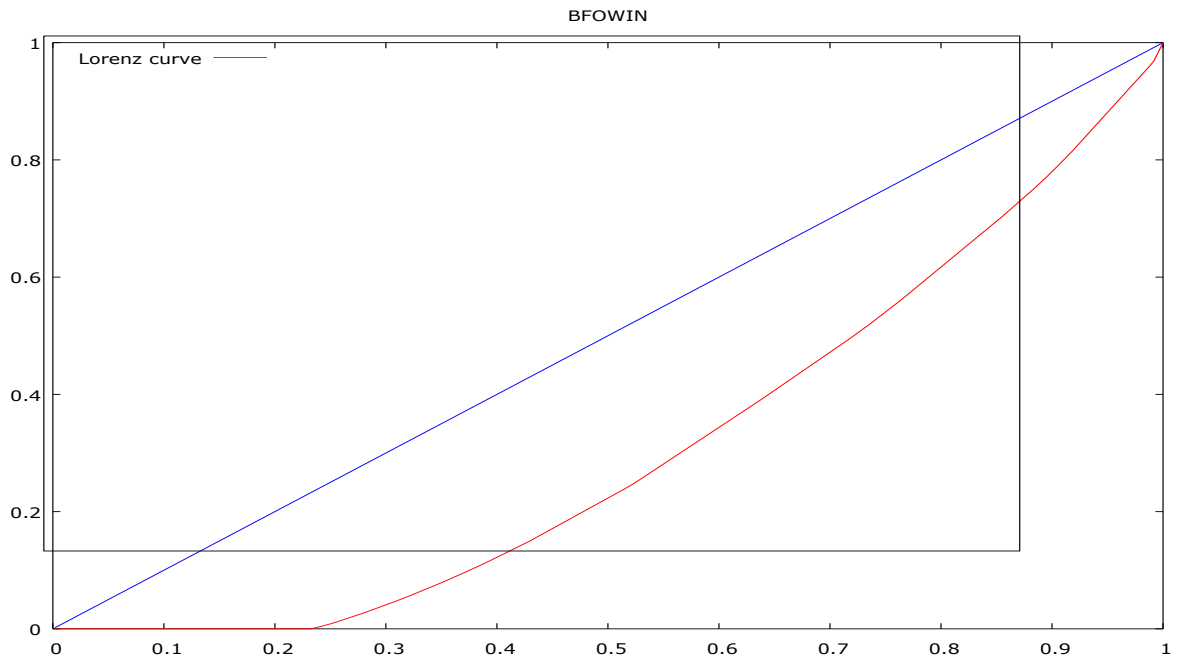
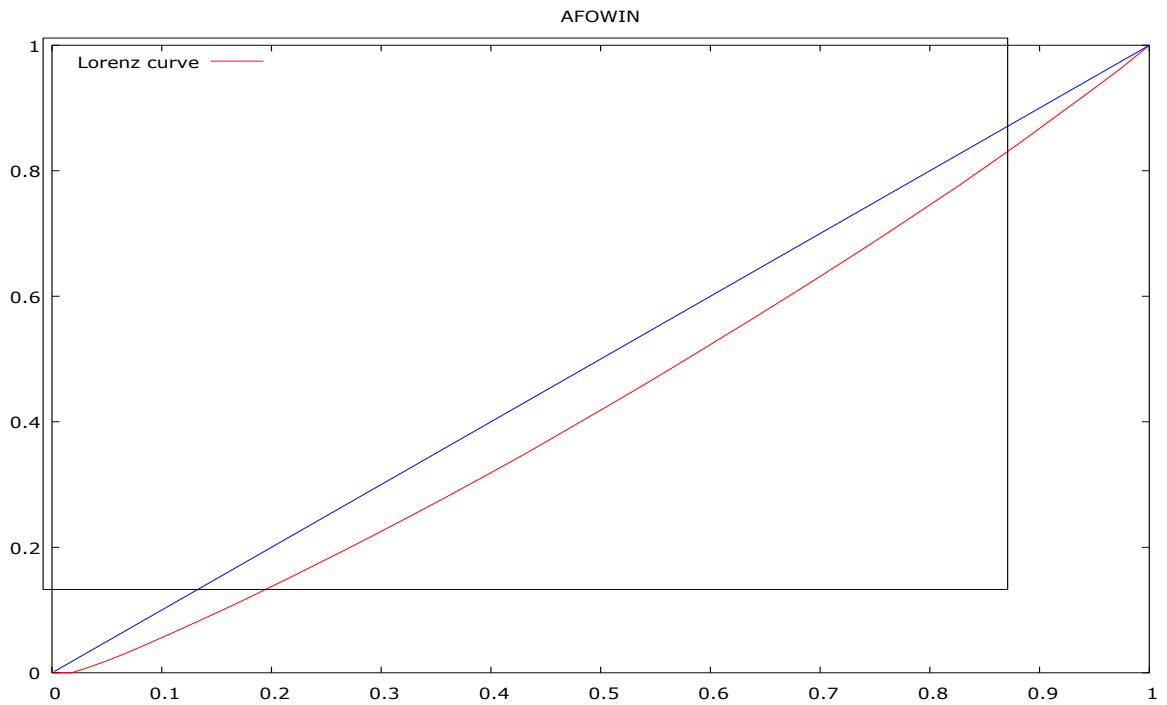


FIGURE – 4.2f
OWN INCOME AFTER MGNREGA



VII. Employment Details

a) Awareness Level about MGNREGA among the Sample Households

The awareness level about the MGNREGA scheme among the sample beneficiaries is shown in Table 4.13.

TABLE – 4.13
AWARENESS LEVEL ABOUT MGNREGA AMONG THE SAMPLE HOUSEHOLDS
(in percentage)

S.No	Particulars	Periyanaickenpalayam Block	Karamadai Block	All
1	Aware about MGNREGA scheme			
	Yes	100	100	100
	No	0	0	0
2	Source of information			
	Gram Panchayat	97.7	90.8	93.8
	Friends and relatives	2.3	9.2	6.2
3	Gram Panchayat approval for work			
	Yes	100	100	100
	No	0	0	0
4	Employment within 15 days of demand			
	Yes	11.9	15.2	13.8
	No	88.1	84.8	86.2
5	Attended Gram sabha meeting			
	Yes	33	22.7	27.2
	No	53.7	74.8	65.6
	Not aware	13.3	2.5	7.2

Source: Estimation based on field Survey, 2014

All the households in the study area were aware about MGNREGA employment scheme and approval from gram Panchayat for employment. About 98 percent of the households Periyanaickenpalayam block and 91 percent of households in Karamadai block got the information through members of Panchayat and the remaining 2 percent of the households in Periyanaickenpalayam and 9 percent in Karamadai blocks had received the information from their friends and relatives.

About 88 percent of the beneficiaries in Periyanaickenpalayam and 85 percent in Karamadai blocks stated that they never got employment within 15 days of demand and often the time period exceeded 15 days. About 33 percent of the households in Periyanaickenpalayam block and 23 percent of households in Karamadai block have attended gram Panchayat meetings. Thus, the awareness level of the tribal households about MGNREGA scheme was high, though there was delay in getting employment.

b) Awareness level about Allowance and Facilities under MGNREGA

The awareness level about the allowances and facilities under MGNREGA scheme among the sample beneficiaries is shown in Table 4.14.

TABLE – 4.14
AWARENESS LEVEL ABOUT ALLOWANCE AND FACILITIES UNDER MGNREGA
(in percentage)

S.No	Particulars	Periyanaickenpalayam Block	Karamadai Block	All
1	Got unemployment allowance			
	Yes	1.3	0.4	0.8
	No	31.7	20.9	25.6
	Not aware	67	78.7	73.6
2	Got extra wages for worked more than 5 km from village			
	Yes	6.4	12.1	9.6
	No	32.1	49.3	41.8
	Not aware	61.5	38.7	48.6
3	Social audit			
	Yes	0	0	0
	No	100	100	100
4	Social audit committee in the village			
	Yes	0	0	0
	No	0	0	0
	Not aware	100	100	100
5	Accidental benefits under MGNREGA			
	Yes	3.2	7.4	5.6
	No	14.2	13.8	14
	Not aware	82.6	78.7	80.4
6	Facilities at worksite			
	Creche	0	0	0
	Drinking water	50	9.6	27.2
	Shades	0	0	0
	First aid	27.1	69.9	51.2
	Drinking water & First aid	22.9	20.6	21.6

Source: Estimation based on field Survey, 2014

Majority of the respondents in Periyanaickenpalayam (67 percent) and Karamadai (79 percent) blocks were not aware about the unemployment allowance. About 32 percent in Periyanaickenpalayam and 21 percent in Karamadai blocks stated that they did not get any allowances and only a negligible 1 percent in Periyanaickenpalayam and 0.4 percent in Karamadai blocks have stated the receipt of such allowances. Thus nearly three fourth of the beneficiaries were ignorant about the unemployment allowances. Similarly, nearly 62 percent of the beneficiaries in Periyanaickenpalayam and 39 percent in Karamadai blocks were not aware about extra payment being made if the work place was 5 kms away from their village. Only 6 percent and 12 percent in Periyanaickenpalayam and Karamadai blocks respectively have stated they received extra payment if the distance from the village to the work place was above 5 kms.

All the beneficiaries irrespective of their location had stated they were aware about social audit but no such committee operated in their village. Similarly 83 percent in Periyanaickenpalayam and 79 percent in Karamadai blocks were not aware about accident benefits under MGNREGA and of the remaining beneficiaries only negligible proportion in Periyanaickenpalayam (3 percent) and Karamadai (7 percent) blocks had received such benefits. Facilities available at worksite under MGNREGA were also inadequate. The availability of drinking water was stated by 50 percent of the beneficiaries in Periyanaickenpalayam while this percent was around 10 percent in Karamadai. Similarly the availability of first aid was stated by 70 percent of the beneficiaries in Karamadai and 27 percent in Periyanaickenpalayam block. The availability of drinking water and first aid were stated by about 23 percent and 21 percent of the beneficiaries in Periyanaickenpalayam and Karamadai blocks respectively. Joginder Singh Saklani (2012) has also reported in his study that the majority of the workers were aware of MGNREGA but they did not know about the different provisions or aspects of the scheme.

c) Year of Joining MGNREGA Scheme

Table 4.15 shows the distribution of respondents on the basis of year of joining in the MGNREGA scheme.

TABLE – 4.15

YEAR OF JOINING MGNREGA SCHEME

Year	Periyanaickenpalayam Block	Karamadai Block	All
2008	66 (30.3)	221 (78.4)	287 (57.4)
2009	3 (1.4)	6 (2.1)	9 (1.8)
2010	31 (14.2)	13 (4.6)	44 (8.8)
2011	2 (0.9)	6 (2.1)	8 (1.6)
2012	116 (53.2)	36 (12.8)	152 (30.4)
Total	218 (100)	282 (100)	500 (100)

Source: Estimation based on field Survey, 2014

Figures within brackets indicate percentage to column total.

Majority (57 percent) of the respondents have joined the MGNREGA scheme during the period 2008, followed by 30 percent during the period 2012 and less than 10 percent during the period 2010. In Periyanaickenpalayam block majority (53 percent) of the respondents joined MGNREGA scheme in more recent period (2012), while in Karamadai block majority (78 percent) of the respondents joined the MGNREGA scheme during the period 2008.

d) Employment Pattern of the Sample Beneficiaries

The occupation distribution of MGNREGA beneficiaries is presented in table 4.16. Occupation-wise, the rural workers are mostly engaged in agriculture and allied activities though secondary and tertiary occupations are slowly emerging as sources of livelihood, depending on nearness to urban centre especially for males.

The proportion of workers engaged in the agricultural activities was 77 percent for all households. The proportion of households engaged in primary activity in Periyanaickenpalayam block (68 percent) was more than in Karamadai block (83 percent). About 2.8 percent of the households in Periyanaickenpalayam block were engaged in non – farm activity, while this proportion was 2.5 percent in Karamadai block. A significant proportion of households in Karamadai (83 percent) and Periyanaickenpalayam (67 percent) blocks had only seasonal job. Over all, only 1.2 percent of households had job throughout the year.

TABLE – 4.16

EMPLOYMENT PATTERN OF THE SAMPLE BENEFICIARIES

(in percentage)

S.No	Particulars	Periyanaickenpalayam Block	Karamadai Block	All
1	Type of employment before MGNREGA :			
	(i) Agricultural casual labour	68.3	83.0	76.6
	(ii) Non - Agricultural casual labour	2.8	2.5	2.6
	(iii) Self employed in farming / livestock farming	2.3	0.0	1
	(iv) Unemployed	26.6	14.5	19.8
2	Nature of employment before MGNREGA :			
	(i) Throughout the year	2.8	0.0	1.2
	(ii) Seasonal	67.4	83.0	76.2
	(iii) Occasional	2.8	2.5	2.6
	(iv) No work	27.1	14.5	20
3	Hours of work before MGNREGA :			
	(i) Less than 5 hours	83.5	90.8	87.6
	(ii) Above 5 hours	16.5	9.2	12.4
4	Days of employment before MGNREGA / year			
	(i) Less than 100 days	57.8	37.9	46.6
	(ii) 100 to 200 days	39.9	62.1	52.4
	(iii) Above 200 days	2.3	0	1.0
5	Days of employment after MGNREGA / year			
	(i) Less than 100 days	28	6.4	15.8
	(ii) 100 to 200 days	32.1	28.4	30
	(iii) Above 200 days	39.9	65.2	54.2

Source: Estimation based on field Survey, 2014

About 2.8 percent of households in Periyanaickenpalayam block and 2.5 percent households in Karamadai block had jobs occasionally only. Thus more than 2/5th of the households in Karamadai and 2/3rd in Periyanaickenpalayam were engaged in seasonal jobs. About 83.5 percent of households in Periyanaickenpalayam block and 90 percent of the households in Karamadai block worked less than 5 hours per day, while 17 percent of households in Periyanaickenpalayam block and 9 percent in Karamadai block worked above 5 hours per day.

Prior to joining MGNREGA scheme nearly 58 percent of the beneficiaries in Periyanaickenpalayam and 38 percent in Karamadai were employed for less than 100

days in a year. About 40 percent of households in Periyanaickenpalayam were employed 100 to 200 days in a year, while this percentage for the beneficiaries in Karamadai was 62.1 percent. Thus, seasonality of their occupation was also reflected in the days of employment in tribal households.

The days of employment after joining the MGNREGA employment scheme reveals that 54 percent of all the households were employed for more than 200 days per year and the percentage block wise being 39.9 percent for Periyanaickenpalayam and 65.2 percent in Karamadai block. Thus the number of days of employment for the households has increased significantly after joining MGNREGA and nearly 2/3rd of the beneficiaries in Karamadai block were employed for more than 200 days.

e) Income Per Year

Table 4.17 shows beneficiary's income per year before and after joining MGNREGA.

**TABLE – 4.17
INCOME PER YEAR IN THE PRE- AND POST- MGNREGA**

S.No	Particulars	Periyanaickenpalayam Block	Karamadai Block	All
1	Before MGNREGA			
	(i) Below 15000	132 (60.6)	110 (39)	242 (48.4)
	(ii) 15000 to 25000	64 (29.4)	125 (44.3)	189 (37.8)
	(iii) Above 25000	22 (10.1)	47 (16.7)	69 (13.8)
2	After MGNREGA			
	(i) Below 15000	67 (30.7)	18 (6.4)	85 (17)
	(ii) 15000 to 25000	34 (15.6)	37 (13.1)	71 (14.2)
	(iii) Above 25000	117 (53.7)	227 (80.5)	344 (68.8)

Source: Estimation based on field Survey, 2014

The analysis of beneficiary's income before joining MGNREGA reveals that about 61 percent of the households in Periyanaickenpalayam and 39 percent of the households in Karamadai belonged to the income bracket of less than Rs.15000 per year. The number of beneficiaries earning more than Rs. 25000 per year was marginally higher in Karamadai block (17 percent) than in Periyanaickenpalayam (10 percent) block. After joining the MGNREGA about 69 percent of all households were earning more than Rs. 25000 per year and block-wise the percentage was 54 percent in

Periyanaickenpalayam block and 81 percent in Karamadai block. Thus incomes earned by the beneficiaries have shown significant appreciation after joining MGNREGA.

f) Details of Wage and Employment under MGNREGA

The details of wage and employment under MGNREGA scheme is presented in table 4. 18. The data relating to days between registration and employment reveals that 92 percent of all the households got employment in less than 15 days. About 95.9 percent of the households in Periyanaickenpalayam got employment in less than 15 days compared to 88.3 percent in Karamadai block. More than 90 percent of the households in both the blocks worked under water conservation work, followed by rural connectivity (3.2 percent in Periyanaickenpalayam and 2.1 percent in Karamadai block respectively).

About 74 percent of the households in Periyanaickenpalayam and 52 percent in Karamadai were employed below 100 days last year under MGNREGA, while 26 percent in Periyanaickenpalayam and 48.2 percent in Karamadai block were employed more than 100 days in previous year. This percentage in the study period was 93.1 and 96.5 respectively for below 100 days and 7 percent and 3.5 percent respectively for more than 100 days. Thus there was definite fall in the days of employment in the study period when compared to previous year.

The data relating to expected days of employment under MGNREGA reveals that about 74 percent of households in Periyanaickenpalayam and 82 percent households in Karamadai stated between 150 to 250 days, followed by above 250 days by 22 percent in Periyanaickenpalayam and 12 percent in Karamadai, below 150 days by 4 percent in Periyanaickenpalayam and 6 percent in Karamadai blocks.

TABLE – 4.18
DETAILS OF EMPLOYMENT UNDER MGNREGA

(in percentage)

S.No	Particulars	Periyanaickenpalayam Block	Karamadai Block	All	
1	Days employment provided	Less than 15 days	95.9	88.3	91.6
		15 to 30 days	1.8	4.3	3.2
		Above 30 days	2.3	7.4	5.2
2	Type of activity under taken	Water conservation	96.8	97.9	97.4
		Rural connectivity	3.2	2.1	2.6
3	Days of Employment given last year under MGNREGA	Below 100 days	74.3	51.8	61.6
		Above 100 days	25.7	48.2	38.4
4	Days of Employment given this year under MGNREGA	Below 100 days	93.1	96.5	95
		Above 100 days	6.9	3.5	5
5	Expected days of employment under MGNREGA	Below 150 days	4.1	6.4	5.4
		150 to 250 days	73.9	81.6	78.2
		Above 250 days	22	12.1	16.4
6	Mode of payment	By cash	0	0	0
		Through bank account transfer	100	100	100
7	Per day wage under MGNREGA	Below Rs. 130	14.7	5	9.2
		Rs. 130 to 140	53.2	33.3	42
		Above Rs. 140	32.1	61.7	48.8
8	Within how many days the payment is received	Within 1 week	100	100	100
		Above 1 week	0	0	0

Source: Estimation based on field Survey, 2014

All the households in the study area received the payment within one week through bank account transfer. About 62 percent of the households in Karamadai block got per day wage above Rs.140, while 53 percent of the households in Periyanaickenpalayam block got per day wage between Rs.130 to Rs.140. The average wage for the beneficiaries in Periyanaickenpalayam block was Rs.140.80 while it was Rs.144.60 in Karamadai and Rs.142.94 for the entire sample. Thus the beneficiaries in Karamadai block received higher wage per day when compare to the beneficiaries in Periyanaickenpalayam block.

g) Level of Satisfaction

Sustainability of MGNREGA scheme depends on the level of satisfaction experienced by the beneficiaries with the functioning of the MGNREGA. Table 4.19a shows the distribution of the respondents with respect to the overall satisfaction of MGNREGA scheme.

**TABLE 4.19a
OVERALL SATISFACTION LEVEL ABOUT MGNREGA ACTIVITIES AMONG THE
SAMPLE HOUSEHOLDS**

Satisfaction level	Periyanaickenpalayam Block	Karamadai Block	All
Yes	203 (93.1)	272 (96.5)	475 (95)
No	15 (6.9)	10 (3.5)	25 (5.0)
Total	218 (100)	282 (100)	500 (100)

Source: Estimation based on Field Survey, 2014
Figures within parenthesis indicate column percentage.

About 475 respondents (95 percent) expressed that they were satisfied with the functioning of MGNREGA activities. The remaining 5 percent were not satisfied with the functioning of MGNREGA activities. The proportion of non – satisfied respondents was higher in Periyanaickenpalayam block (7 percent) compared to Karamadai block (4 percent).

Table 4.19b shows the level of satisfaction of the beneficiaries with respect to the various aspects of MGNREGA activities.

TABLE 4.19b

SATISFACTION WITH VARIOUS ASPECTS OF MGNREGA ACTIVITY
(in percentage)

S.No	MGNREGA Activity	Satisfaction level	Periyanaickenpalayam Block	Karamadai Block	All
1	Number of working days	Fully satisfied	0.00	0.40	0.20
		Not satisfied	61.00	78.00	70.60
		Partially satisfied	39.00	21.60	29.20
2	MGNREGA wage rate (Amount/ Any delays)	Fully satisfied	1.40	0.00	0.60
		Not satisfied	61.00	69.50	65.80
		Partially satisfied	37.60	30.50	33.60
3	Working hours in MGNREGA	Fully satisfied	29.80	74.80	55.20
		Not satisfied	2.30	0.40	1.20
		Partially satisfied	67.90	24.80	43.60
4	Distribution of Job card	Fully satisfied	87.60	95.70	92.20
		Not satisfied	0.00	0.00	0.00
		Partially satisfied	12.40	4.30	7.80
5	Mode of payment	Fully satisfied	48.60	61.70	56.00
		Not satisfied	12.40	15.20	14.00
		Partially satisfied	39.00	23.00	30.00
6	Nature of work	Fully satisfied	84.90	96.10	91.20
		Not satisfied	0.00	0.00	0.00
		Partially satisfied	15.10	3.90	8.80
7	Job security	Fully satisfied	28.90	51.40	41.60
		Not satisfied	25.70	38.70	33.00
		Partially satisfied	45.40	9.90	25.40
8	Location of work	Fully satisfied	87.20	91.10	89.40
		Not satisfied	4.10	3.20	3.60
		Partially satisfied	8.70	5.70	7.00

Source: Estimation based on Field Survey, 2014

The data relating to satisfaction level about the number of working days reveals that about 61 percent of households in Periyanaickenpalayam and 78 percent in Karamadai were not satisfied, while 39 percent in Periyanaickenpalayam and 22 percent in Karamadai were partially satisfied. More than 60 percent of the households in both the blocks were not satisfied with wage rate; about 38 percent of households in Periyanaickenpalayam and 31 percent of the households in Karamadai were partially satisfied with the wage rate.

About 74.8 percent of the households in Karamadai block were fully satisfied with working hours under MGNREGA compared to Periyanaickenpalayam (29.8 percent). The data relating to distribution of job card reveals that more than 80 percent of the households in both blocks were fully satisfied and only 12.4 percent in Periyanaickenpalayam block and 4.3 percent in Karamadai block were partially satisfied.

About 62 percent of the households in Karamadai block were fully satisfied with the mode of payment under MGNREGA than Periyanaickenpalayam block (49 percent), while 39 percent of the households in Periyanaickenpalayam and 23 percent of the households in Karamadai block were partially satisfied and the remaining 12 percent and 15 percent of the households in Periyanaickenpalayam and Karamadai block were not satisfied.

Around 96 percent of the households in Karamadai and 85 percent in Periyanaickenpalayam were fully satisfied with the nature of work and the remaining 4 percent in Karamadai and 15 percent in Periyanaickenpalayam blocks were partially satisfied.

Regarding job security 51 percent of the households in Karamadai and 29 percent of the households in Periyanaickenpalayam were fully satisfied, while about 39 percent of the households in Karamadai and 26 percent of the households in Periyanaickenpalayam were not satisfied and remaining 10 percent of the households in Karamadai and 45 percent of the households in Periyanaickenpalayam were partially satisfied.

More than 80 percent of the households in both the blocks were fully satisfied with location of work under MGNREGA. Only 4 percent in Periyanaickenpalayam and 3 percent in Karamadai blocks were not satisfied. At the macro level (taking both the blocks together) beneficiaries have expressed full satisfaction with distribution of job cards (92 percent), nature of work (91 percent) and location of work (89 percent). More than 50 percent were fully satisfied with working hours (55 percent), mode of payment (56 percent) and to lesser extent on job security (42 percent). However their level of dissatisfaction was more for number working days (71 percent) and wage rate (66 percent). Thus on the two key aspects of MGNREGA activities the beneficiaries were highly dissatisfied.

VIII. Levels of Living of Tribal Households

In development economics, poverty is usually discussed in terms of consumption expenditure, minimum calorie intake norms and income. However, there is a general perception that one dimensional measurement of poverty is an inadequate basis for identification of the poor.

It has been suggested that a more reasonable way of identifying the poor is to use a number of indicators rather than income. Hence in present study the Quality of Life Index (QLI) of the tribal households were constructed by using 17 indicators namely education (EDU), occupation (OCC), annual income (AI), annual per capita income (API), calorie intake (CAL), annual food expenditure (AFE), annual expenditure on clothing per person (AECPP), ownership pattern of house (OWPH), type of housing (TH), living area per person (LA), room per person (RPP), size of family (SF), source of drinking water (SDW), drainage facility (DF), toilet facility (TF), fuel availability (FA) and assets possessed in value terms (ASST) To make the poverty yardstick a more realistic one, these indicators are measured in terms of their relative position on the composite index, the details of which are discussed in detail in chapter III.

The distribution of the households on the basis of the composite index is shown in table 4.20 and figure 4.3.

TABLE - 4.20
DISTRIBUTION OF THE HOUSEHOLDS ON THE BASIS OF COMPOSITE INDEX

Composite index	Periyanaickenpalayam Block	Karamadai Block	All
Less than 30	6 (2.8)	-	6 (1.2)
30 – 40	42 (19.3)	81 (28.7)	123 (24.6)
40 – 50	159 (72.9)	189 (67.0)	348 (69.6)
50 and above	11 (5.0)	12 (4.3)	23 (4.6)
	218	282	500

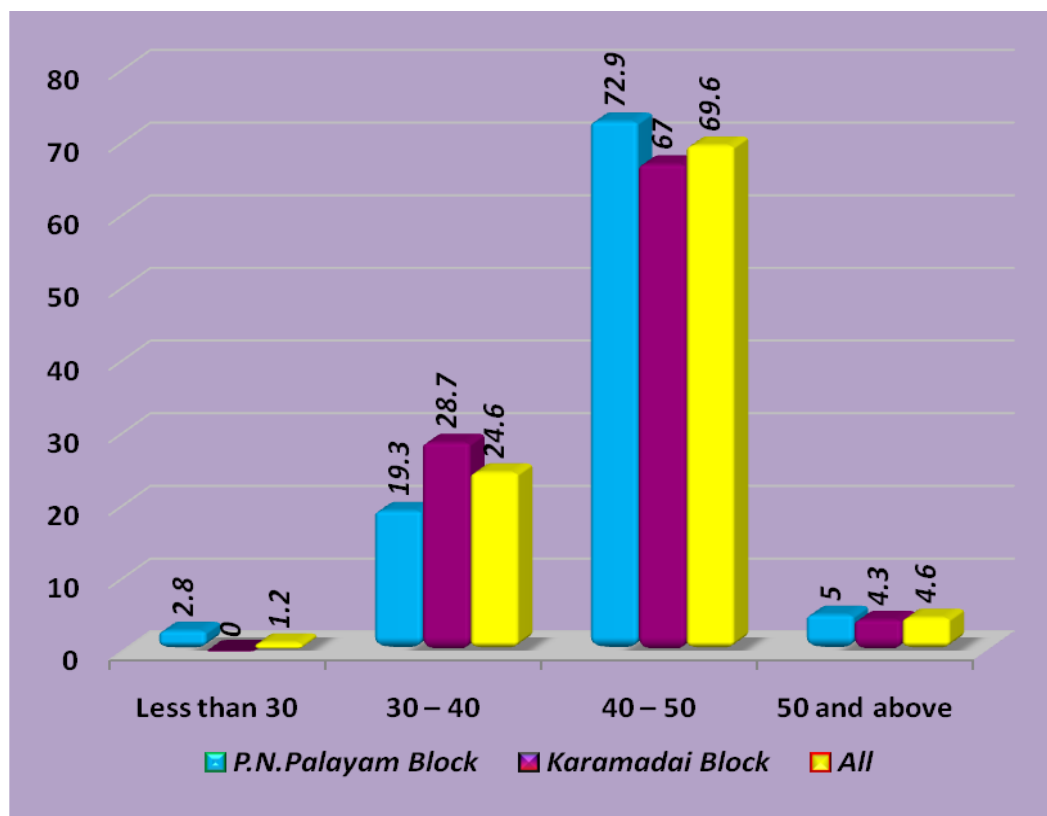
Source: Estimation based on field survey, 2014

Majority (73 percent) of the households in Periyanaickenpalayam were in the index range of 40 – 50, followed by 19 percent in the range of 30 – 40 and 5 percent in the range of 50 and above. In Karamadai 67 percent of the households had a composite index of 40 – 50, nearly 29 percent between 30 -40 and none

below 30. A significant proportion (70 percent) of the households was in the range of 40 – 50, while this proportion was highest in Periyanaickenpalayam (73 percent) when compared to Karamadai (67 percent). Thus, the concentration of the MGNREGA beneficiaries in both the blocks were in the middle range of the composite index and the quality of life index of the households in Karamadai was marginally lower when compared to Periyanaickenpalayam.

FIGURE 4.3

DISTRIBUTION OF HOUSEHOLDS ON THE BASIS OF COMPOSITE INDEX



Regression Analysis

An attempt was made to determine whether there is any statistical relationship between quality of life index and per capita income. The income – index relationship was estimated by using the following functional relationship:

$$Y = e^{b_0 + b_1X_i + u_i}$$

Where Y is the Tribal quality of life index,

X_i is annual per capita income of the ith household;

b₀ is intercept;

b₁ is parameters estimate; and

u_i is disturbance term.

Table 4.21 shows the regression results of household income on Tribal quality of life index.

TABLE – 4.21
REGRESSION RESULTS OF HOUSEHOLD ANNUAL PER CAPITA INCOME ON TQLI

Blocks	Variable	Regression Coefficient	Standard error	t value	R ²	F value
Periyanaickenpalayam Block	Intercept	2.661	0.072	37.147*	0.459*	183.484
	Annual per capita income	0.231	0.018	13.546*		
Karamadai Block	Intercept	2.713	0.058	46.405*	0.466*	244.456
	Annual per capita income	0.228	0.015	15.635*		
All	Intercept	2.741	0.045	61.283*	0.442*	393.920
	Annual per capita income	0.220	0.011	19.847*		

Source: Estimation based on Field Survey, 2014

*Significant at 1 percent level.

The explanatory power of the model was 0.46, 0.47, and 0.44 for Periyanaickenpalayam, Karamadai and for the sample as whole signifying nearly 44 percent of the variations in TQLI were explained by annual per capita income. The coefficient of annual per capita income was positive and significant at 1 percent level for both blocks and at the aggregate level indicating that the per capita income was positively responsive to TQLI (i.e.) when the annual per capita income increased by 1 unit, QLI increased by 0.231 units for Periyanaickenpalayam, 0.228 units for Karamadai and 0.220 units for the sample as a whole. Hence it can be concluded that the QLI was significantly associated with per capita income and any improvement in per capita income will change the number of poor households as given by the measure of TQLI.

IX. Discriminant Analysis

Discriminant analysis was used to understand the discriminating power of each variables used in the construction of quality of life index. The analysis would provide the relative importance of different variables in the order of merit based on their discriminating power among the sample households being compared. The classification of the households was done on the basis of composite quality of life index; the first group consisted of all households whose index point was much below the threshold level (average 42.80) and labeled as households with low QLI (HH_{LQLI}) and the second group consisted of all those whose composite index was above the average and labeled as households with high QLI (HH_{HQLI}). The factors chosen for the analysis were education (EDU), occupation (OCC), annual income (AI), annual per capita income (API), annual food expenditure (AFE), annual expenditure on clothing per person (AECPP), type of housing (TH), living area per person (LA), room per person (RPP), and assets possessed in value terms (ASST).

Tables 4.22a, 4.22b and 4.22c summarises the group descriptive statistics and test of equality for the variables for Periyanaickenpalayam and Karamadai blocks.

TABLE – 4.22a

GROUP STATISTICS AND TESTS OF EQUALITY - PERIYANAICKENPALAYAM

Variables	EDU	OCC	AI	API	AFE	AECP	TH	LA	RPP	AST
Group										
GROUP MEANS										
Below TQLI	1.1915	1.3085	2.2872	3.9149	3.5319	2.7340	2.0532	3.4574	1.2766	3.2340
Above TQLI	1.2258	1.3548	2.7742	5.3548	4.7016	3.5081	2.3790	5.2339	1.6774	3.8145
ALL	1.2110	1.3349	2.5642	4.7339	4.1972	3.1743	2.2385	4.4679	1.5046	3.5642
GROUP STANDARD DEVIATIONS										
Below TQLI	0.5138	0.6051	1.06380	1.43429	2.26095	1.45303	0.4722	1.7454	0.4952	1.4250
Above TQLI	0.5386	0.4804	1.3545	0.8760	1.7806	1.5061	0.5194	1.2105	0.7048	1.7501
All	0.5271	0.5369	1.2583	1.3519	2.0797	1.5291	0.5241	1.7070	0.6529	1.6399
Wilk's Lambda	0.999	0.998	0.963	0.720	0.922	0.937	0.905	0.733	0.907	0.969
F-Ratio	0.226	0.397	8.276	83.814	18.260	14.556	22.741	78.622	22.114	6.880
Sig.	0.635	0.529	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.009

Source: Estimation based on Field Survey, 2014

TABLE 4.22b
GROUP STATISTICS AND TESTS OF EQUALITY - KARAMADAI

Variables										
Group	EDU	OCC	AI	API	AFE	AACP	TH	LA	RPP	AST
GROUP MEANS										
Below TQLI	1.1095	1.1241	1.8102	3.2482	2.2628	4.2263	2.2628	4.4380	1.1606	3.6642
Above TQLI	1.3931	1.0966	2.2897	4.9034	4.1517	4.2414	2.4897	5.3172	1.5172	4.4759
ALL	1.2553	1.1099	2.0567	4.0993	3.2340	4.2340	2.3794	4.8900	1.3440	4.0816
GROUP STANDARD DEVIATIONS										
Below TQLI	0.4318	0.4766	0.7909	1.1806	2.2271	1.5950	0.5593	1.3872	0.5178	1.5063
Above TQLI	0.8190	0.3787	1.0336	0.9670	2.2278	1.4920	0.5416	0.9910	0.6466	1.6291
All	0.6739	0.4285	0.9528	1.3567	2.4163	1.5402	0.5609	1.2761	0.6131	1.6196
Wilk's Lambda	0.956	0.999	0.937	0.627	0.847	1.000	0.959	0.881	0.915	0.937
F-Ratio	13.010	0.290	18.978	166.690	50.661	0.007	11.976	37.828	25.953	18.811
Sig.	0.000	0.591	0.000	0.000	0.000	0.935	0.001	0.000	0.000	0.000

Source: Estimation based on Field Survey, 2014

TABLE 4.22c
GROUP STATISTICS AND TESTS OF EQUALITY - ALL

Variables	EDU	OCC	AI	API	AFE	AECP	TH	LA	RPP	AST
Group										
GROUP MEANS										
Below TQLI	1.1429	1.1991	2.0043	3.5195	2.7792	3.6190	2.1775	4.0390	1.2078	3.4892
Above TQLI	1.3160	1.2156	2.5130	5.1115	4.4052	3.9033	2.4387	5.2788	1.5911	4.1710
ALL	1.2360	1.2080	2.2780	4.3760	3.6540	3.7720	2.3180	4.7060	1.4140	3.8560
GROUP STANDARD DEVIATIONS										
Below TQLI	0.4676	0.5391	0.9395	1.3281	2.3217	1.7023	0.5346	1.6133	0.5109	1.4858
Above TQLI	0.7075	0.4468	1.2144	0.9515	2.0487	1.5399	0.5334	1.0963	0.6775	1.7149
All	0.6141	0.4911	1.1239	1.3894	2.3232	1.6215	0.5491	1.4927	0.6352	1.6470
Wilk's Lambda	0.980	1.000	0.949	0.673	0.878	0.992	0.944	0.828	0.909	0.957
F-Ratio	10.059	0.140	26.771	241.962	69.200	3.842	29.738	103.33	49.672	22.203
Sig.	0.002	0.709	0.000	0.000	0.000	0.051	0.000	0.000	0.000	0.000

Source: Estimation based on Field Survey, 2014

In profiling the two groups, except education and occupation, all the remaining variables had the largest differences in group means for the MGNREGA beneficiaries in Periyanaickenpalayam block and also at the aggregate level. The Wilks' lambda and univariate ANOVA used to assess the significance between means of the independent variables for the two groups indicate that excepting education and occupation annual income, annual per capita income, type of housing, living area per person, room per person and asset possession were the variables which showed significant univariate differences between the groups, In contrast for the MGNREGA beneficiaries in Karamadai, except occupation and average expenditure on clothing per person, all the other variables had the largest differences in group means. This is also substantiated by Wilk's lambda and univariate ANOVA. To identify which of these variables, plus any others, best discriminate between the groups, the discriminant function was estimated by using step-wise procedure. This procedure begins with all the variables excluded from the model and then selects the variables that shows statistically significant differences across the group and provides the largest Mahalanobis distance (D^2) between the groups. The findings are summarized in tables 4.23a, 4.23b and 4.23c.

TABLE 4.23a

WILKS' LAMBDA AND MAHALANOBIS D^2 STATISTICS - PERIYANAICKENPALAYAM

Step		Tolerance	F to Remove	Wilks' Lambda	Min. D Squared	Between Groups
1	Annual per capita income	1.0000	83.8145			
2	Annual per capita income	0.9968	68.2838	0.7331	1.4700	HH LQLI and HH HQLI
	Living area per person	0.9968	63.3779	0.7204	1.5680	HH LQLI and HH HQLI
3	Annual per capita income	0.9460	81.7078	0.6880	1.8320	HH LQLI and HH HQLI
	Living area per person	0.9959	51.7477	0.6183	2.4940	HH LQLI and HH HQLI
	Type of house	0.9473	25.1487	0.5564	3.2210	HH LQLI and HH HQLI
4	Annual per capita income	0.8738	44.0361	0.5586	3.1920	HH LQLI and HH HQLI
	Living area per person	0.9282	63.7194	0.6014	2.6770	HH LQLI and HH HQLI
	Type of house	0.8929	33.1783	0.5350	3.5110	HH LQLI and HH HQLI
	Annual food expenditure	0.7850	16.0965	0.4979	4.0740	HH LQLI and HH HQLI

Cont...

Step		Tolerance	F to Remove	Wilks' Lambda	Min. D Squared	Between Groups
5	Annual per capita income	0.8537	49.5552	0.5258	3.6430	HH LQLI and HH HQLI
	Living area per person	0.9073	69.7311	0.5664	3.0930	HH LQLI and HH HQLI
	Type of house	0.8912	32.3867	0.4913	4.1830	HH LQLI and HH HQLI
	Annual food expenditure	0.7760	18.4636	0.4633	4.6790	HH LQLI and HH HQLI
	Assets possessed in value terms	0.9411	18.2686	0.4629	4.6870	HH LQLI and HH HQLI
6	Annual per capita income	0.7478	28.6693	0.4717	4.5240	HH LQLI and HH HQLI
	Living area per person	0.8971	60.2562	0.5339	3.5270	HH LQLI and HH HQLI
	Type of house	0.8875	33.2377	0.4807	4.3640	HH LQLI and HH HQLI
	Annual food expenditure	0.6389	24.1901	0.4629	4.6870	HH LQLI and HH HQLI
	Assets possessed in value terms	0.9283	20.0844	0.4548	4.8420	HH LQLI and HH HQLI
	Room per person	0.7366	5.5319	0.4262	5.4390	HH LQLI and HH HQLI
7	Annual per capita income	0.7375	30.5187	0.4669	4.6120	HH LQLI and HH HQLI
	Living area per person	0.8968	57.8225	0.5199	3.7300	HH LQLI and HH HQLI
	Type of house	0.8677	35.8023	0.4772	4.4260	HH LQLI and HH HQLI
	Annual food expenditure	0.6389	23.8033	0.4539	4.8600	HH LQLI and HH HQLI
	Assets possessed in value terms	0.9143	21.7721	0.4500	4.9380	HH LQLI and HH HQLI
	Room per person	0.7354	5.7847	0.4189	5.6040	HH LQLI and HH HQLI
	Occupation	0.9533	3.9265	0.4153	5.6870	HH LQLI and HH HQLI

Cont.....

Step		Tolerance	F to Remove	Wilks' Lambda	Min. D Squared	Between Groups
8	Annual per capita income	0.6418	17.7264	0.4339	5.2700	HH LQLI and HH HQLI
	Living area per person	0.8520	62.3391	0.5193	3.7400	HH LQLI and HH HQLI
	Type of house	0.8641	36.6069	0.4700	4.5550	HH LQLI and HH HQLI
	Annual food expenditure	0.5971	16.4838	0.4315	5.3220	HH LQLI and HH HQLI
	Assets possessed in value terms	0.8987	23.6691	0.4453	5.0330	HH LQLI and HH HQLI
	Room per person	0.6608	8.4843	0.4162	5.6660	HH LQLI and HH HQLI
	Occupation	0.9071	5.5729	0.4107	5.7980	HH LQLI and HH HQLI
	Annual income	0.5441	4.0254	0.4077	5.8690	HH LQLI and HH HQLI
9	Annual per capita income	0.5665	8.6267	0.4041	5.9570	HH LQLI and HH HQLI
	Living area per person	0.8452	54.2129	0.4892	4.2190	HH LQLI and HH HQLI
	Type of house	0.8613	37.2061	0.4574	4.7910	HH LQLI and HH HQLI
	Annual food expenditure	0.5190	22.2399	0.4295	5.3650	HH LQLI and HH HQLI
	Assets possessed in value terms	0.8986	22.5114	0.4300	5.3540	HH LQLI and HH HQLI
	Room per person	0.6608	8.1918	0.4033	5.9770	HH LQLI and HH HQLI
	Occupation	0.8969	6.6578	0.4005	6.0480	HH LQLI and HH HQLI
	Annual income	0.4676	7.8179	0.4026	5.9940	HH LQLI and HH HQLI
	Annual expenditure on clothing	0.5724	6.4049	0.4000	6.0600	HH LQLI and HH HQLI

Source: Estimation based on Field Survey, 2014

For Periyanaickenpalayam, the first variable to enter the model in the stepwise procedure was annual per capita income. In step 2, living area per person was the next variable to enter the model which improves the discrimination between the groups as evidence by the decrease in Wilks' Lambda from 0.733 to 0.720 and a highest Mahalanobis D^2 (1.568). The next variable to enter the model in stage III was type of house which caused a further fall in Wilks' Lambda to 0.556 from 0.720 and had a maximum D^2 value of 3.221. In stage IV, the variable to enter was annual food expenditure which further improved

discrimination, as evidenced by the decrease in Wilks' Lambda value to 0.498 from 0.556 and had a maximum D^2 value of 4.074. In stage V, assets possessed in value terms was the next variable to enter the model which further improves discrimination as evidenced by the decrease in Wilks' Lambda value (to 0.463 from 0.498) and had a maximum D^2 value 4.687. The next variable to enter the model in stage VI was room per person which caused a further fall in Wilks' Lambda to 0.426 from 0.463 and had a maximum D^2 value of 5.439. In stage VII, the variable to enter was occupation which further improved discrimination, as evidenced by the decrease in Wilks' Lambda value from 0.426 to 0.415 and had a maximum D^2 value of 5.687. In stage VIII, annual income was the next variable to enter the model which further improves discrimination as evidenced by the decrease in Wilks' Lambda value (from 0.415 to 0.408) and had a maximum D^2 value 5.869. In stage IX, the last variable to enter was annual expenditure on clothing per person which further improved discrimination, as evidenced by the decrease in Wilks' Lambda value (from 0.408 to 0.400) and had a maximum D^2 value 6.060. Thus, the estimation procedure stops with nine variables viz., annual per capita income, living area per person, type of housing, annual food expenditure, assets possessed in value terms, room per person, occupation, annual income and annual expenditure on clothing.

TABLE 4.23b
WILKS' LAMBDA AND MAHALANOBIS D^2 STATISTICS - KARAMADAI

Step		Tolerance	F to Remove	Wilks' Lambda	Min. D Squared	Between Groups
1	Annual per capita income	1.0000	166.6902			
2	Annual per capita income	0.9101	207.2167	0.9370	0.2670	HH LQLI and HH HQLI
	Assets possessed in value terms	0.9101	46.2520	0.6268	2.3660	HH LQLI and HH HQLI
3	Annual per capita income	0.8836	220.7435	0.8898	0.4920	HH LQLI and HH HQLI
	Assets possessed in value terms	0.8864	53.6985	0.5918	2.7420	HH LQLI and HH HQLI
	Type of house	0.9582	23.3848	0.5377	3.4180	HH LQLI and HH HQLI
4	Annual per capita income	0.8637	228.2370	0.8198	0.8740	HH LQLI and HH HQLI
	Assets possessed in value terms	0.8592	63.0895	0.5518	3.2280	HH LQLI and HH HQLI
	Type of house	0.8924	35.2955	0.5067	3.8690	HH LQLI and HH HQLI
	Education	0.9115	28.6628	0.4960	4.0390	HH LQLI and HH HQLI

Cont...

Step		Tolerance	F to Remove	Wilks' Lambda	Min. D Squared	Between Groups
5	Annual per capita income	0.8585	179.3283	0.6925	1.7650	HH LQLI and HH HQLI
	Assets possessed in value terms	0.8584	55.1151	0.5036	3.9180	HH LQLI and HH HQLI
	Type of house	0.8639	42.5810	0.4845	4.2280	HH LQLI and HH HQLI
	Education	0.9109	25.2092	0.4581	4.7010	HH LQLI and HH HQLI
	Annual food expenditure	0.9509	19.5148	0.4495	4.8690	HH LQLI and HH HQLI
6	Annual per capita income	0.8515	168.3906	0.5913	2.7470	HH LQLI and HH HQLI
	Assets possessed in value terms	0.8466	59.0223	0.4455	4.9480	HH LQLI and HH HQLI
	Type of house	0.8445	49.6389	0.4329	5.2060	HH LQLI and HH HQLI
	Education	0.9108	21.1494	0.3950	6.0890	HH LQLI and HH HQLI
	Annual food expenditure	0.4715	59.4177	0.4460	4.9380	HH LQLI and HH HQLI
	Annual expenditure on clothing	0.4851	39.7691	0.4198	5.4940	HH LQLI and HH HQLI
7	Annual per capita income	0.8034	102.0702	0.4724	4.4390	HH LQLI and HH HQLI
	Assets possessed in value terms	0.8439	58.8655	0.4182	5.5310	HH LQLI and HH HQLI
	Type of house	0.8142	58.3233	0.4175	5.5460	HH LQLI and HH HQLI
	Education	0.8997	24.1754	0.3746	6.6370	HH LQLI and HH HQLI
	Annual food expenditure	0.4509	70.0438	0.4322	5.2220	HH LQLI and HH HQLI
	Annual expenditure on clothing	0.4831	32.9331	0.3856	6.3340	HH LQLI and HH HQLI
	Living area per person	0.8014	17.9418	0.3667	6.8630	HH LQLI and HH HQLI

Cont...

Step		Tolerance	F to Remove	Wilks' Lambda	Min. D Squared	Between Groups
8	Annual per capita income	0.7837	109.4056	0.4649	4.5750	HH LQLI and HH HQLI
	Assets possessed in value terms	0.8231	64.6432	0.4105	5.7090	HH LQLI and HH HQLI
	Type of house	0.7972	63.5024	0.4091	5.7420	HH LQLI and HH HQLI
	Education	0.8991	24.0229	0.3611	7.0330	HH LQLI and HH HQLI
	Annual food expenditure	0.4459	73.4552	0.4212	5.4620	HH LQLI and HH HQLI
	Annual expenditure on clothing	0.4755	36.3535	0.3761	6.5940	HH LQLI and HH HQLI
	Living area per person	0.8011	17.6625	0.3534	7.2740	HH LQLI and HH HQLI
	Occupation	0.9438	10.1349	0.3442	7.5730	HH LQLI and HH HQLI
9	Annual per capita income	0.7340	80.3947	0.4217	5.4520	HH LQLI and HH HQLI
	Assets possessed in value terms	0.8220	64.5899	0.4028	5.8940	HH LQLI and HH HQLI
	Type of house	0.7960	59.8168	0.3970	6.0360	HH LQLI and HH HQLI
	Education	0.8710	27.2517	0.3581	7.1260	HH LQLI and HH HQLI
	Annual food expenditure	0.4247	79.3949	0.4205	5.4790	HH LQLI and HH HQLI
	Annual expenditure on clothing	0.4735	33.2024	0.3652	6.9090	HH LQLI and HH HQLI
	Living area per person	0.7746	13.1424	0.3412	7.6750	HH LQLI and HH HQLI
	Occupation	0.9434	9.5458	0.3369	7.8240	HH LQLI and HH HQLI
	Room per person	0.7029	5.3665	0.3319	8.0020	HH LQLI and HH HQLI
10	Annual per capita income	0.5152	31.9693	0.3576	7.1420	HH LQLI and HH HQLI
	Assets possessed in value terms	0.8091	67.7893	0.3998	5.9660	HH LQLI and HH HQLI
	Type of house	0.7846	62.7517	0.3939	6.1160	HH LQLI and HH HQLI
	Education	0.8582	29.4154	0.3546	7.2360	HH LQLI and HH HQLI
	Annual food expenditure	0.4210	71.4783	0.4042	5.8590	HH LQLI and HH HQLI
	Annual expenditure on clothing	0.4716	34.1757	0.3602	7.0610	HH LQLI and HH HQLI
	Living area per person	0.6137	17.9717	0.3410	7.6800	HH LQLI and HH HQLI
	Occupation	0.9403	8.5343	0.3299	8.0740	HH LQLI and HH HQLI
	Room per person	0.5669	9.2517	0.3308	8.0430	HH LQLI and HH HQLI
	Annual income	0.4273	4.7716	0.3255	8.2380	HH LQLI and HH HQLI

Source: Estimation based on Field Survey, 2014

For Karamadai, the first variable to enter the model in the stepwise procedure was annual per capita income. In step 2, asset possessed was the next variable to enter the model which improved the discrimination between the groups as evidenced by the decrease in Wilks' Lambda from 0.937 to 0.627 and a highest Mahalanobis D^2 (2.366). The next variable to enter the model in stage III was type of house which caused a further fall in Wilks' Lambda to 0.538 from 0.627 and had a maximum D^2 value of 3.418.

In stage IV, the variable to enter was education which further improved discrimination, as evidenced by the decrease in Wilks' Lambda value from 0.538 to 0.496 and had a maximum D^2 value of 4.039. In stage V, annual food expenditure was the next variable to enter the model which further improves discrimination as evidenced by the decrease in Wilks' Lambda value (from 0.496 to 0.449) and had a maximum D^2 value of 4.8697.

The next variable to enter the model in stage VI was annual expenditure on clothing which caused a further fall in Wilks' Lambda to 0.420 from 0.449 and had a maximum D^2 value of 5.494. In stage VII, the variable to enter was living area per person which further improved discrimination, as evidenced by the decrease in Wilks' Lambda value from 0.420 to 0.367 and had a maximum D^2 value of 6.863. In stage VIII, occupation was the next variable to enter the model which further improves discrimination as evidenced by the decrease in Wilks' Lambda value (from 0.367 to 0.344) and had a maximum D^2 value 7.573. In stage IX, the variable room per person was to enter in the model which further improved discrimination, as evidenced by the decrease in Wilks' Lambda value (from 0.344 to 0.332) and had a maximum D^2 value 8.002.

The last variable enter in the model was annual income which further improves discrimination as evidenced by the decrease in Wilks' Lambda value (from 0.332 to 0.325) and had a maximum D^2 value 8.238. Thus, the estimation procedure stops with nine variables viz., annual per capita income, assets possessed in value terms, type of housing, education, annual food expenditure, annual expenditure on clothing, living area per person, occupation, room per person and annual income.

TABLE 4.23c
WILKS' LAMBDA AND MAHALANOBIS D² STATISTICS - ALL

Step		Tolerance	F to Remove	Wilks' Lambda	Min. D Squared	Between Groups
1	Annual per capita income	1.0000	241.9616			
2	Annual per capita income	0.9984	189.9500	0.8282	0.8310	HH LQLI and HH HQLI
	Living area per person	0.9984	61.2499	0.6730	1.9470	HH LQLI and HH HQLI
3	Annual per capita income	0.9254	234.9948	0.7878	1.0790	HH LQLI and HH HQLI
	Living area per person	0.9931	63.0796	0.6025	2.6430	HH LQLI and HH HQLI
	Assets possessed in value terms	0.9208	59.9683	0.5992	2.6810	HH LQLI and HH HQLI
4	Annual per capita income	0.882	268.692	0.7483	1.348	HH LQLI and HH HQLI
	Living area per person	0.993	57.8209	0.5417	3.39	HH LQLI and HH HQLI
	Assets possessed in value terms	0.9128	64.659	0.5484	3.3	HH LQLI and HH HQLI
	Type of house	0.9519	50.5147	0.5345	3.489	HH LQLI and HH HQLI
5	Annual per capita income	0.8488	150.471	0.5618	3.126	HH LQLI and HH HQLI
	Living area per person	0.8797	94.0709	0.5126	3.81	HH LQLI and HH HQLI
	Assets possessed in value terms	0.9107	62.909	0.4855	4.247	HH LQLI and HH HQLI
	Type of house	0.8934	73.9271	0.4951	4.087	HH LQLI and HH HQLI
	Annual food expenditure	0.793	62.4395	0.485	4.254	HH LQLI and HH HQLI

Cont...

Step		Tolerance	F to Remove	Wilks' Lambda	Min. D Squared	Between Groups
6	Annual per capita income	0.8479	135.757	0.5236	3.645	HH LQLI and HH HQLI
	Living area per person	0.8587	69.9503	0.4688	4.54	HH LQLI and HH HQLI
	Assets possessed in value terms	0.9106	58.9566	0.4597	4.71	HH LQLI and HH HQLI
	Type of house	0.8905	75.3778	0.4734	4.458	HH LQLI and HH HQLI
	Annual food expenditure	0.5158	89.1521	0.4848	4.258	HH LQLI and HH HQLI
	Annual expenditure on clothing	0.5692	24.0582	0.4306	5.299	HH LQLI and HH HQLI
7	Annual per capita income	0.8427	139.17	0.5058	3.915	HH LQLI and HH HQLI
	Living area per person	0.8517	74.2021	0.4537	4.824	HH LQLI and HH HQLI
	Assets possessed in value terms	0.9067	61.2276	0.4433	5.032	HH LQLI and HH HQLI
	Type of house	0.8669	85.3728	0.4627	4.654	HH LQLI and HH HQLI
	Annual food expenditure	0.5154	87.6973	0.4645	4.619	HH LQLI and HH HQLI
	Annual expenditure on clothing	0.5688	21.6898	0.4116	5.727	HH LQLI and HH HQLI
	Education	0.9632	20.3545	0.4106	5.753	HH LQLI and HH HQLI
8	Annual per capita income	0.7543	87.1923	0.453	4.839	HH LQLI and HH HQLI
	Living area per person	0.8425	63.9445	0.4348	5.209	HH LQLI and HH HQLI
	Assets possessed in value terms	0.9	64.5217	0.4352	5.2	HH LQLI and HH HQLI
	Type of house	0.8663	84.7906	0.4511	4.876	HH LQLI and HH HQLI
	Annual food expenditure	0.4741	100.7451	0.4636	4.636	HH LQLI and HH HQLI
	Annual expenditure on clothing	0.5678	19.6689	0.4001	6.008	HH LQLI and HH HQLI
	Education	0.9447	24.1644	0.4036	5.921	HH LQLI and HH HQLI
	Room per person	0.7353	12.235	0.3943	6.156	HH LQLI and HH HQLI

Cont....

Step		Tolerance	F to Remove	Wilks' Lambda	Min. D Squared	Between Groups
9	Annual per capita income	0.5877	35.1539	0.4006	5.996	HH LQLI and HH HQLI
	Living area per person	0.7639	77.7434	0.4331	5.246	HH LQLI and HH HQLI
	Assets possessed in value terms	0.8837	70.8895	0.4278	5.359	HH LQLI and HH HQLI
	Type of house	0.8597	88.6917	0.4414	5.071	HH LQLI and HH HQLI
	Annual food expenditure	0.4723	90.8912	0.4431	5.036	HH LQLI and HH HQLI
	Annual expenditure on clothing	0.542	26.0955	0.3937	6.172	HH LQLI and HH HQLI
	Education	0.933	27.607	0.3948	6.142	HH LQLI and HH HQLI
	Room per person	0.6336	21.5594	0.3902	6.262	HH LQLI and HH HQLI
	Annual income	0.4803	14.2977	0.3847	6.41	HH LQLI and HH HQLI

Source: Estimation based on Field Survey, 2014

Over all, the first variable to enter the model in the stepwise procedure was annual per capita income. In step 2, living area per person was the next variable to enter the model which improves the discrimination between the groups as evidenced by the decrease in Wilks' Lambda from 0.828 to 0.673 and a highest Mahalanobis D^2 (1.947). The next variable to enter the model in stage III was assets possessed which caused a further fall in Wilks' Lambda to 0.673 from 0.599 and had a maximum D^2 value of 2.681. In stage IV, the variable to enter was type of house which further improved discrimination, as evidenced by the decrease in Wilks' Lambda value from 0.599 to 0.535 and had a maximum D^2 value of 3.489. In stage V, annual food expenditure was the next variable to enter the model which further improves discrimination as evidenced by the decrease in Wilks' Lambda value (from 0.535 to 0.485) and had a maximum D^2 value 4.254. The next variable to enter the model in stage VI was annual expenditure on clothing which caused a further fall in Wilks' Lambda to 0.485 from 0.431 and had a maximum D^2 value of 5.299. In stage VII, the variable to enter was education which further improved discrimination, as evidenced by the decrease in Wilks' Lambda value from 0.431 to 0.411 and had a maximum D^2 value of 5.753. In stage VIII, room per person was the next variable to enter the model which further improves discrimination as evidenced by the decrease in Wilks' Lambda value (from 0.411 to 0.394) and had a maximum D^2 value 6.156. In stage IX, the last variable to enter was annual income which further improved discrimination, as evidenced by the decrease in Wilks' Lambda value (from 0.394 to 0.385) and had a maximum D^2 value 6.410. Thus, the

estimation procedure stops with nine variables viz., annual per capita income, living area per person, assets possessed in value terms, type of housing, annual food expenditure, annual expenditure on clothing , education, room per person, occupation and annual income.

Tables 4.24a, 4.24b and 4.24c provide the overall stepwise discriminant analysis after all the significant variables are included in the estimation of the discriminant function.

TABLE – 4.24a
SUMMARY STATISTICS FOR TWO-GROUP DISCRIMINANT ANALYSIS –
PERIYANAICKENPALAYAM

Independent variables	Canonical Discriminant Function Coefficients
Occupation	0.442
Annual income	0.287
Annual per capita income	0.295
Annual food expenditure	0.276
Annual expt. on clothing per person	0.197
Type of housing	1.074
Living area per person	0.432
Room per person	0.491
Assets possessed in value terms	0.26
(Constant)	-10.503
Eigen value	1.577
Function	100
Cumulative	100
Canonical correlation	0.782
Wilks' Lambda	0.388
Chi – square	200.218
Significance	0.000

Source: Estimation based on field survey, 2014

The canonical correlation associated with the function for Periyanaickenpalayam block was 0.782 implying significant association between the dependent variables and independent variables in the model. The Wilks' lambda and chi-square value indicates that the function was significant at 1 percent level. All the

variables education, occupation, annual income, annual per capita income, annual food expenditure, annual expenditure on clothing per person, type of housing, living area per person, room per person and asset possession had positive sign indicating that these variables had higher discriminating power between the groups.

TABLE 4.24b
SUMMARY STATISTICS FOR TWO-GROUP DISCRIMINANT ANALYSIS –
KARAMADAI

Independent variables	Canonical Discriminant Function Coefficients
Education	0.621
Occupation	-0.509
Annual income	0.264
Annual per capita income	0.510
Annual food expenditure	0.383
Annual expt. on clothing per person	0.383
Type of housing	1.079
Living area per person	0.322
Room per person	0.498
Assets possessed in value terms	0.384
(Constant)	-12.085
Eigen value	2.127
Function	100
Cumulative	100
Canonical Correlation	0.825
Wilks' Lambda	0.320
Chi-square	313.487
Significance	0.000

Source: Estimation based on field survey, 2014

For Karamadai block, the canonical correlation associated with the function was 0.825 implying significant association between the dependent variables and independent variables in the model. The Wilks' lambda and chi-square value indicates that the function was significant at 1 percent level. Except occupation, all the remaining variables such as education, annual income, annual per capita income, annual food expenditure, annual expenditure on clothing, type of housing, living area per person, room per person and asset possession had positive sign indicating that these variables

had higher discriminating power between the groups. The variable occupation had a negative sign indicating that it acted as a suppressing variable.

TABLE 4.24c
SUMMARY STATISTICS FOR TWO – GROUP DISCRIMINANT ANALYSIS – ALL

Independent variables	Canonical Discriminant Function Coefficients
Education	.496
Annual income	.280
Annual per capita income	.374
Annual food expenditure	.334
Annual expt. on clothing per person	.239
Type of housing	0.999
Living area per person	.393
Room per person	.538
Assets possessed in value terms	.296
(Constant)	-11.078
Eigen value	1.675
Function	100
Cumulative	100
Canonical Correlation	0.791
Wilks' Lambda	0.374
Chi-square	485.655
Significance	0.000

Source: Estimation based on field survey, 2014

Overall, the canonical correlation associated with the function was 0.791 implying significant association between the dependent variables and independent variables in the model. The Wilks' lambda and chi-square value indicates that the function was significant at 1 percent level. All the variables education, occupation, annual income, annual per capita income, annual food expenditure, annual expenditure on clothing per person, type of housing, living area per person, room per person and asset possession had positive sign indicating that these variables had higher discriminating power between the groups.

To assess the contribution of the individual variables, the potency index was calculated for Periyanaickenpalayam, Karamadai blocks and at the macro level based on the discriminant loadings and is presented in tables 4.25.

TABLE 4.25
DISCRIMINANT LOADING AND POTENCY INDEX FOR THE SELECTED VARIABLES –
PERIYANAICKENPALAYAM, KARAMADAI AND ALL

S.No	Variables	Periyanaickenpalayam			Karamadai			All		
		Discriminant loadings	Eigen value	Potency index in percentage	Discriminant loadings	Eigen value	Potency index in percentage	Discriminant loadings	Eigen value	Potency index in percentage
1	Annual per capita income	0.50	1.58	38.80	0.53	2.13	59.52	0.54	1.68	48.66
2	Living area per person	0.48	1.58	36.33	0.25	2.13	13.51	0.35	1.68	20.75
3	Type of house	0.26	1.58	10.50	0.14	2.13	4.29	0.19	1.68	5.98
4	Room per person	0.26	1.58	10.25	0.21	2.13	9.29	0.24	1.68	9.97
5	Annual food expenditure	0.23	1.58	8.49	0.29	2.13	18.14	0.29	1.68	13.89
6	Annual expenditure on clothing	0.21	1.58	6.76	0.00	2.13	0.00	0.07	1.68	0.77
7	Annual income	0.16	1.58	3.84	0.18	2.13	6.82	0.18	1.68	5.37
8	Assets possessed in value terms	0.14	1.58	3.18	0.18	2.13	6.74	0.16	1.68	4.45
9	Education	-0.07	1.58	0.69	0.15	2.13	4.66	0.11	1.68	2.03
10	Occupation	0.03	1.58	0.18	-0.02	2.13	0.10	-0.03	1.68	0.12

Source: Estimation based on field survey, 2014

An easy rule of thumb followed in identifying significant variables discriminating the groups was to select variables whose factor loadings are above +/- 0.30. Based on the above rule, only two variables namely annual per capita income and living area per person had factor loadings exceeding +/- 0.30 thresholds. The potency index arrived at by multiplying the square of discriminant loading by the Eigen value of the function for the two blocks.

The relative importance of different predictors indicated that the percentage contribution of individual predictor to the total distance measured was highest in respect of annual per capita income (39 percent), followed by living area per person (36 percent) and together these variables accounted for 75 percent of the variation in the living standards of the households in Periyanaickenpalayam block, while for the Karamadai block, the percentage contribution of individual predictor to the total distance measured was highest in respect of annual per capita income (59 percent), followed by annual food expenditure (18 percent) and together these variables accounted for 77 percent of the variation in the living standards of the households. Overall, the relative importance of different predictors indicated that the percentage contribution of individual predictor to the total distance measured was highest in respect of annual per capita income (49 percent), followed by living area per person (21 percent) and together these variables accounted for 70 percent of the variation in the living standards of the households. Hence for improving the living standards of the tribal population the governmental programmes should aim at enhancing the income of these households which in turn will pave the way for better living conditions. The validity of the discriminant function was evaluated at group centroids (group means) and the results are shown in Tables 4.26.

TABLE – 4.26
CLASSIFICATION OF SAMPLE CASES (in percent)

Blocks	Actual group	Predicted Group Membership		
		Below TQLI	Above TQLI	Total
Periyanaickenpalayam	Below TQLI	93.6	6.4	100
	Above TQLI	5.6	94.4	100
Karamadai	Below TQLI	95.6	4.4	100
	Above TQLI	7	99.3	100
ALL	Below TQLI	94.4	5.6	100
	Above TQLI	3.3	96.7	100

Source: Estimation based on field survey, 2014

The classification accuracy percentage of the discriminant function for Periyanaickenpalayam block was 94 percent. Thus it can be inferred that 94 percent of the selected original group cases (estimation sample) were correctly classified, while for the Karamadai block, the classification accuracy percentage of the discriminant function was 96 percent. Thus it can be inferred that 96 percent of the selected original group cases (estimation sample) were correctly classified.

Overall, the classification accuracy percentage of the discriminant function was 94 percent. Thus it can be inferred that 94 percent of the selected original group cases (estimation sample) were correctly classified.

X. Benefits of MGNREGA Scheme

MGNREGA is the most ambitious scheme of the Government of India to tackle the unemployment problem and enhance the living standards of the tribal community. Narayanasamy and Boraian (2009) in their study found that the benefits of the scheme as perceived by the community were guaranteed employment, sufficient family income and so on. Hence in the present study an attempt was made to find out what extent the selected tribal households in Periyanaickenpalayam and Karamadai have benefitted from MGNREGA scheme. The respondents were asked to state their opinions on a five point scale, namely, strongly agree, agree, neutral, disagree and strongly disagree. The responses were given the weights as 5,4,3,2 and 1. Cronbach's Alpha test was conducted for all constructs for each of the two blocks to determine the internal consistency across items. The results are presented in Table 4.27.

TABLE – 4.27
RELIABILITY ANALYSIS

Blocks	Cronbach's Alpha
Periyanaickenpalayam	0.902
Karamadai	0.830
All	0.867

Source: Estimation based on Field Survey, 2014

The Cronbach's Alpha values for all constructs in both the blocks and the aggregate level exceeded the minimum alpha of 0.7 (Nunnally, 1978). This indicates good reliability of all items.

Having established the consistency of the items, factor analysis was used to identify the underlying pattern of relationship between the various dimensions of benefits. To determine appropriateness of applying factor analysis, the Kaiser - Meyer - Oklin (KMO) and Bartlett's test measures were computed and the results are presented in the Table 4.28.

TABLE – 4.28
KMO AND BARTLETT'S TEST MEASURES

Measure		Periyanaickenpalayam block	Karamadai block	All
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.870	0.831	0.863
Bartlett's Test of Sphericity	Approximate Chi – square	168.2	194.8	314.1
	Degrees of freedom	91	91	91
	Level of significance	0.000	0.000	0.00

Source: Estimation based on Field Survey, 2014

The KMO statistics for Periyanaickenpalayam, Karamadai blocks and for the entire sample were 0.870, 0.831 and 0.863 significantly higher than the recommended minimum of 0.6 (Kaiser, 1974) indicating the sample size was adequate for applying factor analysis. The Bartlett's test of Sphericity was also found to be significant at one percent providing evidence of the presence by relationship between variables to apply factor analysis.

The communalities for each variable was assessed to determine the amount of variance accounted by the variables to be included in the factor rotations and all the variables had values greater than 0.50 signifying substantial portion of the variance are accounted by the factors.

Tables 4.29a, 4.29b and 4.29c enlist the Eigen values, their respective explanatory power and factor loadings for 14 linear components identified within the data set.

TABLE-4.29a

ROTATED COMPONENT MATRIX- PERIYANAICKENPALAYAM

S.No	Benefits of the programme	Component		
		1	2	3
1	Enhanced Income			
2	Enhanced Savings			.772
3	Improved Livelihood Security			
4	Improved household consumption			
5	Improved basic health services			
6	Improved basic education			
7	Improved access to credit			.768
8	Decreased household tensions between men and women	.814		
9	Decreased household tensions between young and old	.728		
10	Reduced Distress Migration	.802		
11	Improved Women decision making power			
12	Reduced social exclusion		.728	
13	Betterment of village		.872	
14	Improved participation in the community			
	Eigen values	6.418	1.505	1.067
	Percentage of variance	45.845	10.750	7.622
	Cumulative percentage	45.845	56.595	64.218

Extraction Method: Principal Component Analysis,
 Rotation Method: Varimax with Kaiser Normalization,
 Rotation converged in 8 iterations.

Source: Estimation based on Field Survey, 2014

TABLE-4.29b

ROTATED COMPONENT MATRIX- KARAMADAI

S.No	Benefits of the programme	Component				
		1	2	3	4	5
1	Enhanced Income		.790			
2	Enhanced Savings					.956
3	Improved Livelihood Security		.794			
4	Improved household consumption		.769			
5	Improved basic health services					
6	Improved basic education	.706				
7	Improved access to credit	.743				
8	Decreased household tensions between men and women	.842				
9	Decreased household tensions between young and old	.843				
10	Reduced Distress Migration					
11	Improved Women decision making power			.856		
12	Reduced social exclusion			.830		
13	Betterment of village					
14	Improved participation in the community				.877	
	Eigen values	5.011	2.072	1.361	1.026	1.003
	Percentage of variance	35.796	14.802	9.720	7.328	7.167
	Cumulative percentage	35.796	50.598	60.319	67.646	74.813

Extraction Method: Principal Component Analysis,
 Rotation Method: Varimax with Kaiser Normalization,
 Rotation converged in 6 iterations.

Source: Estimation based on Field Survey, 2014

TABLE-4.29c

ROTATED COMPONENT MATRIX- ALL

S.No	Benefits of the programme	Component		
		1	2	3
1	Enhanced Income	.809		
2	Enhanced Savings			
3	Improved Livelihood Security	.769		
4	Improved household consumption	.776		
5	Improved basic health services	.695		
6	Improved basic education			
7	Improved access to credit			.819
8	Decreased household tensions between men and women			
9	Decreased household tensions between young and old			.699
10	Reduced Distress Migration			
11	Improved Women decision making power		.746	
12	Reduced social exclusion		.837	
13	Betterment of village			
14	Improved participation in the community			
	Eigen values	5.465	1.595	1.232
	Percentage of variance	39.035	11.393	8.802
	Cumulative percentage	39.035	50.428	59.229

Extraction Method: Principal Component Analysis,
 Rotation Method: Varimax with Kaiser Normalization,
 Rotation converged in 6 iterations.
 Source: Estimation based on Field Survey, 2014

The Eigen value for the first three factors alone were greater than one for the MGNREGA beneficiaries in Periyanaickenpalayam and for sample as a whole indicating these factors alone were appropriate for inclusion in the analysis. For MGNREGA beneficiaries from Karamadai, the Eigen value of first five factors alone were greater than one, indicating these factors alone were appropriate for inclusion in the analysis. These factors together accounted for nearly 64 percent of the variations in Periyanaickenpalayam, 75 percent for the MGNREGA beneficiaries from Karamadai and 59 percent for overall sample.

For MGNREGA beneficiaries in Periyanaickenpalayam, factor one had significant loadings on three dimensions, namely, 'decreased household tensions between men and women', 'decreased household tensions between young and old', and 'reduced distress migration', (representing improved quality of life). These dimension explained nearly 46 percent of the variations. Factor two had significant loadings for two dimensions, namely, 'reduced social exclusion', and 'betterment of village', (representing better community life) and together accounted for nearly 11 percent of the variance. Factor three had significant loadings on two dimensions, namely, 'enhanced savings', and 'improved access to credit', (representing economic self reliance) and these factors accounted for nearly 8 percent of the variations.

The Kaiser rotated component matrix for the MGNREGA beneficiaries in Karamadai revealed that factor one had significant loadings on four dimensions, namely, 'improved basic education services', 'improved access to credit', 'decreased household tensions between men and women', 'decreased household tensions between young and old', (representing improved quality of life). These factors accounted for nearly 36 percent of the variations. Factor two had significant loadings for three dimensions, namely, 'enhanced income', 'improved livelihood security', 'improved household consumption', (representing economic self reliance) and together accounted for nearly 15 percent of the variance. Factor three had significant loadings on two dimensions, namely, 'improved women's decision making power', (representing improved quality of life) 'reduced social exclusion', (representing better community life) and this factor accounted for nearly 10 percent of the variations. Factor four had significant loadings on one dimension, namely, 'improved participation in the community', (representing better community life) and this factor accounted for nearly 7 percent of the variations. Factor five had significant loadings on one dimension,

namely, 'enhanced savings', (representing economic self - reliance) and this factor accounted for nearly 7 percent of the variations.

For overall sample, the Kaiser rotated component matrix for the MGNREGA beneficiaries revealed that factor one had significant loadings on four dimensions, namely, 'enhanced income', 'improved livelihood security', 'improved household consumption', (representing economic self reliance) and 'improved basic health services', (representing improved quality of life). These dimension explained nearly 39 percent of the variations. Factor two had significant loadings for two dimensions, namely, 'improved women decision making power', (representing improved quality of life) and 'reduced social exclusion', (representing better community life) and together accounted for nearly 11 percent of the variance. Factor three had significant loadings on one dimensions, namely, 'improved access to credit', 'decreased household tensions between young and old (representing improved quality of life) and these factors accounted for nearly 9 percent of the variations.

Thus, the major benefits perceived by the beneficiaries of MGNREGA were improved quality of life, economic self – reliance, and better community life. The above findings are in line with the findings of earlier researchers. For instance, Samik Shome et al., (2012) observed that the NREGA had a significant impact in both village – level infrastructural development and in household level quality of life of the beneficiaries. Balbir Singh (2013) found that the MGNREGA scheme was quite successful in meeting the aspirations of the poor beneficiaries in Punjab.

XI. Negative Impacts of MGNREGA Scheme

Narayanasamy and Boraian (2009) in their study found that the beneficiaries of MNREGA did face certain problems like difficulty to strictly adhere to the time schedule, lack of facilities in the area of work, etc. In the present study the respondents were asked to indicate the negative impacts of the programme and the extent of conflict they faced in terms of strongly agree, agree, neutral, disagree and strongly disagree. The responses were given the weights as 5,4,3,2 and 1. Cronbach's Alpha test, conducted for all constructs for each of the two blocks to determine the internal consistency across items. The results are presented in Table 4.30.

TABLE – 4.30
RELIABILITY ANALYSIS

Blocks	Cronbach's Alpha
Periyanaickenpalayam	0.722
Karamadai	0.717
All	0.725

Source: Estimation based on Field Survey, 2014

The Cronbach's Alpha values for all constructs in both the blocks and for the entire sample exceeded the minimum alpha of 0.7 (Nunnally, 1978). This indicates good reliability of all items. Having established the consistency of the items, factor analysis was used to identify the underlying pattern of relationship between the various dimensions of negative aspects of MGNREGA scheme. To determine appropriateness of applying factor analysis, the Kaiser - Meyer - Oklin (KMO) and Bartlett's test measures were computed and the results are presented in the Table 4.31.

TABLE – 4.31
KMO AND BARTLETT'S TEST MEASURES

Measure		Periyanaickenpalayam block	Karamadai block	All
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.610	0.623	0.636
Bartlett's Test of Sphericity	Approximate Chi – square	102.0	866.493	166.7
	Degrees of freedom	78	78	78
	Level of significance	0.000	0.000	0.000

Source: Estimation based on Field Survey, 2014

The KMO statistics for Periyanaickenpalayam (0.592), Karamadai (0.614) and at the macro level (0.636) appropriates the recommended minimum of 0.6 (Kaiser, 1974) indicating the sample size was adequate for applying factor analysis. The Bartlett's test of Sphericity was also found to be significant at one percent providing evidence of the presence by relationship between variables to apply factor analysis. The communalities for each variable was assessed to determine the amount of variance accounted by the variables to be included in the factor rotations and all the variables had values greater than 0.50 signifying substantial portion of the variance are accounted by the factors. Table 4.32a, 4.32b and 4.32c enlists the Eigen values, their respective explanatory power and factor loadings for 13 linear components identified within the data set.

TABLE 4.32a

ROTATED COMPONENT MATRIX- PERIYANAICKENPALAYAM

S.No	Negative impacts of the programme	Component				
		1	2	3	4	5
1	Benefits one type of family		.933			
2	Does not lead to sustainable change		.928			
3	Transfer is Inadequate			.840		
4	Let up on Distress migration			.857		
5	Too time consuming				.669	
6	Wages are not paid on time				.702	
7	Wages are not paid in full					
8	Money is siphoned Off					
9	Creates tensions between family members	.943				
10	Not flexible to HH activities	.952				
11	Not flexible to productive activity					
12	No child care Provisions					.685
13	No facilities at worksite					.712
	Eigen values	2.234	1.851	1.795	1.695	1.519
	Percentage of variance	17.183	14.236	13.811	13.039	11.688
	Cumulative percentage	17.183	31.419	45.229	58.269	69.957

Extraction Method: Principal Component Analysis,
Rotation Method: Varimax with Kaiser Normalization,
Rotation converged in 5 iterations,
Source: Estimation based on Field Survey, 2014

TABLE 4.32b

ROTATED COMPONENT MATRIX- KARAMADAI

S.No	Negative impacts of the programme	Component				
		1	2	3	4	5
1	Benefits one type of family			.890		
2	Does not lead to sustainable change			.836		
3	Transfer is Inadequate					
4	Let up on Distress migration	.669				
5	Too time consuming	.692				
6	Wages are not paid on time			.633		
7	Wages are not paid in full					
8	Money is siphoned Off				.714	
9	Creates tensions between family members		.864			
10	Not flexible to HH activities		.765			
11	Not flexible to productive activity	.660				
12	No child care Provisions	.678				
13	No facilities at worksite					.847
	Eigen values	2.357	1.628	1.584	1.533	1.451
	Percentage of variance	18.129	12.525	12.184	11.794	11.160
	Cumulative percentage	18.129	30.654	42.837	54.632	65.791

Extraction Method: Principal Component Analysis,
 Rotation Method: Varimax with Kaiser Normalization,
 Rotation converged in 5 iterations,
 Source: Estimation based on Field Survey, 2014

TABLE 4.32c

ROTATED COMPONENT MATRIX- ALL

S.No	Negative impacts of the programme	Component			
		1	2	3	4
1	Benefits one type of family				.874
2	Does not lead to sustainable change				.902
3	Transfer is Inadequate				
4	Let up on Distress migration		.725		
5	Too time consuming				
6	Wages are not paid on time			.649	
7	Wages are not paid in full				
8	Money is siphoned Off			.670	
9	Creates tensions between family members	.870			
10	Not flexible to HH activities	.900			
11	Not flexible to productive activity				
12	No child care Provisions		.775		
13	No facilities at worksite				
	Eigen values	2.017	1.991	1.828	1.775
	Percentage of variance	15.513	15.317	14.058	13.652
	Cumulative percentage	15.513	30.830	44.889	58.541

Extraction Method: Principal Component Analysis,
 Rotation Method: Varimax with Kaiser Normalization,
 Rotation converged in 5 iterations,
 Source: Estimation based on Field Survey, 2014

The Eigen value for the first five factors alone were greater than one for the MGNREGA beneficiaries in Periyanaickenpalayam and Karamadai blocks indicating these factors alone were appropriate for inclusion in the analysis. Similarly, the Eigen value of first four factors alone were greater than one for all the MGNREGA beneficiaries put together indicating these factors alone were appropriate for inclusion in the analysis. These factors together accounted for nearly 70 percent of the variations in Periyanaickenpalayam block followed by 66 percent for the MGNREGA beneficiaries in Karamadai block and 58 percent at the macro level.

For MGNREGA beneficiaries in Periyanaickenpalayam, factor one had significant loadings for two dimensions namely 'creates tensions between members in the family', and 'Not flexible to household activities', (representing work related issue). These dimensions together explained nearly 17 percent of the variance. Factor two had significant loadings for two dimensions namely 'benefits one type of family' and 'does not lead to sustainable change', (representing work related issue) representing nearly 14 percent of the variance. Factor three had significant loadings for two dimensions namely 'transfer is inadequate' and 'no letup on distress migration' (representing work related issue) and explained 14 percent of the variance. Factor four had significant loadings for two dimensions namely 'too time consuming' and 'wages are not paid on time', (representing operational issue) and explained nearly 13 percent of the variance. Factor five had significant loadings for two dimensions namely 'no child care provision' and 'no facilities at worksite' (representing work related issue) and explained nearly 11 percent of the variance.

The Kaiser rotated component matrix for the MGNREGA beneficiaries in Karamadai revealed that factor one had significant loadings for four dimensions namely 'too time consuming' (representing operational issue) 'let up on distress migration', 'not flexible to productive activity' and 'no child care provisions' (representing work related issue) and accounted for nearly 18 percent of the variance. Factor two had significant loadings for two dimensions 'creates tension between members in the family', (representing work related issue) and accounting nearly 13 percent of the variance. Factor three had significant loadings for three dimensions namely 'benefits one type of family', 'does not lead to sustainable change' (representing work related issue) and 'wages are not paid on time', (representing operational issue) and explained 12 percent of the variance. Factor four had significant loadings for one dimension namely 'money is siphon off', (representing operational issue) and accounted for nearly 12 percent of

the variance. Factor five had significant loadings for one dimension namely 'no facilities at worksite' (representing work related issue) and explained nearly 11 percent of the variance.

Overall, the Kaiser rotated component matrix for the MGNREGA beneficiaries revealed that factor one had significant loadings for two dimensions namely 'creates tensions between members in the family', 'Not flexible to household activities', (representing work related issue). These dimensions together explained nearly 16 percent of the variance. Factor two had significant loadings for two dimensions 'no letup on distress migration', and 'No child care provision at worksite', (representing work related issue) and explained nearly 15 percent of the variance. Factor three had significant loadings for two dimensions namely 'wages are not paid on time', and 'wages are not paid in full' (representing operational issue) and accounted nearly 14 percent of the variance. Factor four had significant loadings for one dimension namely 'money is siphon off', (representing operational issue) and explained nearly 12 percent of the variance. Factor five had significant loadings for two dimensions namely 'benefits one type of family' and 'does not lead to sustainable change' (representing work related issue) and explained nearly 14 percent of the variance.

The major concerns expressed by the respondents were dissatisfaction with work, corruption in the implementation of the scheme, low remuneration and lack of security. Hence to make the programme more effective in enhancing the status of the tribal households the government should take effective measures to address these issues and concerns. Chithra and Ganesan (2013) examining the perceptions of the beneficiaries about the execution of the MGNREGA activities in Thethupatti village of Dindigul district revealed that about 80 percent of beneficiaries were dissatisfied with wage rate, wage distribution, type of employment, job security, unemployment allowance and performance of Panchayat officials. Chanchal Charan (2013) assessing the impact of MGNREGA scheme on rural residents in Bihar found that the major hurdle in its performance was corruption. Ashok Kumar and Mahesh Kumar (2016) studied the satisfaction level of women beneficiaries through MGNREGA in Coimbatore district of Tamil Nadu revealed that the beneficiaries were dissatisfied about the working days, wage provided and working conditions.

XII. Path Analysis

An attempt was made to examine the impact of socio economic status, quality of life, job related issues and operational issues of MGNREGA scheme on the satisfaction level of the sample beneficiaries. In the study the variables considered were satisfaction level from MGNREGA scheme, economic self reliance, quality of life, better community life, work related issues and operational issues of MGNREGA scheme.

The construct economic self reliance includes enhanced income, savings, livelihood security and household consumption. The construct quality of life includes improved access to basic health, basic education, access to credit, reduced tension between men and women, reduced tension between young and old, reduced distress migration and improvement in women's decision-making power. The construct better community life includes reduced social exclusion, improved participation in the community and betterment in village infrastructure. The construct work related issues includes benefits only one type of family, no sustainable development, inadequate transfer, distress migration, creates tensions between family members, not flexible to household and productive activities, no child care provisions and no work site facilities. The construct operational issues includes too time consuming, wages are not paid on time, wages are not paid full and money is siphoned off.

The model proposed for analyzing the interrelationship among the variables was that the economic self reliance, quality of life and better community life will exert direct effect on satisfaction level while work related issue and operational issue will exert negative impact on satisfaction level. To test these hypothesized predictions, the following model was specified (figure 4.4). Five point Likert scale was used to ask the respondents how strongly they agree or disagree with statement. Rating or scale questions were used to collect opinion from the respondents regarding the level of satisfaction, economic self reliance, quality of life, better community life, work related issue and operational issue of MGNREGA scheme. The composite reliability and AVE values of the five constructs used in the study were carried out using VPLS software. The reliability and outcome is presented in tables 4.33.

FIGURE 4.4
Proposed Path Model

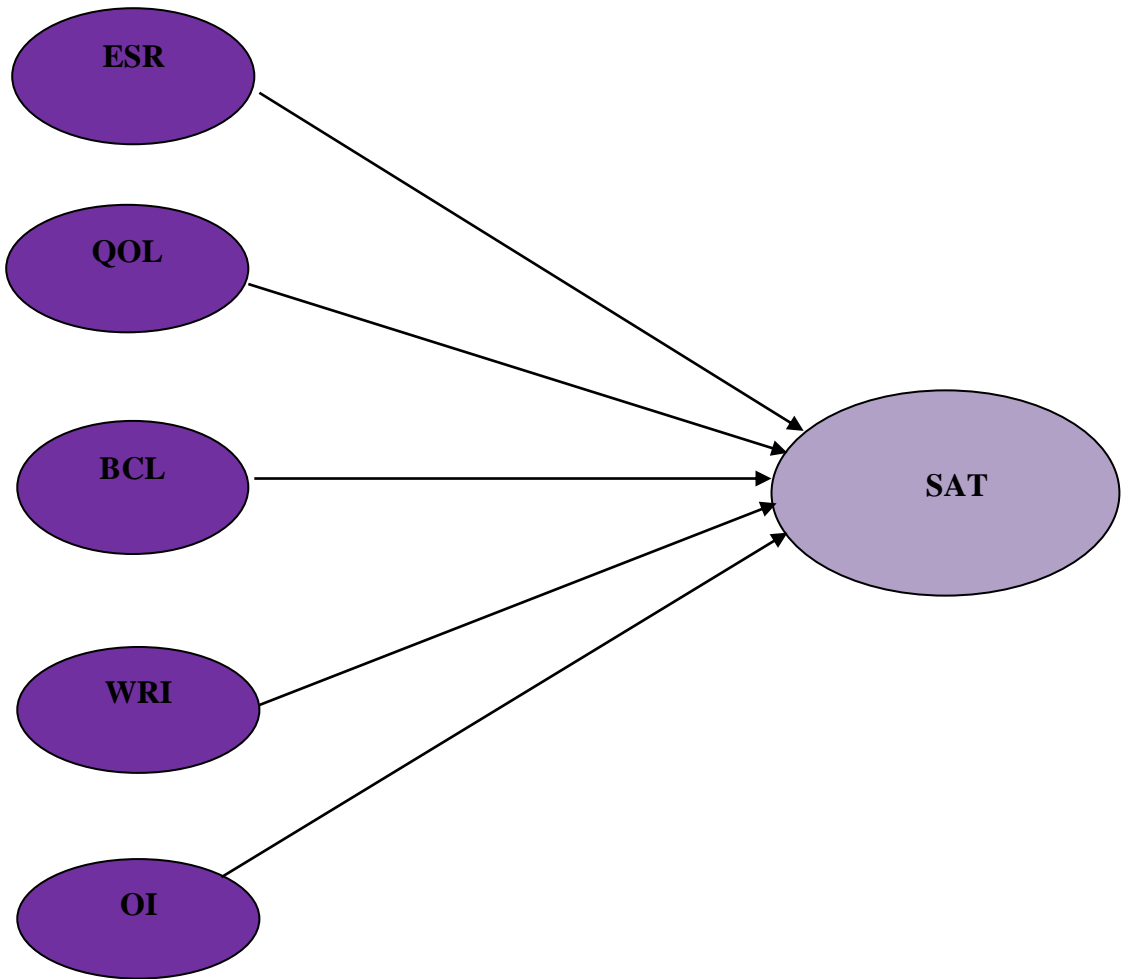


TABLE 4.33
RELIABILITY AND AVE – PERIYANAICKENPALAYAM

S.No	Construct	Periyanaickenpalayam Block			Karamadai Block			All		
		Composite Reliability	AVE	Cronbach Alpha	Composite Reliability	AVE	Cronbach Alpha	Composite Reliability	AVE	Cronbach Alpha
1	SAT	0.808326	0.610770	0.737435	0.822010	0.610021	0.784811	0.946592	0.984099	0.947382
2	ESR	0.710024	0.734643	0.750335	0.801185	0.525789	0.943946	0.719480	0.764147	0.845495
3	QOL	0.894615	0.822601	0.824064	0.885408	0.504752	0.860767	0.883532	0.530667	0.871439
4	BCL	0.996402	0.793937	0.816510	0.838348	0.721694	0.814310	0.780255	0.665517	0.742912
5	WRI	0.763422	0.725719	0.855042	0.760304	0.731563	0.745323	0.712718	0.814335	0.835504
6	OI	0.726522	0.792166	0.769907	0.816933	0.815486	0.786952	0.830519	0.884991	0.781350

Source: Estimation based on Field Survey, 2014

The reliability of the constructs refers to the accuracy with which the constructs repeatedly measure the same phenomenon within permissible variation. Composite reliability guideline offered by Manuel and Joaquina (2004) suggests a value of 0.7 as a benchmark for modest reliability applicable in initial stages of research. In this study, all the latent constructs were reliable as the values ranged from 0.71 to 0.99 for Periyanaickenpalayam and from 0.76 to 0.88 for Karamadai blocks. For overall samples the values ranged from 0.71 to 0.94. Thus, the constructs fully meet the requirements of composite reliability.

Cronbach's Alpha estimates the internal consistency manifests in a scale. High inter-correlation in a scale's manifest variables means the scale is internally consistent. The widely acceptable cut – off level of alpha is 0.7 (Hulland, 1999). Here it can be seen that in all the cases, α values are more than the cut – off level indicating the internal consistency for all the latent variables in the study area.

Another reliability measure is average variance extracted (AVE). It reflects the overall amounts of variance in the manifests accounted for by the latent construct. According to, Youggi, Itizy, Ren Yong and Yongheng, (2004), AVE is more conservative measure than composite reliability and the suggested acceptable level of AVE is 0.50 or above for a construct. The AVE scores for all the constructs are greater than 0.5 indicating sufficient convergent validity.

The study aims at examining the impact of economic self reliance, quality of life, better community life, work related issue and operational issue on the respondents' satisfaction with respect to MGNREGA scheme. The hypothesis formulated was:

H₁: Economic self reliance, better community life and quality of life positively impact the level of satisfaction from MGNREGA scheme.

H₂: Work related issues and operational issues negatively impact the level of satisfaction from MGNREGA scheme.

The estimated path models are shown in figures 4.5a, 4.5b and 4.5c.

Figure 4.5a

Path Model - Periyanaickenpalayam

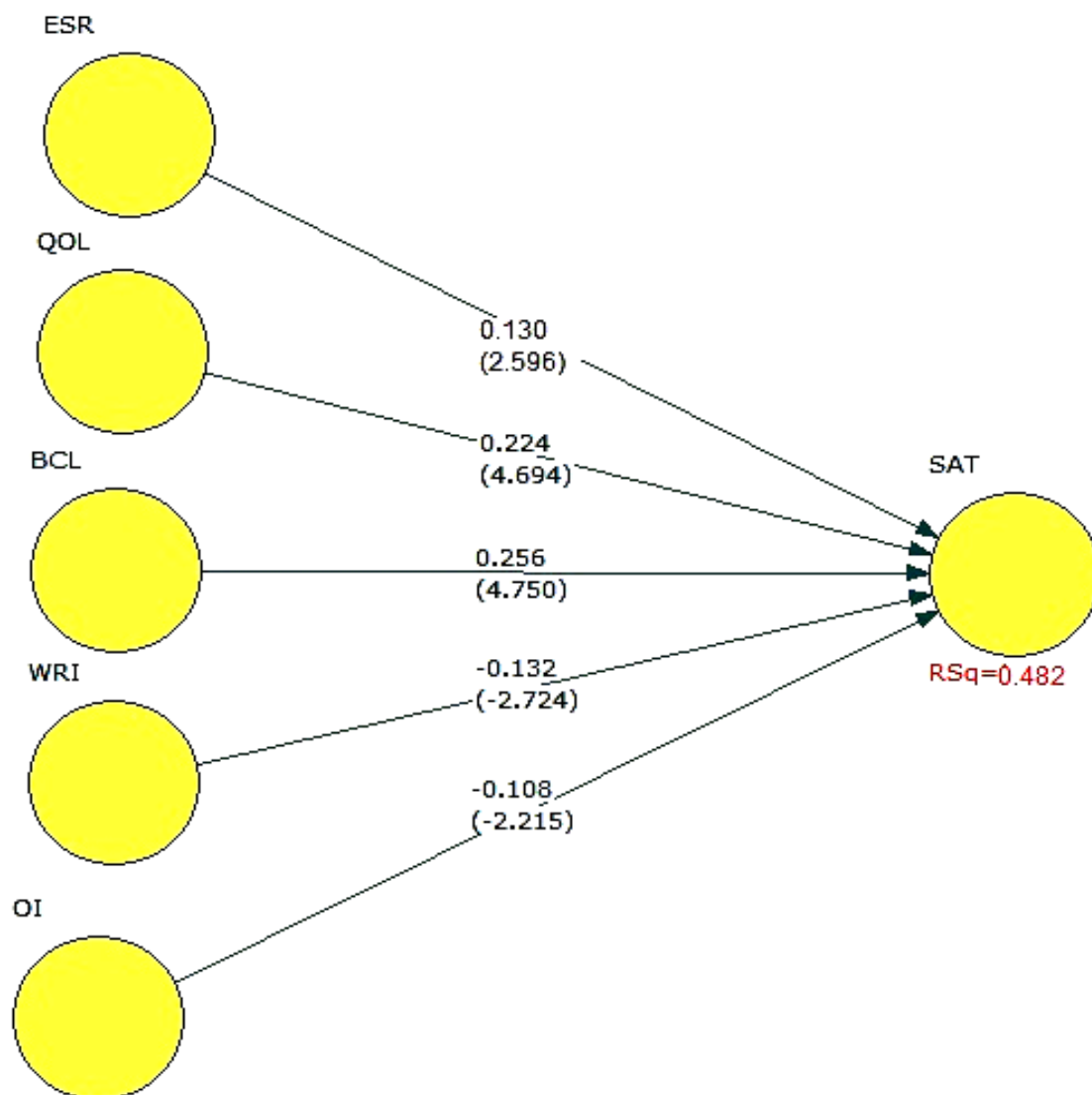


Figure 4.5b

Path Model - Karamadai

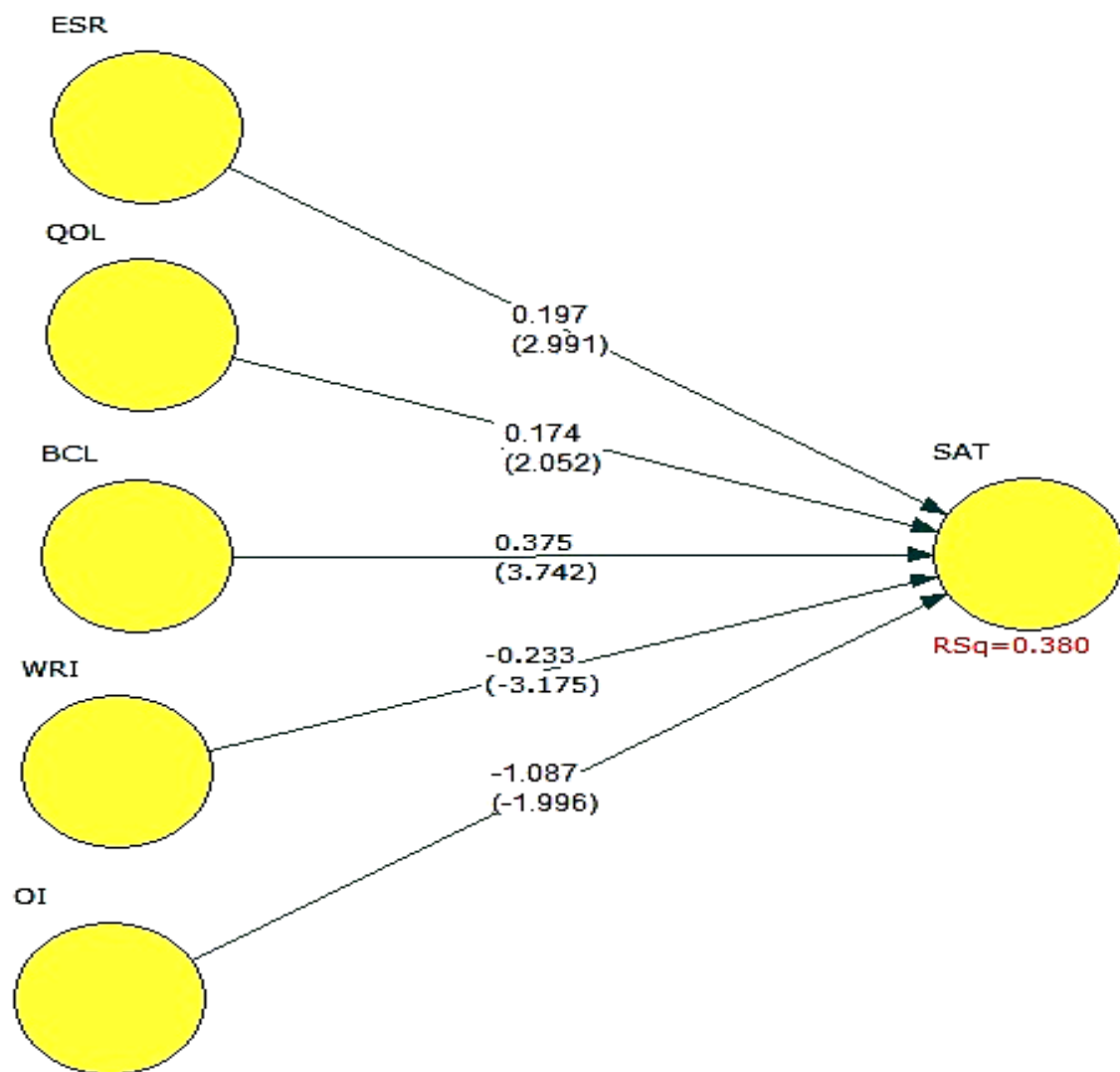
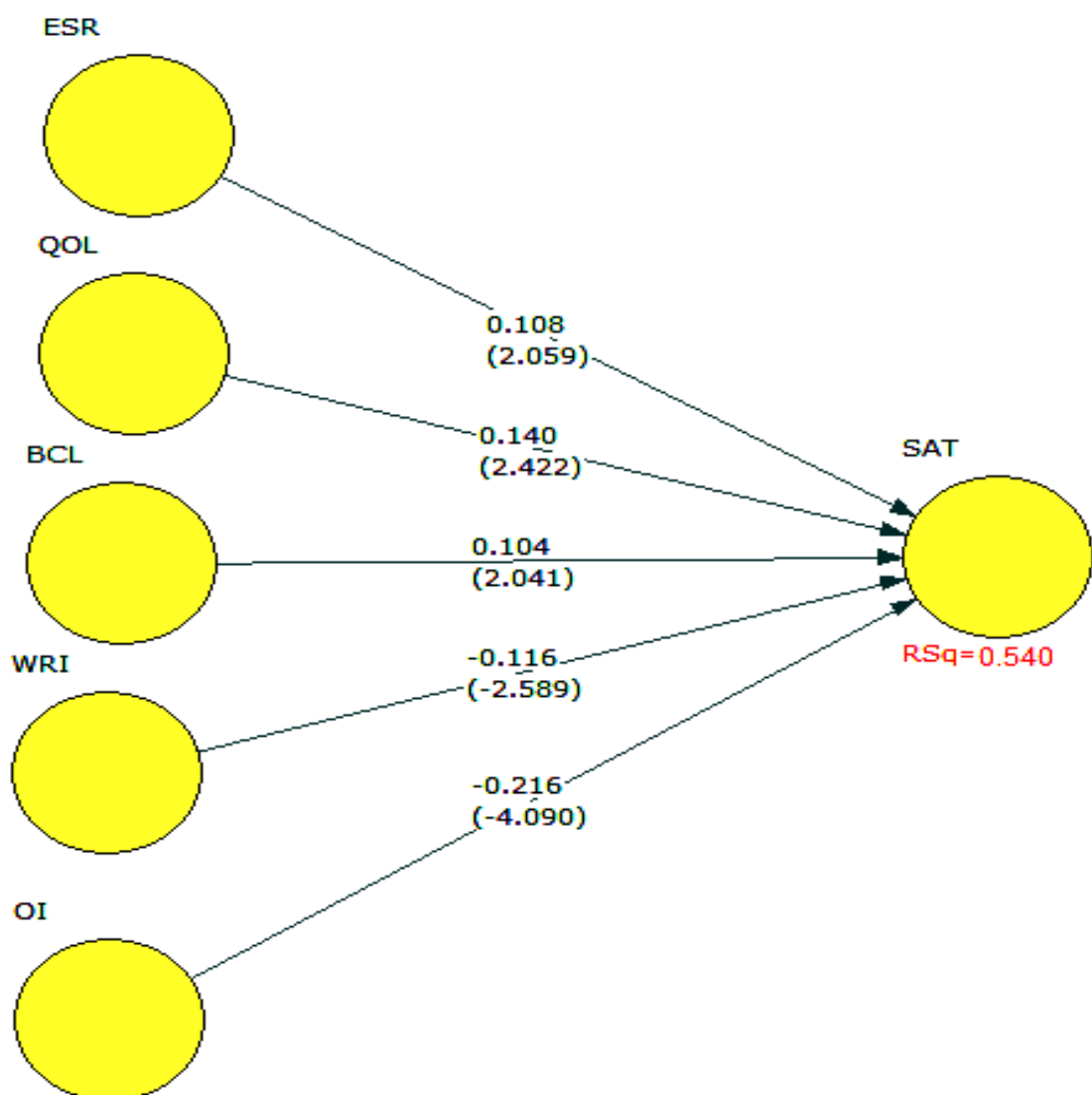


Figure 4.5c

Path Model - All



The R^2 (model goodness of fit) of the latent variables which explains the proportion of variance in the latent variables explained by the structural relationships, was 0.482 for Periyanaickenpalayam and 0.38 for Karamadai block. For sample as whole it was 0.54. The R^2 value was acceptable in all models, since it was within the standard norm of 0.33 to 0.67 (Trufillo, 2009). This means that the PLS regression model can explain 48 percent of total variance in satisfaction level from MGNREGA scheme in Periyanaickenpalayam block, 38 percent in Karamadai block and 54 percent for the entire sample.

The analysis of the above diagram reveals that the path between economic self reliance and satisfaction was positive and significant for both the blocks and for the entire sample.. The path coefficient for Periyanaickenpalayam was 0.130 and t value = 2.596, while for Karamadai it was 0.197 and t value = 2.991 and for overall sample it was 0.108 and t value = 2.059. An improvement in income, savings, and consumption levels would facilitate more favourable attitude towards MGNREGA scheme and thereby increasing their satisfaction level. When beneficiaries find an improvement in their livelihood security their participation in MGNREGA activities also improves. Klonner and Oldiges (2014) observe that the two major outcomes of MGNREGA were improvement in livelihood security and reaching out to most vulnerable rural inhabitants.

The path between quality of life and satisfaction was positive and significant for both the blocks and also for the entire sample. The path coefficient for Periyanaickenpalayam was 0.224 and t value = 4.694, for Karamadai it was 0.174 and t value = 2.052 and for overall sample it was 0.140 and t value = 2.422. A better access to health care and educational facilities would develop in the beneficiaries a favourable attitude towards MGNREGA scheme.

The path between better community life and satisfaction was positive and significant. The path coefficient for Periyanaickenpalayam was 0.256 and t value = 4.750, while for

Karamadai it was 0.375 and t value = 3.742 and for overall sample it was 0.104 and t value = 2.041. An improvement in community life and betterment in village life would incline the beneficiaries to have a more favourable attitude towards MGNREGA and thereby increase their satisfaction level.

Distress migration, tensions between family members, no facilities at worksite will negatively impact satisfaction from MGNREGA activities. The path between work-related issues and satisfaction was found to be negative and significant. The path coefficient was -0.132 and t value = -2.724 for Periyanaickenpalayam block, -0.233 and t value = - 3.175 for Karamadai block and for the sample as a whole it was - 0.116 and t value = -2.589. When participation in MGNREGA scheme does not reduce seasonal / distress migration and creates tension among family members due to lack of alternative employment / income it negatively impacts the satisfaction of the beneficiaries. Similarly lack of facilities at work site may also prevent the inhabitants from actively participating in the scheme.

Operational issues like delay in payment would decrease the job satisfaction. The path between operational issues and job satisfaction was found to be negative and significant. For Periyanaickenpalayam block the path coefficient was -0.108 and the t value was - 2.724, while for Karamadai block it was -1.087 and -1.996 respectively. For the sample as a whole the path coefficient was -0.216 and the t value was - 4.090. Table 4.34a, 4.34b and 4.34c represents the path coefficient value and the related 't' statistics which test the significance of the path coefficient and the extent of relationships between constructs. The inference from the table is indicated by $t > 1.65$; $p < 0.05$ and if $t < 2$; $p < 0.01$.

TABLE 4.34a
STRUCTURAL MODEL – BOOTSTRAP - PERIYANAICKENPALAYAM

S.No	Factors	Entire Sample Estimate	Mean of Sub samples	Standard Error	T – Statistic
1	ESR->SAT	0.1300	0.0698	0.0444	2.5960
2	QOL->SAT	0.2240	0.2223	0.0477	4.6936
3	BCL->SAT	0.2560	0.2678	0.0539	4.7497
4	WRI->SAT	-0.1320	-0.1319	0.0485	-2.7238
5	OI->SAT	-0.1080	-0.1563	0.0487	-2.2154

Source: Estimation based on Field Survey, 2014

TABLE 4.34b
STRUCTURAL MODEL – BOOTSTRAP - KARAMADAI

S.No	Factors	Entire Sample Estimate	Mean of Sub samples	Standard Error	T – Statistic
1	ESR->SAT	0.1970	0.0723	0.0498	2.9910
2	QOL->SAT	0.1740	0.1107	0.0831	2.0520
3	BCL->SAT	0.3750	0.3563	0.1002	3.7417
4	WRI->SAT	-0.2330	-0.2561	0.0734	-3.1753
5	OI->SAT	-1.0870	-0.1058	0.0556	-1.9960

Source: Estimation based on Field Survey, 2014

TABLE 4.34c
STRUCTURAL MODEL – BOOTSTRAP - ALL

S.No	Factors	Entire Sample Estimate	Mean of Sub samples	Standard Error	T - Statistic
1	ESR->SAT	0.1080	0.1380	0.0524	2.0591
2	QOL->SAT	0.1400	0.1461	0.0578	2.4225
3	BCL->SAT	0.1040	0.0781	0.0510	2.0406
4	WRI->SAT	-0.1160	-0.1276	0.0448	-2.5887
5	OI->SAT	-0.2160	-0.2149	0.0528	-4.0900

Source: Estimation based on Field Survey, 2014

For Periyanaickenpalayam, the path coefficient between economic self reliance and job satisfaction are $\beta = 0.130$ and $t = 2.596$, $p < 0.01$, for Karamadai, the Path coefficient between economic self reliance and job satisfaction are $\beta = 0.197$ and $t = 2.991$; $p < 0.01$, for overall sample it was $\beta = 0.108$ and $t = 2.059$; $p < 0.01$, this indicates there is significant relationship between economic self reliance and satisfaction.

The path coefficient between the quality of life and satisfaction are $\beta = 0.224$ and $t = 4.694$, $p < 0.01$ for Periyanaickenpalayam while for Karamadai it was $\beta = 0.174$ and $t = 2.052$, $p < 0.01$. For overall sample it was $\beta = 0.140$ and $t = 2.42$; $p < 0.01$, this indicates there is significant relationship between quality of life and satisfaction.

The path coefficient between better community life and satisfaction are $\beta = 0.256$ and $t = 4.750$, $p < 0.01$ for Periyanaickenpalayam while for Karamadai it was $\beta = 0.375$ and $t = 3.742$, $p < 0.01$. For overall sample the path coefficient between better community life and satisfaction are $\beta = 0.104$ and $t = 2.041$, $p < 0.01$, this indicates there is significant relationship between better community life and satisfaction.

The path coefficient between work related issue and satisfaction are $\beta = -0.116$ and $t = -2.580$, $p < 0.01$ for overall sample. For Periyanaickenpalayam it was $\beta = -0.132$ and $t = -2.724$, $p < 0.01$ while for Karamadai it was $\beta = -0.233$ and $t = -3.742$, $p < 0.01$, this indicates there is significant relationship between work related issue and satisfaction.

The path coefficient between operational issue and satisfaction are $\beta = -0.108$ and $t = -2.215$, $p < 0.01$ for Periyanaickenpalayam while for Karamadai it was $\beta = -0.108$ and $t = -1.996$, $p < 0.05$. For overall sample it was $\beta = -0.216$ and $t = -4.090$, $p < 0.01$, this indicates there is significant relationship between operational issue and satisfaction.

From the model it can be concluded that economic self reliance, quality of life, better community life, work related issue and operational issue significantly influences the beneficiary's perceived satisfaction towards MGNREGA activities. Results supported a model in which an improvement in income, savings, household consumption, livelihood security, exerted a significant positive effect on economic self reliance which in turn positively impacts satisfaction level. Improved access to basic health, education, credit, reduced tensions between young and old, between men and women, distress migration, improvement in women's decision making power, exerted a significant positive effect on quality of life which in turn positively impacts satisfaction level. Reduced social exclusion, improved participation in the community and betterment in village exerted a significant positive effect on better community life which in turn positively impacts satisfaction level.

Lack of benefit, no sustainable change, inadequate transfer, distress migration, work related tensions between family members, not flexible to household and productive activities, no child care provisions and no worksite facilities exerted a significant effect on work related issue which in turn negatively impacts satisfaction level and operational issues like delay in payment distribution, exerted a significant effect on operational issue which in turn negatively impacts satisfaction level. Shaveta Kaushal (2014) also confirms that the seasonal migration has come

down significantly due to the opportunities of employment provided under MGNREGA. The additional income earned from the employment scheme was used by the rural households primarily for food security, education of dependents, health care and debt repayment. Balbir Singh (2013) observed that although labourers were getting economic benefit from MGNREGA scheme, but they were dissatisfied with insufficient working days and delay in payment.

(XIII) Opinion of the Beneficiaries for Improvement of the Scheme

The respondents recommend a set of measures to improve the MGNREGA activities. Table – 4.35 brings out the various measures to improve the MGNREGA activities as stated by the sample beneficiaries in Periyanaickenpalayam and Karamadai Blocks.

TABLE – 4.35

MEASURES TO IMPROVE MGNREGA ACTIVITIES

S.No	Measures required	Periyanaickenpalayam Block	Karamadai Block
1	Agriculture may be included in MGNREGA	23 (10.6)	45 (16)
2	Employment may be provided to all eligible members in the family	31 (14.2)	42 (14.9)
3	Employment may be provided throughout the year	46 (21.0)	54 (19.1)
4	Number of days and wages may be increased	118 (54.2)	141 (50)

Source: Estimation based on Field Survey, 2014
Figures within parenthesis indicate percentage.

To improve the MGNREGA activities, majority of the respondents in Periyanaickenpalayam (54.2 percent) and Karamadai (50 percent) blocks stated that number of days of employment and wages should be increased, followed by 'employment may be provided throughout the year' (21 percent in Periyanaickenpalayam and 19 in percent Karamadai), 'employment may be provided to all eligible members in the family' (14 percent in Periyanaickenpalayam and 15 percent in Karamadai) and 'agriculture may be included in MGNREGA' (11 percent in Periyanaickenpalayam and 16 percent in Karamadai).