

CHAPTER-4

RESULTS AND DISCUSSION

The results of the study relating to '**Inter-tribe variation in quality of life in The Nilgiris District of Tamil Nadu**' are discussed under the following heads.

- 4.1. Socio–economic characteristics of the head of the selected tribal households
- 4.2. Details of family members
- 4.3. Analysis of educational status as a component of quality of life
- 4.4. Analysis of economic status as a component of quality of life
- 4.5. Analysis of nutrition status as a component of quality of life
- 4.6. Analysis of health status as a component of quality of life
- 4.7. Analysis of living conditions as a component of quality of life
- 4.8. Assessment of quality of life for the selected tribal groups
- 4.9. Identification of factors determining the quality of life of tribals
- 4.10. Analysis of the link between quality of life and poverty of tribals
- 4.11. Problems faced by the selected tribal groups and
- 4.12. Desired measures to improve the quality of life of tribals

4.1. Socio–economic characteristics of the head of the selected tribal households:

Socio-economic characteristics of the head of the selected tribal households were analysed in terms of age, education, occupation, income, religion, type of family, size of the family, marital status, etc.

Table 6 represents the socio–economic characteristics of the head of the selected tribal households

Table 6
Socio-economic characteristics of the head of the
selected tribal households

Items	Tribal groups Characteristics	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Age (years)	Below 30	4 (8.41)	2 (2.35)	8 (5.72)	22(9.17)	34(10.18)	3(4.94)
	30-40	9(19.27)	28(32.55)	3 (25.0)	68(28.33)	76 (22.75)	22(36.06)
	40-50	18(38.29)	22 (25.58)	41 (29.28)	58(24.17)	93 (27.84)	12(19.67)
	50-60	9 (19.14)	25 (29.06)	35 (25.0)	64(26.67)	74(21.87)	20(32.78)
	Above 60	7 (14.89)	9 (10.46)	21 (15.0)	28(11.66)	58(17.36)	5(6.55)
Education	Illiterate	17 (36.17)	55 (63.95)	69 (49.28)	122(50.83)	244(73.05)	45(73.77)
	Primary	8 (17.03)	25 (28.06)	45(32.15)	86(35.83)	53(15.57)	17(26.23)
	Secondary	14 (29.78)	6 (7.99)	26(18.57)	32(13.34)	38(11.38)	-
	Higher secondary	4 (8.51)	-	-	-	-	-
	College	4 (8.51)	-	-	-	-	-
Occupation	Agricultural labourer	14 (29.78)	84 (97.67)	68 (48.57)	172(71.66)	166(49.70)	20(32.78)
	Business	24 (51.06)	-	13 (9.28)	-	-	-
	Hunting	-	-	33 (23.57)	34(14.17)	35(9.58)	15(22.95)
	Fishing	-	-	9 (6.46)	22(9.17)	131(38.92)	16(26.23)
	Unemployed	9 (19.16)	2 (2.33)	17 (12.12)	12(5)	3(1.80)	11(18.04)
Religion	Hindus	35 (74.46)	76 (88.37)	120 (85.72)	210(87.5)	320(95.00)	50(81.97)
	Christians	12 (25.54)	10 (11.63)	20 (14.28)	30(12.5)	25(5.00)	12(18.03)
Monthly income (in rupees)	Below 4000	-	74(86.05)	18(12.85)	114(47.50)	240(71.85)	50(81.87)
	4000-6000	14(29.78)	12(13.95)	83(59.28)	92(38.33)	81(23.96)	12(18.03)
	6000-8000	8 (17.04)	-	33(23.57)	34(14.17)	14(4.19)	-
	8000-10000	5 (10.63)	-	6 (4.28)	-	-	-
	Above 10000	20(42.55)	-	-	-	-	-
Type of family	Joint family	25(53.19)	45(52.32)	85 (60.71)	190(79.17)	290(86.83)	45(73.77)
	Nuclear	22(46.81)	41(47.68)	55 (39.29)	50(20.83)	44(13.17)	16(26.23)
Size of the family	Small	10(21.27)	20(23.26)	30 (21.42)	40(16.66)	91(26.94)	15(24.59)
	Medium	15(31.91)	19(22.09)	25 (17.85)	50(20.84)	80(23.96)	21(32.78)
	Large	22(46.82)	47(54.65)	85 (60.73)	150(62.50)	164(49.10)	26(42.63)

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Table 6 reveals that among Todas majority of the head of the households (38.29 percent) belonged to the age group of 41-50 years. Similarly majority of the head of the households of the Kurumbas (29.28 percent) and Paniyans (27.84 percent) belonged to the age group of 41-50 years. However majority of the head of the households of the Kotas (32.55 percent), Irulas (28.33 percent) and Kattunayakans (36.08 percent) were in the age group of 31- 40 years.

With regard to educational level of the head of the households, among Todas, 36.17 percent were illiterate and 29.78 percent have completed secondary education. Among Kotas, majority of the head of the households (63.95 percent) were illiterate and 28.06 percent have completed primary education. For Kurumbas, 49.28 percent of the head of the households were illiterate and no one have completed higher secondary and college education. Among Irulas, majority of the head of the households (50.83 percent) were illiterate and 35.83 percent have completed primary education. For Paniyans, 73.05 percent of the head of the households were illiterate and among Kattunayakans 73.77 percent of the head of the households were illiterate. In all tribal groups, except Todas, none of the head of the households have completed higher secondary and college education. In this context, the current study is in conformity with the view of Sujatha (1996) that majority of the head of the tribal households were illiterate.

The occupational composition of the head of the households revealed that the primary occupation of head of the Todas households was business since 51.06 percent were involved in business. Comparatively among Kotas majority of the head of the households (97.67 percent) were employed as agricultural labourers. The same phenomenon was observed with regard to Kurumbas, Irulas, Paniyans, and Kattunayakans also since respectively 48.67 percent, 71.66 percent, 49.76 percent, 32.78 percent of the head of the households were employed as agricultural labourers.

On an average, the head of the Todas households earned monthly income of Rs.7521 as compared to Kotas (Rs.1779.), Kurumbas (Rs.3886), Irulas (Rs.1200), Paniyans (Rs.800) and Kattunayakans (Rs.1300).

There was predominance of joint family system for all the tribal groups since majority of them were belonging to joint family. All the selected tribes had large sized families since in all tribal groups, majority of the respondents represented large sized category. There was dominance of Hindu religion as indicated by the fact that 74.46 percent of Todas, 88.37 percent of Kotas, 85.71 percent of Kurumbas, 87.50 percent of Irulas, 95.80 percent of Paniyans and 81.97 percent of Kattunayakans were Hindus.

Benefits of tribal welfare programme availed by the selected tribal households

Table 7 represents the benefits of tribal welfare programme availed by the selected tribal households.

Table 7
Benefits of tribal welfare programme availed by the selected tribal households

S. no	Items	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
1	Institutional support for development and marketing of tribal product	25 (33.78)	21 (24.41)	42 (30.00)	45 (18.75)	38 (11.37)	12 (19.35)
2	Vocational training	30 (63.82)	28 (32.55)	48 (34.28)	52 (21.66)	42 (12.57)	18 (29.03)
3	Assistance for income generating schemes	28 (59.57)	25 (29.06)	45 (32.14)	36 (15.00)	30 (8.98)	15 (24.19)
4	Ashram schools in Tribal sub plan area	3 (6.38)	4 (4.65)	6 (4.28)	7 (2.91)	5 (1.49)	4 (6.45)
5	Girls' hostels for scheduled tribes	29 (61.70)	27 (31.39)	43 (30.71)	61 (25.41)	38 (11.37)	21 (33.87)
6	Free coaching for scheduled tribes	34 (72.34)	30 (34.88)	38 (27.14)	48 (20.00)	36 (10.77)	19 (30.64)
7	Post-matric scholarship for scheduled tribes students	37 (78.72)	32 (37.20)	63 (45.00)	32 (13.33)	47 (14.07)	25 (40.32)
8	Rajiv Gandhi National Fellowship Scheme (RGNF)	3 (6.38)	-	-	-	-	-

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Among Todas a large percentage of households have availed facilities for vocational training and also facilities for education. Comparatively a less percent of Paniyans and Kattunayakans households have availed institutional support for development and marketing of tribal product.

4.2 . Details of family members

The details about the family members were analysed in terms of age-sex composition, educational composition, occupational composition and income composition.

4.2.1 Age - sex composition of family members:

Table 8 represents the age- sex composition of family members

Table 8
Age - sex composition of family members

Tribal groups	Persons	Age group (in years)			
		0 – 14	15 – 59	Above 60	Total
Todas	Males	42 (55.26)	25 (26.32)	5 (38.46)	72
	Females	34 (44.74)	70 (73.68)	8 (61.54)	113
	Total	76 (41.08)	95 (51)	13 (7.02)	185
Kotas	Males	80 (57.97)	52 (32.91)	10 (52.63)	142
	Females	58 (42.03)	106 (67.09)	9 (47.37)	173
	Total	138 (43.80)	158 (50.15)	19 (6.03)	315
Kurumbas	Males	107 (54.59)	130 (35.62)	6 (40.00)	243
	Females	89 (45.41)	235 (64.38)	9 (60.00)	333
	Total	196 (34.02)	365 (63.36)	15 (2.60)	576
Irulas	Males	226 (71.32)	80 (18.82)	18 (5.56)	324
	Females	90 (28.48)	360 (81.18)	14 (43.75)	464
	Total	316 (40.10)	440 (55.83)	32 (4.06)	788
Paniyans	Males	282 (76.42)	391 (48.57)	15 (62.5)	688
	Females	87 (23.57)	414 (51.43)	9 (37.5)	510
	Total	369 (30.80)	805 (67.19)	24 (2.00)	1198
Kattunayakans	Males	46 (49.46)	41 (42.70)	6 (37.5)	93
	Females	47 (50.53)	55 (49.11)	10 (62.5)	112
	Total	93 (45.36)	96 (46.82)	16 (7.80)	205

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

The proportion of family members in the age group of 0-14 years was found to be the highest among Kattunayakans (45.36 percent) and lowest among Paniyans (30.80 percent). However, the estimated work force ratio was found to be the highest among Kurumbas (63.36 percent) and lowest among Kotas (50.15 percent). The number of family members in the age group of above 60 years was found to be the highest among Todas (7.02 percent) and lowest among Paniyans (2.00 percent). The estimated old dependency ratio was found to be the highest among Todas (7.02 percent) and lowest among Paniyans (2.00 percent).

The calculated sex ratio for Todas (1569) was higher than that of Kotas (1218), Kurumbas (1370,) Irulas (1432), Paniyans (741) and Kattunayakans (1204).

4.2.2 Marital composition of family members:

Table 9 represents the marital composition of family members

Table 9**Marital composition of family members**

Tribal groups	Persons	Married	Unmarried	Widower	Total
Todas	Males	64 (53.78)	52 (43.69)	3 (2.52)	119
	Females	64 (56.63)	48 (43.36)	-	112
	Total	128 (55.17)	101 (43.96)	-	231
Kotas	Males	100 (43.85)	111 (48.68)	17 (7.45)	228
	Females	99 (57.22)	74 (42.77)	-	173
	Total	199 (49.62)	185 (46.13)	17 (4.23)	401
Kurumbas	Males	193 (50.39)	180 (46.99)	10 (2.61)	383
	Females	174 (52.25)	159 (47.77)	-	333
	Total	367 (51.25)	339 (47.34)	10 (1.39)	716
Irulas	Males	308 (54.60)	230 (40.78)	26 (4.60)	564
	Females	218 (46.98)	246 (53.01)	-	464
	Total	526 (51.16)	476 (46.30)	26 (2.53)	1028
Paniyans	Males	474 (46.37)	499 (48.82)	49 (4.79)	1022
	Females	397 (77.84)	113 (22.15)	-	510
	Total	871 (56.85)	612 (39.94)	49 (3.19)	1532
Kattunayakans	Males	119 (77.27)	25 (16.23)	10 (6.49)	154
	Females	55 (49.12)	57 (50.89)	-	112
	Total	174 (65.41)	82 (30.82)	10 (3.75)	266

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

The proportion of married family members was found to be the highest among Kattunayakans (65.41 percent) and lowest among Kotas (49.62 percent). However, the proportion of unmarried family members was found to be the highest among Kurumbas (47.34 percent).

4.3. Analysis of educational status as a component of quality of life

4.3.1. Literacy rate

Literacy level is one of the key indicators of the socio economic status of society and employment opportunities largely depend on literacy. Literacy rate denotes the proportion of the literate population in relation to total population.

Table 10 represents the literacy rate of selected tribal population

Table 10
Literacy rate of selected tribal population (in percent)

Tribes	Persons	Number of persons of above 6 years	Number of literates	Literacy rate
Todas	Males	199	156	78.39
	Females	112	89	79.46
	Total	311	245	78.77
Kotas	Males	228	124	54.38
	Females	173	76	43.93
	Total	401	200	49.87
Kurumbas	Males	383	249	65.01
	Females	333	212	63.66
	Total	719	361	50.41
Irulas	Males	564	192	34.04
	Females	464	122	26.29
	Total	1028	314	30.54
Paniyans	Males	1022	499	48.82
	Females	510	231	45.29
	Total	1532	730	47.65
Kattunayakans	Males	154	114	74.02
	Females	112	52	46.42
	Total	266	166	62.40

Source: Field survey, 2014.

Note: Literacy rates are the calculated figures based on the field survey

The overall literacy rate was found to be the highest for Todas (78.77 percent) and lowest for Irulas (30.54 percent). The male literacy rate was found to be the highest among Todas (78.39 percent) and lowest for Irulas (34.04 percent). The female literacy rate was found to be the highest among Todas (79.46 percent) and lowest among Irulas (26.29 percent). For all the tribal groups except Todas the female literacy rate was lower than that of male literacy rate. In this context, the current study is in conformity with the view of Mona Sedwal and Sangeeta Kamat (2001) that majority of tribal males were literate and majority of tribal females were illiterate.

4.3.2 Attitude of tribal parents towards education of the children

One of the greatest impediments to education in India among scheduled tribes has been their attitude towards education. The psychological impediment is fully reflected in their attitude towards education.

Table 11 represents the attitude of tribal parents towards education of boys and girls.

Table 11
Attitude of tribal parents towards education of boys and girls

Tribal groups	Favourable		Unfavourable	
	Boys	Girls	Boys	Girls
Todas	15 (31.91)	19 (40.42)	6 (12.76)	7 (14.89)
Kotas	23 (26.74)	27 (31.39)	19 (22.09)	17 (19.76)
Kurumbas	85 (60.71)	28 (20.00)	15 (10.71)	12 (8.57)
Irulas	42 (17.5)	52 (21.66)	86 (35.83)	60 (25.00)
Paniyans	79 (23.65)	64 (19.16)	95 (28.44)	96 (28.74)
Kattunayakans	14 (22.95)	11 (18.03)	28 (45.90)	8 (13.11)

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Majority of parents of Todas and Kurumbas had favourable attitude for education of boys and girls. However the parents of Paniyans and Kattunayakans had unfavourable attitude towards education of boys and girls.

4.3.3 Association between attitude towards education and the selected socio economic characteristics of the households:

The study tried to find out the association between attitude towards education with age of the head of the family, monthly family income, type of the family and size of the family by using Chi-square analysis.

Table 13 represents the estimated Chi-square values of association between attitude towards education and the selected socio economic characteristics of the households.

Table 12

Estimated Chi-square values of association between attitude towards education and the selected socio economic characteristics of the households

Tribal groups	Age		Monthly family income		Size of the family		Type of the family	
	Chi-square value	Inference	Chi-square value	Inference	Chi-square value	Inference	Chi-square value	Inference
Todas	3.81	Insignificant association	7.61	Significant association	4.64	Significant association	1.39	Insignificant association
Kotas	4.95	Significant association	8.28	Significant association	3.23	Insignificant association	2.29	Insignificant association
Kurumbas	5.38	Significant association	2.26	Insignificant association	0.16	Insignificant association	0.27	Insignificant association
Irulas	2.16	Insignificant association	0.13	Insignificant association	4.28	Significant association	2.13	Insignificant association
Paniyans	1.86	Insignificant association	0.11	Insignificant association	3.28	Insignificant association	2.52	Insignificant association
Kattunayakans	1.28	Insignificant association	2.10	Insignificant association	2.28	Insignificant association	3.52	Insignificant association

Source: Calculated values based on field survey

$$\chi^2_{0.05} = 3.84$$

Table 12 makes it evident that there exists inter-tribe variation in the association of the attitude towards tribal education and selected variables. For Todas, family income and size of the family were found to have significant association with the attitude towards education, while for Kotas, age of the head of the household and family income were found to be the significant factors. For Kurumbas, the significant association was found only with age of the head of the family. For Irulas, the significant association was found only with size of the family. For Paniyans and Kattunayakans, there was insignificant association of all the selected factors and attitude towards education. In this context, the current study is in conformity with the view of Krithiga (2011) that attitude towards education for Paniyans and Kattunayakans is not significantly associated with socio economic characteristics of the households.

4.3.4. Stage wise enrolment

Tribal students are enrolled at the primary level, secondary level, higher secondary level and college. Table 13 represents the stage wise enrolment for the selected tribal groups.

Table 13**Stage wise enrolment for the selected tribal groups**

Tribal group	Persons	Primary	Secondary	Higher secondary	College
Todas	Boys	26 (99.63)	34 (96.03)	27 (92.65)	39 (86.04)
	Girls	34 (98.02)	28 (92.65)	15 (89.12)	29 (85.89)
	Total	60 (97.85)	62 (91.98)	42 (92.06)	68 (89.05)
Kotas	Boys	40 (88.82)	15 (72.06)	13 (68.42)	14 (60.00)
	Girls	29 (87.87)	27 (82.09)	10 (66.66)	13 (56.47)
	Total	69 (88.31)	42 (85.03)	23 (82.64)	27 (79.97)
Kurumbas	Boys	47 (92.15)	40 (83.02)	49 (72.45)	16 (66.19)
	Girls	43 (78.88)	86 (75.48)	52 (70.00)	15 (61.72)
	Total	90 (89.81)	126 (86.89)	101 (85.59)	31 (62.00)
Irulas	Boys	86 (87.75)	52 (70.27)	23 (54.76)	10 (33.33)
	Girls	65 (83.33)	45 (47.87)	35 (40.69)	20 (21.27)
	Total	151 (85.79)	97 (57.73)	58 (45.31)	30 (24.19)
Paniyans	Boys	162 (70.00)	144 (62.72)	123 (45.92)	-
	Girls	144 (78.88)	42 (55.26)	32 (50.79)	-
	Total	306 (89.47)	186 (67.88)	155 (62.88)	-
Kattunayakans	Boys	29 (82.85)	10 (40.00)	8 (28.57)	-
	Girls	23 (57.50)	5 (44.28)	7 (31.17)	-
	Total	52 (74.28)	15 (33.33)	15 (25.31)	-

Source: Field survey, 2014.

Note: Figures in parentheses indicate enrolment rate

Among Todas, of the total children to be enrolled in the primary school only 97.85 percent were enrolled. The enrolment rate at the college level (89.05 percent) was lower than that of higher secondary level (92.06 percent) and secondary level (91.98 percent). For Kotas, enrolment rate at the primary level (88.31 percent) was higher than that of secondary level (85.03 percent) and higher secondary level (82.64 percent).

Similarly among Kurumbas, the enrolment rate at the primary level (89.81 percent) was higher than that of secondary level (86.89 percent) and higher secondary level (85.59 percent). Among Irulas, primary school enrolment was found to be higher (85.79 percent). For Paniyans, the enrolment rate at primary stage (89.47 percent) was higher than that of secondary level (67.88 percent) and higher secondary level (62.88 percent.) For Kattunayakans, the primary stage enrolment rate (74.28 percent) was exceeding that of secondary stage enrolment rate (33.33 percent) and higher secondary stage enrolment rate (25.31 percent).

4.3.5. Stage wise dropout

Tribal students drop out at the primary level, secondary level, higher secondary level and college. Table 14 represents the stage wise dropout for the selected tribal groups.

Table 14

Stage wise dropout for the selected tribal groups

Tribal group	Persons	Primary	Secondary	Higher secondary	College
Todas	Boys	1 (3.84)	2 (5.88)	2 (7.40)	-
	Girls	2 (5.88)	3 (10.71)	5 (33.33)	2 (6.89)
	Total	3 (5.00)	5 (11.90)	7 (31.81)	2 (2.94)
Kotas	Boys	2 (5.00)	3 (20.00)	4 (30.76)	1 (7.14)
	Girls	5 (17.24)	7 (21.21)	8 (80.00)	5 (38.46)
	Total	7 (10.14)	10 (30.30)	12 (52.17)	6 (22.22)
Kurumbas	Boys	4 (8.51)	5 (12.50)	6 (12.24)	3 (18.75)
	Girls	8 (18.60)	10 (11.62)	12 (23.07)	5 (33.33)
	Total	12 (13.33)	15 (11.90)	18 (17.82)	8 (25.80)
Irulas	Boys	5 (5.81)	8 (15.38)	7 (30.43)	2 (20.00)
	Girls	9 (13.84)	10 (22.22)	13 (37.14)	5 (25.00)
	Total	14 (9.27)	18 (18.55)	20 (34.48)	7 (23.33)
Paniyans	Boys	7 (4.32)	10 (6.94)	12 (9.75)	-
	Girls	11 (7.63)	11 (26.19)	18 (56.25)	-
	Total	18 (5.88)	25 (13.44)	30 (19.35)	-
Kattunayakans	Boys	7 (24.13)	3 (60.00)	4 (50.00)	-
	Girls	8 (34.78)	5 (50.00)	5 (71.42)	-
	Total	15 (28.84)	8 (53.33)	9 (52.94)	-

Source: Field survey, 2014.

Note: Figures in parentheses indicate dropout rate

Table 14 indicates that at all levels of education, the lowest dropout rate was found among the Todas. This implies that Todas attach much importance to education and they see that the students who were enrolled have completed education. An analysis of stage wise dropout indicated that the dropout rate was the lowest at the primary level. But it was found to be more at the higher secondary / college level.

4.3.6. Place of study

The current study found that 45.94 percent of Todas boys, 100 percent of Kotas boys, 74.04 percent of Kurumbas boys, 100 percent of Kattunayakans boys, 100 percent of Irulas boys and 100 percent of Paniyan boys have studied in Government educational institutions. In contrast, 54.06 percent of Todas boys and 25.92 percent of Kurumbas boys were educated in private educational institutions. Similarly, 63.22 percent of Todas girls, 100 percent of Kotas girls, 65.26 percent of Kurumbas girls, 100 percent of Kattunayakans girls, 100 percent of Irulas girls and 100 percent of Paniyans girls have studied in Government educational institutions. In contrast, 36.78 percent of Todas girls and 34.74 percent of Kurumbas girls were educated in private educational institutions.

4.3.7. Medium of education

The study also revealed that 45.94 percent of Todas boys, 100 percent of Kotas boys, 74.04 percent of Kurumbas boys, 100 percent of Kattunayakan boys, 100 percent of Irulas boys and 100 percent of Paniyan boys were educated in Tamil medium. Similarly 55.45 percent of Todas girls, 100 percent of Kotas girls, 69.04 percent of Kurumbas girls, 100 percent of Kattunayakan girls, 100 percent of Irulas girls and 100 percent of Paniyan girls were educated in Tamil medium.

4.3.8. Gender disparity in enrolment

Table 15 represents the calculated gender disparity index in enrolment for the selected tribal groups.

Table 15
Gender disparity index in enrolment for the
selected tribal groups (in percent)

Tribal group	Primary	Secondary	Higher secondary	College
Todas	76.47	121.42	180	134.48
Kotas	137.93	55.55	130	107.69
Kurumbas	52.22	46.51	94.23	106.66
Irulas	132.30	46.39	65.71	66.66
Paniyans	112.5	342.81	384.37	-
Kattunayakans	126.08	200	114.28	-

Source: Field survey, 2014.

Table 15 reveals that the gender disparity index in primary education was found to be the highest among Kotas (137.93 percent) and lowest among Todas (76.47 percent). However gender disparity in college education was found to be the highest among Todas (134.48 percent) and lowest among Irulas (66.66 percent).

4.3.9. Cost of education

The education expenses incurred by the family comprise of expenses on books, note books, uniform, examination fees, transport etc. Since in tribal areas private schools are very rare, children have to attend only vernacular schools supported by the State Government. People who can afford generally tend to enrol their children in English medium schools, despite being very expensive. Table 16 represents item wise per head educational expenditure incurred by the selected tribal households.

Table 16

**Item wise per head educational expenditure incurred by the
selected tribal households (in rupees)**

S no.	Tribal group Items	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
1	Books and note books	3000 (34.09)	2500 (33.78)	2300 (37.39)	1600 (38.09)	1500 (35.71)	1000 (29.85)
2	Uniform	1500 (17.04)	1300 (17.56)	1150 (18.69)	700 (16.27)	800 (19.04)	600 (17.91)
3	Examination fees	2000 (22.72)	1800 (24.32)	1450 (23.57)	800 (18.60)	500 (11.90)	700 (20.89)
4	Transport	800 (9.09)	500 (6.75)	300 (4.87)	300 (6.97)	400 (9.52)	300 (8.95)
5	Hostel fees	1000 (11.36)	900 (12.19)	500 (8.13)	600 (26.08)	750 (17.85)	550 (16.41)
6	Accessories and others	500 (5.68)	400 (5.40)	450 (7.31)	300 (6.97)	250 (5.95)	200 (5.97)
	Total	8800	7400	6150	4300	4200	3350

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total expenditure

Table 16 indicates that per head educational expenditure was higher for Todas (Rs.8800) and lower for Kattunayakans (Rs.3350). This might to be due to high enrolment rate of Todas. In all the tribal groups expenditure on books and note books was predominant and it ranged from 30 percent to 38 percent.

4.3.10. Facilities availed by the selected tribal children

Tribal children were availing the facilities of free books, free uniform, free transport, scholarship etc

Table 17 represents the facilities availed by the selected tribal children

Table 17

Facilities availed by the selected tribal children

Tribal group	Persons	Free text books and stationary items	Free uniform	Free transport facilities	Scholarship	Hostel facilities	Food	Cycle
Todas	Boys	26 (20.63)	24 (19.04)	10 (7.93)	19 (15.07)	10 (7.93)	20 (15.87)	17 (13.49)
	Girls	34 (32.07)	5 (4.71)	15 (14.15)	20 (18.86)	9 (8.49)	8 (7.54)	15 (14.15)
	Total	60 (25.86)	29 (12.5)	25 (10.77)	39 (16.81)	19 (8.18)	28 (12.18)	32 (13.79)
Kotas	Boys	25 (30.48)	10 (12.19)	13 (15.85)	7 (8.53)	15 (18.29)	5 (6.09)	7 (8.53)
	Girls	15 (18.51)	12 (14.81)	10 (12.34)	13 (16.04)	15 (18.51)	9 (11.11)	5 (6.17)
	Total	40 (23.80)	22 (13.49)	23 (14.11)	20 (12.26)	30 (18.40)	14 (8.58)	12 (7.36)
Kurumbas	Boys	15 (9.86)	20 (13.15)	49 (32.23)	16 (10.52)	17 (11.18)	15 (9.86)	20 (13.15)
	Girls	43 (21.93)	31 (15.81)	40 (20.40)	15 (7.65)	25 (12.75)	12 (6.12)	30 (15.30)
	Total	58 (16.66)	51 (14.65)	89 (25.57)	31 (8.90)	42 (12.06)	27 (7.75)	50 (13.96)
Irulas	Boys	24 (14.03)	52 (30.40)	23 (13.45)	10 (5.84)	16 (9.35)	25 (14.61)	21 (12.28)
	Girls	45 (27.27)	20 (12.12)	12 (7.27)	20 (12.12)	20 (12.12)	25 (15.15)	23 (13.93)
	Total	69 (20.53)	72 (21.42)	35 (10.42)	30 (8.92)	36 (10.71)	50 (14.88)	44 (13.09)
Paniyans	Boys	140 (32.63)	56 (13.05)	123 (28.67)	42 (9.79)	25 (5.82)	27 (6.29)	16 (3.72)
	Girls	44 (20.18)	42 (22.02)	32 (14.67)	30 (13.76)	25 (11.43)	33 (15.13)	12 (5.50)
	Total	184 (28.43)	98 (15.14)	155 (23.95)	86 (13.29)	50 (7.72)	60 (9.27)	28 (4.32)
Kattunayakans	Boys	10 (21.27)	4 (8.51)	8 (17.02)	9 (19.14)	7 (14.89)	5 (10.63)	4 (8.51)
	Girls	23 (39.65)	5 (8.62)	7 (12.06)	3 (5.17)	5 (8.62)	8 (13.79)	7 (12.06)
	Total	33 (31.42)	9 (8.57)	15 (14.28)	12 (11.42)	12 (11.42)	13 (12.38)	11 (10.47)

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Table 17 indicates that in all tribal groups the percentage of children getting free text books and stationary items was higher. However the percentage of students getting scholarship was found to be more among Todas as compared to other tribal groups. This might be the reason for high educational status of Todas in comparison to other tribal groups.

4.3.11. Composite educational index

Table 18 represents the frequency distribution of composite educational index for the selected tribal groups

Table 18
Frequency distribution of composite educational index for the selected tribal groups

Tribes	Persons	0.30 – 0.40	0.41 -0.50	0.51 -0.6	0.61 -0.70	0.71 -0.80	0.81 -0.90	0.91 -1.00	Average
Todas	Boys	-	5	50	10	7	5	-	0.56
	Girls	-	7	20	40	15	-	-	0.69
	Total	-	12	70	50	22	5	-	0.79
Kotas	Boys	-	24	30	70	-	-	-	0.60
	Girls	-	40	10	26	-	-	-	0.48
	Total	-	64	40	96	-	-	-	0.77
Kurumbas	Boys	-	10	25	49	120	25	20	0.74
	Girls	-	160	5	12	20	125	-	0.63
	Total	-	170	30	61	140	150	20	0.67
Irulas	Boys	52	25	13	19	29	54	-	0.53
	Girls	15	28	24	20	35		-	0.57
	Total	67	53	37	39	64	54	-	0.59
Paniyans	Boys	366	50	53	-	-	-	-	0.38
	Girls	189	42	-	-	-	-	-	0.36
	Total	555	92	-	-	-	-	-	0.36
Kattunayakans	Boys	14	55	45	-	-	-	-	0.47
	Girls	-	29	23	-	-	-	-	0.49
	Total	14	84	68	-	-	-	-	0.48

Source: Field survey, 2014.

Among selected tribal groups, on an average, Todas have highest composite educational index (0.79) and Paniyans have lowest composite educational index (0.36). The composite educational index for boys was found to be the highest among Kurumbas (0.74) while composite educational index for girls was found to be the highest among Todas (0.69). For all the tribal groups except Todas, composite educational index for girls was lower than that of boys.

Figure 2 represents the composite educational index for the selected tribal groups.

Figure 2

Composite educational index for the selected tribal groups

Figure 2(A)

Figure 2(D)

Figure 2(B)

Figure 2(E)

Figure 2(C)

Figure 2(F)

4.4. Analysis of economic status as a component of quality of life

4.4.1. Occupational composition of family members:

Table 19 represents the occupational composition of family members

Table 19

Occupational composition of family members

Tribes	Persons	Agricultural labourer	Own cultivation	Business	Hunting	Fishing	Bee keeping	Employment in organised sector	Total
Todas	Males	15 (41.66)	5 (13.88)	16 (44.44)		-	-	-	36
	Females	8 (12.30)	-	50 (76.92)	-	-	-	7 (10.76)	65
	Total	23 (22.77)	5 (4.95)	66 (65.34)		-	-	7 (6.93)	101
Kotas	Males	15 (48.38)	-	-	-	16 (51.61)	-	-	31
	Females	85 (100)	-	-	-	-	-	-	85
	Total	100 (86.20)	-	-	-	16 (13.79)	-	-	116
Kurumbas	Males	40 (43.01)	13 (13.97)	-	27 (29.03)	-	13 (13.97)	-	93
	Females	129 (100)	-	-	-	-	-	-	129
	Total	169 (76.12)	13 (5.85)	-	27 (12.16)	-	13 (5.85)	-	222
Irulas	Males	150 (61.47)	-	-	40 (16.39)	-	54 (22.13)	-	244
	Females	250 (83.89)	-	-	8 (2.68)	40 (13.42)	-	-	298
	Total	400 (73.80)	-	-	48 (8.85)	40 (7.38)	54 (9.96)	-	542
Paniyans	Males	350 (71.72)	-	-	65 (13.31)	73 (14.96)	-	-	488
	Females	270 (91.90)	-	-	-	-	27 (9.09)	-	297
	Total	620 (78.98)	-	-	65 (8.28)	100 (12.74)	-	-	785
Kattunayakans	Males	53 (72.60)	-	-	-	20 (27.39)	-	-	73
	Females	94 (100)	-	-	-	-	-	-	94
	Total	147 (88.02)	-	-	-	20 (11.97)	-	-	167

Source: Field survey, 2014

Note: Figures in parentheses indicate percentage to total

Among Todas, of total 185 family members, 101 were employed and labour force participation rate was found to be 54.59 percent. The male labour force participation rate was estimated to be 44.44 percent while female labour force participation rate was found to be 57.52 percent. Majority of males (44.44 percent) and females (76.92 percent) were involved in business.

Among Kotas, of total 315 family members, 116 members were employed and labour force participation rate was found to be 36.82 percent. The male labour force participation rate was found to be 21.83 percent while female labour force participation rate was 49.13 percent. Majority of the male members of Kotas (51.61 percent) were employed in fishing while all the female members were employed as agricultural labourers. For Kurumbas, the overall labour force participation rate was 60.82 percent and male labour force participation rate was 71.53 percent and female labour force participation rate was 54.89 percent. Of total males employed, majority of them (43.01 percent) were employed as agricultural labourers while all female members were employed as agricultural labourers.

For Irulas, the overall labour force participation rate was 68.78 percent. While male labour force participation rate was 75.30 percent, female labour force participation rate was 64.22 percent. Of total males employed, majority of them (61.47 percent) were employed as agricultural labourers. Similarly majority of females (83.89 percent) were employed as agricultural labourers.

Among Paniyans, of total 1198 family members, 785 were employed and labour force participation rate was found to be 65.52 percent. The male labour force participation rate was estimated to be 70.93 percent while female labour force participation rate was found to be 58.23 percent. Of the total males employed, majority of them were employed as agricultural labourers (71.72 percent) and similarly majority of females were employed as agricultural labourers (91.90 percent).

Among Kattunayakans, of total 205 family members, 167 were employed and labour force participation rate was found to be 81.46 percent. The male labour force participation rate was estimated to be 78.49 percent while female labour force participation rate was found to be 83.92 percent. Of the total males employed, majority of them (72.60 percent) were employed as agricultural labourers while all female members were employed as agricultural labourers. In this context, the current study is in conformity with the observation by Debjani Roy (2012) that majority of tribal households were working as agricultural labourers and only less number were doing business.

4.4.2. Subsidiary occupation of family members:

Table 20 represents the subsidiary occupation of family members

Table 20
Subsidiary occupation of family members

Subsidiary occupation	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Poultry keeping	22 (51.16)	-	53 (44.16)	18 (26.47)	-	-
Cattle and sheep rearing	21 (48.83)	-	-	50 (73.52)	-	-
Bee keeping	-	-	67 (55.83)	-	-	-
Total	43	-	120	68	-	-

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

For Todas, poultry keeping was the major subsidiary occupation since 51.16 percent were involved in poultry keeping. Majority of Kurumbas (55.83 percent) were involved in bee keeping and majority of Irulas (73.52 percent) were involved in cattle and sheep rearing. However Kotas, Panniyans and Kattunayakans did not have any subsidiary occupation.

4.4.3. Income composition of family members:

Table 21 represents the monthly income composition of family members

Table 21**Monthly income composition of family members (in rupees)**

Tribes	Persons	Below 2000	2001- 4000	4001- 6000	6001- 8000	8001- 10000	Above 10001	Total
Todas	Males	-	1 (2.77)	3 (8.33)	4 (11.11)	8 (22.22)	20 (72.22)	36
	Females	6 (9.23)	4 (6.15)	7 (10.76)	2 (3.07)	15 (23.07)	31 (47.69)	65
	Total	6 (5.94)	5 (4.95)	10 (9.90)	6 (5.94)	23 (22.77)	51 (50.49)	101
Kotas	Males	-	3 (3.48)	7 (22.58)	5 (16.12)	6 (19.35)	10 (32.25)	31
	Females	15 (17.64)	15 (17.64)	10 (11.76)	10 (11.76)	35 (41.17)	-	85
	Total	15 (12.93)	16 (13.79)	17 (14.65)	15 (12.93)	43 (37.06)	10 (8.62)	116
Kurumbas	Males	3 (3.22)	22 (23.65)	22 (23.65)	6 (6.45)	28 (30.12)	12 (12.90)	93
	Females	7 (5.42)	20 (15.50)	21 (16.27)	22 (17.05)	59 (45.73)	-	129
	Total	10 (4.50)	42 (18.91)	43 (19.36)	28 (12.61)	87 (39.18)	12 (5.40)	222
Irulas	Males	100 (40.98)	50 (20.49)	21 (8.61)	73 (29.92)	-	-	244
	Females	172 (57.72)	60 (20.13)	35 (11.74)	31 (3.69)	-	-	298
	Total	272 (50.18)	110 (20.29)	56 (10.33)	104 (19.18)	-	-	542
Paniyans	Males	425 (87.09)	38 (7.78)	25 (5.12)	-	-	-	488
	Females	340 (85.64)	27 (6.80)	30 (7.55)	-	-	-	397
	Total	765 (86.44)	65 (7.34)	55 (6.21)	-	-	-	885
Kattunayakans	Males	31 (42.46)	30 (41.09)	12 (16.43)	-	-	-	73
	Females	50 (53.19)	21 (22.34)	23 (24.46)	-	-	-	94
	Total	81 (48.50)	51 (30.54)	35 (20.95)	-	-	-	167

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

On an average, per month, the male members of Todas earned Rs. 14325 while the female members earned Rs.13465 and Todas as a whole earned Rs.15650. For Kotas, the average income of males (Rs.13560) was higher than that of females (Rs.12000). For Kurumbas, the average income for males was Rs. 9365 while the average income for females was Rs.8350. For Irulas, the average income of males (Rs.1380) was higher than that of females (Rs.1230). For Paniyans, the average income for males was Rs.650 while the average income for females was Rs.500. For Kattunayakans, the average income for males was Rs.850 while the average income for females was Rs.655. In this context, the current study is in tune with the view of Antara Dhargupta (2009) that majority of tribal households have the monthly income of below Rs.15000.

4.4.4. Property possessed:

The property possessed by the tribals was analysed in terms of land, house, jewels, vehicles etc.

Table 22 provides the details about the property possessed by the selected tribal households.

Table 22
Property possessed by the selected tribal households

Item	Tribal groups					
	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Land (Quantity in cents)						
1- 5	5 (10.64)		15 (10.71)	28 (11.66)	40 (11.97)	20 (32.78)
6-10	20 (42.55)	18 (20.93)	30 (21.42)	19 (7.92)	-	7 (11.47)
11-15	7 (14.89)	28 (32.55)	15 (10.71)	7 (2.92)	-	-
16-20	10 (21.28)	14 (16.27)	8 (5.71)	-	-	-
20-25	5 (10.64)	-	-	-	-	-
House(Value in rupees)						
Below 100000	4 (8.51)	4 (4.65)	20 (14.28)	50 (20.83)	175 (53.03)	41 (65.57)
100001 – 200000	2 (4.25)	28 (32.55)	37 (26.42)	48 (20.00)	88 (26.66)	15 (24.59)
200001-300000	11 (23.40)	27 (31.39)	53 (37.85)	89 (37.08)	57 (17.27)	6 (9.84)
300001 – 400000	10 (21.28)	17 (19.77)	25 (17.86)	53 (22.08)	10 (3.03)	-
Above 400001	20 (42.55)	10 (11.63)	5 (3.58)			-
Jewels(Quantity in grams)						
Below 8	-	-	-	180 (75.00)	250 (75.75)	35 (57.38)
9 -16	14 (29.78)	20 (23.25)	13 (9.28)	35 (14.58)	65 (19.69)	20 (32.78)
17-24	9 (19.14)	15 (17.44)	23 (16.42)	-	-	-
25-32	10 (25.53)	8 (9.30)	21 (15)	-	-	-
33-40	7 (14.89)	14 (16.28)	18 (12.85)	-	-	-
Above 41	6 (12.76)	4 (4.65)	15 (10.71)	-	-	-
Vehicle(value in rupees)						
Below 20000	-	-	-	10 (4.16)	-	-
20001-40000	12 (25.53)	8 (9.30)	20 (14.28)	5 (2.08)		7 (8.14)
40001-60000	15 (31.91)	6 (6.98)	15 (10.71)	2 (0.83)		4 (4.65)
60001-80000	10 (21.28)	-	4 (2.86)	-	-	-
Above 80001	4 (4.25)	-	-	-	-	-

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

An analysis of land ownership indicates that the Todas and Kurumbas had more land ownership. On an average, Todas possessed 11.42 cents of land while Kurumbas had 8.67 cents of land. The average value of the house owned by Todas (Rs.4,03,597) was higher as compared to that of Kotas (Rs.3,43,411), Kurumbas (Rs.2,87,421), Irulas (Rs.1,55,500), Paniyans (Rs.1,12,370) and Kattunayakans (Rs.1,25,700). The average quantity of jewels owned by Todas (24.34 grams) was exceeding that of Kotas (23.67 grams), Kurumbas (27.91 grams), Irulas (5.30 grams) Paniyans (5.65 grams) and Kattunayakans (6.90 grams). The average value of vehicle possessed by in Kotas was high (Rs.28765) as compared to that of Todas (Rs.27659), Kurumbas (Rs.20000), Irulas (Rs.3500) and Kattunayakans (Rs. 4100).

4.2.1 Details about the consumer durables owned by the selected tribal groups:

The selected tribal households possessed consumer durables like television, radio, washing machine, mobile phone, landline phone etc.

Table 23 represents frequency distribution of selected tribal households owning consumer durables.

Table 23

**Frequency distribution of selected tribal households owning
consumer durables**

Item	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Television	47 (100)	86 (100)	140 (100)	240 (100)	334 (100)	62 (100)
Radio	12 (25.53)	-	9 (6.43)	40 (16.67)	150 (44.91)	5 (8.19)
Washing machine	26 (55.32)	-	25 (17.86)	-	-	-
Mobile phone	47 (100)	86 (100)	140 (100)	240 (100)	334 (100)	62 (100)
Landline phone	10 (21.27)	-	-	-	-	-

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

All the households of the selected tribal groups were having television and mobile phones. However, only 25.53 percent of Todas households, 6.43 percent of Kurumbas households, 16.67 percent of Irulas households 44.91 percent of Paniyan households and 8.19 percent of Kattunayakan households had radio. While 55.31 percent of Todas had washing machine only 17.86 percent of Kurumbas had washing machine. In this context, the current study is in conformity with the view of Sujoy Dasand Niranjan Roy (2013) that majority of tribal households have television and mobile phone.

4.4.6. Family expenditure:

The family expenditure of the selected tribal households is related to food, clothing, education, health, transport, religious function, family function etc.,.

Table 24 represents the item wise average monthly family expenditure of the selected tribal households.

Table 24

**Frequency distribution of monthly family expenditure for the
selected tribal households**

s.no	Item	Range	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
1	Food	Below 2000	-	-	25	95	250	39
		2000-4000	13	41	85	65	55	15
		4000-6000	16	23	13	48	29	7
		6000-8000		22	17	32	-	-
		Above 8000	18	-	-	-	-	-
2	Clothing	Below 1000	10	14	15	88	238	35
		1000-2000		22	78	54	62	18
		2000-3000	25	34	43	72	34	8
		Above 3000	12	16	4	26		
3	Education	Below 2000	-	19	25	102	278	32
		2000-4000	15	27	82	72	56	29
		4000-6000	19	20	13	66	-	-
		6000-8000	4	20	20	-	-	-
		Above 8000	10	-	-	-	-	-
4	Health	Below 500	15	55	95	155	289	39
		500-1000	17	18	28	46	45	22
		1000-1500	10	13	17	39	-	-
		1500-2000	5	-	-	-	-	-
		Above 2000	-	-	-	-	-	-
5	Transport	Below 100	14	70	58	86	290	58
		100-200	-	16	82	19	34	3
		200-300	-	-	-	135	10	
		Above 300	33	-	-	-	-	-
6	Religious function	Below 1000			95	195	290	15
		1000-2000	25	26	29	45	44	34
		2000-3000	17	18	16			12
		Above 3000	5	42				
7	Family function	Below 1000	20	29	195		297	8
		1000-2000	-	29	55	198	37	54
		2000-3000	15	28	-	42	-	-
		Above 3000	12	-	-	-	-	-
8	Rent	Below 1000	-	-	-	-	-	-
		1000-2000	-	10	-	16	30	12
		Above 2000	-	-	15	-	-	-
9	Others	Below 500	5	19	126	227	334	36
		500-1000	15	67	14	13	-	26
		1000-1500	17	-	-	-	-	-
		1500-2000	10	-	-	-	-	-
		Above 2000		-	-	-	-	-

Source: Field survey, 2014.

On an average per month, Todas spend Rs.5978 on food, Rs.1095 on clothing, Rs.3117 on education, Rs.1712 on religious function, Rs.2094 on family function and Rs. 488 on health. Kotas spend Rs.4558 on food, Rs. 1295 on clothing, Rs. 3000 on education, Rs.2569 on religious function and Rs.2488 on family function. Kurumbas spend Rs.3314 on food, Rs.1235 on clothing, Rs. 2557 on education and Rs.982 on religious function. Irulas spend Rs.1377 on food, Rs.800 on clothing, Rs.426 on education and Rs.295 on religious function. Paniyans spend Rs. 1676 on food, Rs.500 on clothing, Rs.356 on education and Rs.236 on religious function. Kattunayakans spend Rs.1950 on food, Rs.400 on clothing, Rs.545 on education and Rs.245 on religious function.

Table 25 represents the item wise percentage of family expenditure for the selected tribal households.

Table 25
Item wise percentage of family expenditure for the
selected tribal households

Item	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Food	40.34	31.81	37.77	32.67	45.01	45.01
Clothing	7.38	9.04	14.15	18.98	13.43	9.23
Education	21.03	20.94	29.14	11.08	9.56	12.58
Health	3.29	2.42	2.81	6.64	1.63	14.88
Transport	1.24	0.51	1.97	4.00	1.34	1.45
Religious function	11.55	17.90	2.30	6.00	6.30	5.60
Family function	13.17	17.00	10.82	17.79	15.67	13.26
Rent	-	0.36	0.09	0.86	0.03	0.05
Others	2.00	0.03	1.00	2.00	2.00	0.01

Source: Field survey, 2014.

For Todas, food expenditure accounted for 40.34 percent while clothing accounted for 7.38 percent and family function accounted for 13.17 percent of total expenditure. For Kotas, expenditure on food was the dominant item of expenditure since it accounted for 31.81 percent of total expenditure. Similarly Kurumbas spent major part of expenditure on food (37.77percent). While Irulas spent 32.67 percent on food, Paniyans and Kattunayakans spend 45.01 percent on food. In this context the current study supports the view of Venkateswara Rao (2011) and Pulla Rao (2013) that tribal households spend a high proportion of their incomes on food items than on non food items.

Figure 3 represents the item wise percentage of family expenditure for the selected tribal households.

Figure 3

Item wise percentage of family expenditure for the selected tribal households

Figure 3(A)

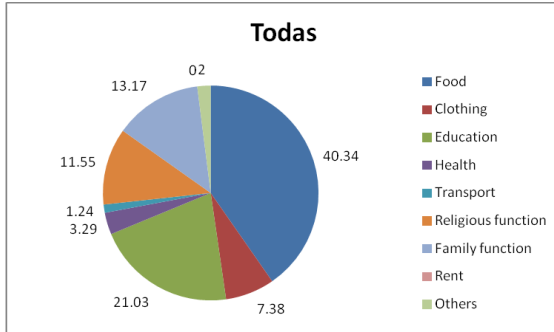


Figure 3(D)

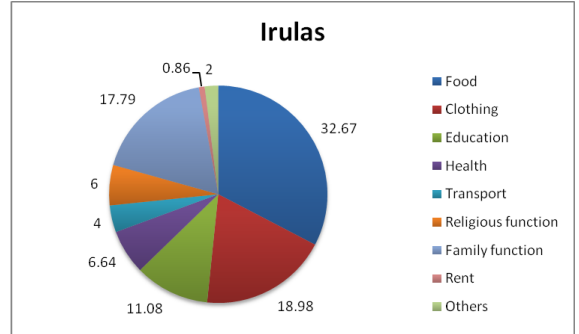


Figure 3(B)

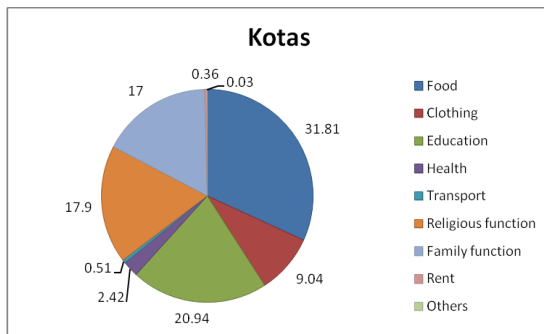


Figure 3(E)

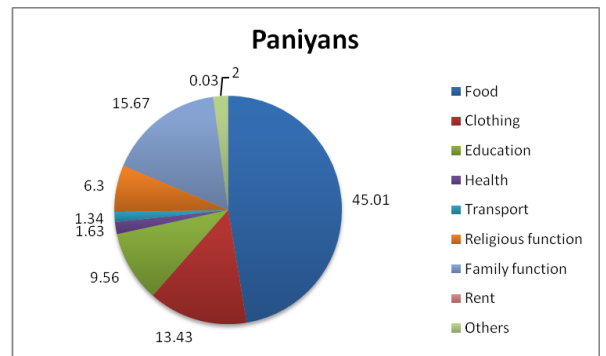


Figure 3(C)

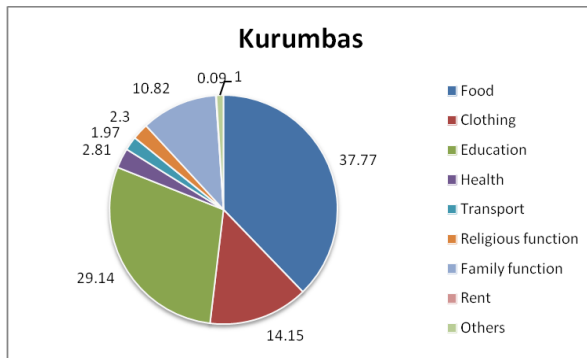
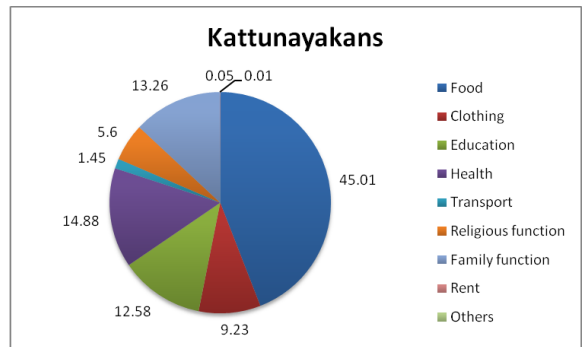


Figure 3(F)



4.4.7. Savings:

Table 26 represents the amount of savings by the selected tribal households

Table 26

Amount of savings by the selected tribal households (in rupees)

Amount	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Below 1000	-	16 (41.02)	25 (25.00)	85 (100)	-	-
1001-2000	9 (28.13)	-	25 (25.00)	-	-	-
2001-3000	4 (12.50)	-	12 (12.00)	-	-	-
3001-4000	6 (18.75)	4 (10.25)	27 (27.00)	-	-	-
4001-5000	9 (28.13)	7 (17.94)	8 (8.00)	-	-	-
Above 5001	4 (12.5)	12 (30.76)	3 (3.00)	-	-	-
Total	32	39	100	85	-	-

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

The average amount of savings for Todas (Rs.3343) was found to be higher as compared to Kotas (Rs.3064) and Kurumbas (Rs.2270). The average amount of savings for Irulas was below Rs. 500 and Paniyans and Kattunayakans were not having savings.

The major form of savings for Todas was cash in hand, deposits in banks, post office and chit fund. For Kotas, the popular mode of savings was banks and chit funds while for Kurumbas it was cash in hand, deposits in banks and chit funds.

4.4.8. Reasons for savings:

Table 27 represents the reasons for savings by the selected tribal households

Table 27

Reasons for savings by the selected tribal households

Reason	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
For education	18 (56.25)	19 (48.71)	33 (23.57)	45 (52.94)	-	-
For marriage	6 (18.75)	15 (38.46)	18 (12.86)	40 (47.06)	-	-
For medical expenditure	4 (12.50)	5 (12.82)	31 (22.14)	-	-	-
For the purchase of house	4 (12.50)	-	18 (12.86)	-	-	-

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Table 27 reveals that the main reason for savings was to educate their children since 56.25 percent of Todas, 48.71 percent of Kotas, 23.57 percent of Kurumbas and 52.94 percent of Irulas save for educating their children.

4.4.9. Debt:

Table 28 represents the amount of debt incurred by the selected tribal households

Table 28**Amount of debt incurred by the selected tribal households (in rupees)**

Amount	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Below 1000	6 (12.76)	-	-	75 (31.25)	85 (25.75)	-
1001-2000	2 (4.25)	-	30 (21.23)	-	39 (11.81)	37 (60.65)
2001-3000	8 (17.02)	10 (21.28)	25 (17.85)	36 (15.00)	-	9 (14.75)
3001-4000	2 (4.25)	7 (8.14)	-	25 (10.42)	40 (12.12)	-
4001-5000	-	-	-	-	25 (7.57)	-
Above 5001	9 (19.14)	-	-	-	-	-
Total	27	17	55	136	189	46

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

The average amount of debt obtained was found to be the highest among Paniyans (Rs.7679) and lowest among Todas (Rs.1755). The selected tribal households were getting debt from money lenders, banks and friends.

4.4.10. Reasons for debt:

Table 29 represents the reasons for debt by the selected tribal households.

Table 29**Reasons for debt by the selected tribal households**

Source	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
For education	10 (37.03)	10 (58.82)	10 (18.18)	75 (31.25)	85 (25.75)	25 (40.98)
For marriage	9 (33.33)	3 (17.65)	20 (36.36)	25 (10.42)	50 (15.15)	12 (19.67)
For medical expenditure	6 (22.22)	4 (23.53)	25 (45.45)	30 (12.5)	54 (16.36)	4 (6.56)
For the purchase of house	2 (7.41)	-	-	6 (2.5)	-	4 (6.56)

Source: Field survey, 2014.

Figures in parenthesis indicate percentage to total

For Todas and Kotas, the major reason for debt was to meet educational expenditure while for Kurumbas the main reason for debt was to meet medical expenditure.

4.5. Analysis of nutrition status as a component of quality of life

4.5.1. Type of food intake

Since the health status is influenced by food intake, the current study tried to find out the food intake by selected households.

Table 30 represents the type of food intake by the selected tribal households

Table 30**Type of food intake by the selected tribal households**

Source	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Good (Rice+ Pulses + GLV + Milk + Fruits+ Egg+ Meat)	23 (48.94)	34 (39.54)	40 (28.57)	-	-	9 (14.76)
Moderate (Rice+ Pulses+ GLV + Milk + Fruits)	20 (42.55)	30 (34.88)	81 (57.86)	65 (27.08)	43 (12.13)	13 (22.95)
Poor (Rice+ Onion+ GLV)	4 (8.51)	22 (25.58)	19 (13.57)	175 (72.92)	290 (87.87)	38 (62.29)

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Among Todas, majority of them (48.94 percent) had good food intake consisting of rice, pulses, green leaf vegetables, milk, fruits, egg and meat. Among Kotas, 39.53 percent had good food intake while 25.58 percent had poor food intake consisting of rice, onion and green leaf vegetables. However majority of Kurumbas (57.86 percent) had moderate food intake consisting of rice, pluses and green leafy vegetables. Among Kattunayakans 62.29 percent had poor food intake consisting of rice, onion and green leafy vegetables. Among Irulas 27.08 percent had moderate food intake consisting of rice, pluses and green leafy vegetables while 72.91 percent had poor food intake consisting of rice, onion and green leafy vegetables. However, only 12.12 percent of Paniyans had moderate food intake consisting of rice, pluses and green leafy vegetables. In this context, the current study is in conformity with the view of Beck and Mishra (2010) that majority of tribal households have poor food intake.

4.6. Analysis of health status as a component of quality of life

Health of the people is the natural wealth of the nation and the axiom 'health is wealth' is relevant in all ages.

4.6.1. Details about the prevalence of disease

Table 31 represents the prevalence of disease among selected tribal households

Table 31

Prevalence of disease among selected tribal households

Tribes	Persons	Cold	Fever	Skin disease	Asthma	Cancer	Cholera	Malaria	Tuberculosis	Jau ndice	Measles
Todas	Males	7 (9.72)	-	-	-	2 (2.78)	-	-	3 (4.7)	-	-
	Females	-	8 (7.07)	-	4 (3.54)	-	-	2 (1.77)	-	18 (7.41)	-
Kotas	Males	-	5 (3.52)	-	-	-	-	7 (4.92)	6 (4.23)	-	6 (4.23)
	Females	3 (1.73)	10 (5.78)	-	7 (4.04)	-	4 (2.31)	-	-	-	-
Kurumbas	Males	-	18 (7.41)	-	14 (5.76)	-	18 (7.41)	-	-	12 (3.65)	-
	Females	17 (5.11)	-	12 (3.62)	-	-	16 (6.58)	12 (3.62)	-	8 (2.46)	4 (3.57)
Irulas	Males	20 (6.17)	15 (4.62)	-	-	15 (4.62)	10 (3.08)	-	-	-	-
	Females	-	12 (2.58)	-	16 (3.44)	2 (0.43)	-	-	-	-	-
Paniyans	Males	25 (3.63)	32 (4.65)	20 (2.90)	-	24 (3.48)	-	-	60 (8.72)	-	32 (4.65)
	Females	23 (4.50)	15 (2.94)	-	-	-	22 (4.31)	10 (1.96)	20 (3.92)	-	22 (4.31)
Kattunayakans	Males	5 (4.46)	20 (17.85)	-	8 (7.14)	-	4 (3.57)	-	6 (5.35)	-	14 (6.83)
	Females	-	14 (6.83)	-	8 (3.90)	5 (2.43)	-	7 (3.41)	-	-	-

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

The incidence of cancer was found among Paniyans males, Irulas females and Kattunayakans females. The fungal infection was found among male and female Paniyans. The prevalence of malaria was found to be higher among Kurumbas. Of the Kurumbas males, 7.41 percent were affected by cholera and 6.58 percent by malaria. In this context, the current study is in conformity with the view of Satwanti Kapoor and Renu Tyagi (2010) that Kurumbas tribals were largely affected by malaria.

4.6.2. Type of treatment

Table 32 represents the type of treatment taken by the selected tribal groups

Table 32

Type of treatment taken by the selected tribal groups

Tribal groups	Treatment at home	Local faith healer	Herbalist	Qualified medical person
Todas	-	17 (33.33)	3 (5.88)	31 (60.78)
Kotas	14 (24.13)	-	8 (13.79)	36 (62.06)
Kurumbas	17 (12.14)	10 (9.34)	25 (23.36)	65 (46.42)
Irulas	94 (58.02)	24 (14.81)	18 (11.11)	28 (17.28)
Paniyans	223 (73.59)	50 (16.50)	25 (8.25)	5 (1.65)
Kattunayakans	20 (21.97)	51 (56.04)	20 (21.97)	-

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Majority of Todas, (60.7 percent) have taken the treatment from qualified medical person while only 33.33 percent of them have taken treatment from local faith healer. In contrast, majority of Kotas (62.06 percent) have taken the treatment from qualified medical person. Majority of Kurumbas (46.42 percent) have taken treatment from qualified medical person. Majority of Irulas (58.02 percent) and Paniyans (73.59 percent) have treatment at home while the majority of Kattunayakans (56.04 percent) have taken the treatment from local faith healer.

4.6.3. Access to health care services

The access to health care services is influenced by the distance to health care centres. Table 33 represents the distance to health care centres for the selected tribal households.

Table 33

Distance to health care centres for the selected tribal households

(in kilometres)

Health care centres	Distance	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Primary health centre	Below 0.5	14	16	36	150	236	42
	0.5-1	9	15	24	55	75	15
	1-1.5	11	-	36	20	9	15
	1.5-2	3	24	8	5	3	9
	Above 2	10	31	36	10	7	5
	Average	1.23	1.41	1.29	1.37	1.49	0.68
Private health centre	Below 0.5	16	19	48	163	236	55
	0.5-1	6	20	16	26	25	20
	1-1.5	14	9	43	35	69	5
	1.5-2	-	8	-	16	-	6
	Above 2	11	30	33	-	-	-
	Average	1.20	1.14	1.22	1.32	1.64	0.45

Source: Field survey, 2014.

The average distance to primary health centre was found to be more for Paniyans (1.49 kilometers) and low for Kattunayakans (0.68 kilometers). Similarly the average distance to private health centre was found to be more for Paniyans (1.64 kilometers) and low for Kattunayakans (0.45 kilometers)

4.6.4. Details about child immunization

Table 34 represents the details about child immunization for the selected tribal households.

Table 34

Details about the child immunization for the selected tribal households

Immunization	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
BCG	16 (18.60)	80 (24.24)	52 (21.66)	20 (3.47)	18 (7.41)	15 (8.11)
DPT 3 Doses	25 (29.06)	49 (14.84)	36 (15.00)	18 (3.13)	19 (7.82)	6 (3.24)
Polio 3 doses	32 (37.21)	125 (37.87)	46 (19.16)	25 (4.34)	20 (8.23)	8 (4.32)
All the three	22 (28.03)	45 (14.01)	25 (12.06)	17 (3.01)	23 (8.76)	14 (7.89)

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Of total Todas children, (18.60 percent) had been given BCG, 29.06 percent had been given DPT 3 doses and 37.21 percent had been given 3 doses of polio. However majority of Kotas children (37.87 percent) and Kurumbas children (19.16 percent) were given 3 doses of polio. In this context, the current study is against the view of Lakhwinder Singh and Gupta (2003) that all the tribal children had been given polio immunization

4.6.5 Details about infant and child death

Table 35 represents the details about infant and child death in the selected tribal households

Table 35**Details about infant and child death in the selected tribal households**

Tribal groups	Number of infant death		Number of child death
Todas	Boys	3	1
	Girls	4	3
Kotas	Boys	5	3
	Girls	4	8
Kurumbas	Boys	7	7
	Girls	9	10
Irulas	Boys	3	4
	Girls	9	7
Paniyans	Boys	10	15
	Girls	7	22
Kattunayakans	Boys	4	4
	Girls	5	5

Source: Field survey, 2014.

The infant death for boys was found to be higher among Paniyans. In all the tribal groups except Kotas and Paniyans infant death for girls was higher than that of boys. In this context, the current study is in conformity with the view of Balgir (2006) that majority of tribal households have high infant death of girls. The child death was found to be higher for Paniyans and in all the tribal groups girl child death was higher.

4.6.6. Source of drinking water:

Table 36 represents the source of drinking water for the selected tribal households

Table 36**Source of drinking water for the selected tribal households**

Source of drinking water	Todas	Kotas	Kurumbas	Irulas	Paniyan	Kattunayakan
Common well	26 (55.31)	50 (58.13)	70 (50.00)	-	-	-
Own bore well	7 (14.89)	6 (6.98)	20 (14.29)	40 (16.66)	-	-
Own tube well	14 (29.78)	30 (34.88)	50 (35.71)	20 (8.33)	-	-
Public tap	-	-	-	180 (75.00)	334 (100)	62 (100)

Source: Field survey, 2014.

Figures in parenthesis indicate percentage to total

Table 36 reveals that majority of Todas, Kotas and Kurumbas households had own well as a source of drinking water. However Irulas, Paniyans and Kattunayakans households had only public tap.

4.6.7. Water treatment

Table 37 represents the type of water treatment by the selected tribal households

Table 37**Type of water treatment by the selected tribal households**

Source	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Boiled	25 (53.19)	40 (46.52)	35 (25.00)	150 (62.50)	175 (53.03)	13 (20.96)
Add medicinal herbs	15 (31.91)	26 (30.23)	68 (48.57)	70 (29.16)	95 (28.78)	45 (73.77)
Untreated	7 (14.89)	20 (23.26)	37 (26.43)	20 (8.33)	64 (19.16)	4 (6.56)

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Table 37 reveals that 53.19 percent of Todas households had used boiled water, 31.91 percent have added medicinal herbs and only 14.89 percent have used untreated water. Among Kotas, 46.52 percent had used boiled water and 23.26 percent had used untreated water. However, only 25 percent of Kurumbas households, 62.50 percent of Irulas households and 53.03 percent of Paniyans households had used boiled water. Among Kattunayakans, 19.67 percent of the households had used boiled water and 73.77 percent have added medicinal herbs.

4.6.8. Sanitation facilities

Table 38 represents the available sanitation facilities for selected tribal households

Table 38

Available sanitation facilities for selected tribal households

Sanitation facilities	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
No sanitation facilities	-	-	-	-	265 (80.30)	26 (42.62)
Pit	-	-	-	40 (16.66)	30 (9.09)	-
Public toilet	-	13 (15.12)	55 (39.29)	140 (58.33)	25 (7.57)	-
Own toilet	47 (100)	73 (84.88)	85 (60.71)	60 (25.00)	14 (4.19)	36 (58.06)

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Table 38 reveals that all the selected Todas households had own toilet facilities while only 84.88 percent of Kotas, 60.71 percent of Kurumbas and 57.38 percent of Kattunayakan households had own toilet facilities. However majority of Paniyans households (80.30 percent) had no toilet facilities.

4.6.8. Source of fuel

The selected households use different types of fuel -cow dung, fire wood, kerosene, gas and electricity.

Table 39 represents the source of fuel for the selected tribal households

Table 39**Source of fuel for the selected tribal households**

Source	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Coal	-	-	4 (2.85)	30 (12.5)	40 (11.97)	-
Fire wood	-	20 (23.26)	24 (17.14)	150 (62.5)	255 (76.34)	44 (72.13)
Kerosene	-	-	-	60 (25.00)	39 (11.67)	12 (19.35)
Gas	-	8 (9.31)	-	-	-	6 (9.84)
Gas and Kerosene	-	40 (46.51)	33 (23.57)	-	-	-
Gas and electricity	47 (100)	18 (20.93)	79 (56.43)	-	-	-

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage values

Table 39 reveals that all the selected Todas households have used gas and electricity as fuel. Similarly majority of Kurumbas households (56.43 percent) have used gas and electricity. However for majority of Kotas (46.51 percent) the major form of fuel was gas and kerosene. For majority of Kattunayakans (72.13 percent), Irulas (75.00 percent) and Paniyans (89.39 percent) the major form of fuel was only fire wood.

4.7. Analysis of living conditions as a component of quality of life

4.7.1. House:

The development of housing occupies high priority in India where housing amenities are far below the minimum standards that have been internationally accepted.

Table 40 represents the type of house for the selected tribal households

Table 40

Type of house for the selected tribal households

Type of house	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Pucca	24 (51.06)	25 (29.06)	77 (55.00)	-	-	12 (18.03)
Semi Pucca	23 (48.94)	61 (70.94)	63 (45.00)	40 (16.67)	34 (9.90)	15 (24.59)
Kacha	-	-	-	200 (83.33)	300 (90.90)	35 (57.38)

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Table 40 reveals that majority of Todas households (51.06 percent) were living in pucca house. Similarly majority of Kurumbas (55 percent) have pucca house. However majority of Kotas (70.94 percent) have semi pucca house. Majority of Kattunayakan households (57.38 percent), Irulas households (83.33 percent) and Paniyans households (90.90 percent) were living in kacha house.

4.7.2. Number of rooms

Table 41 provides information on number of rooms in the selected tribal households.

Table 41

Number of rooms in the selected tribal households

Number of rooms	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
1 room	-	-	-	150 (62.50)	275 (83.33)	35 (57.37)
2 rooms	-	-	-	75 (31.25)	25 (7.57)	15 (24.59)
3 rooms	13 (27.65)	25 (53.19)	27 (19.28)	25 (10.41)	34 (9.90)	3 (3.27)
4 rooms	20 (42.55)	41 (47.67)	63 (45.00)	40 (16.66)	-	3 (4.92)
5 rooms	14 (29.78)	20 (23.25)	50 (35.71)	-	-	6 (9.83)

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Table 41 reveals that majority of Todas households (42.55 percent) and Kurumbas households (45.00 percent) have 4 rooms. Majority of Irulas households (62.50 percent) Paniyan households (83.33 percent) and Kattunayakan households (57.37 percent) have only one room in their house.

4.7.3. Living area

Table 42 gives information on living area in the selected tribal households

Table 42**Living area in the selected tribal households (in square feet)**

Living area	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Below 100	-	-	-	150 (62.50)	250 (75.75)	35 (57.37)
100-200	-	-	-	75 (31.25)	51 (15.15)	16 (24.59)
200-300	-	25 (29.06)	27 (19.28)	20 (8.33)	33 (9.90)	5 (8.19)
300-400	16 (34.04)	10 (11.62)	50 (35.71)	40 (16.66)	-	6 (9.83)
400-500	17 (36.17)	31 (36.04)	13 (9.28)	5 (2.08)	-	-
500-600	14 (29.78)	20 (23.25)	50 (35.71)	-	-	-

Source: Field survey, 2014.

Note: Figures in parentheses indicate percentage to total

Table 42 reveals that majority of Todas households (36.17 percent) and Kotas households (36.04 percent) have 400-500 square feet as living area. However, majority of Kurumbas households (35.71 percent) have only 300-400 square feet as living area. For the majority of Irulas households (62.50 percent), Paniyans households (75.75 percent) and Kattunayakan households (57.37 percent), the living area was below 100 square feet.

4.8 . Assessment of quality of life of the selected tribal groups:

4.8.1 Parameters used for estimating the quality of life index of the selected tribal households

The current study tried to assess the quality of life of the selected tribal households by using the following parameters.

Social status

1. Educational status

Economic status

2. Occupational status
3. Monthly per capita income (in rupees)
4. Annual food expenditure as a percent of monthly income
5. Annual clothing expenditure per person
6. Assets possessed (in rupees)
7. Vehicles possessed

Nutrition status

8. Food intake

Health status

9. Prevalence of disease
10. Source of water
11. Sanitation facilities
12. Fuel availability

Housing

13. Type of house
14. Number of rooms per person
15. Living area per person (in square feet)

4.8.2. Descriptive statistics of parameters used in estimating the quality of life index of the selected tribal households

Table 43 represents the descriptive statistics of parameters used in estimating the quality of life index of the selected tribal households

Table 43

Descriptive statistics of parameters used in estimating the quality of life index of the selected tribal households

s. no	Source	Todas		Kotas		Kurumbas		Irulas		Paniyans		Kattunayakans	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	mean	SD
1	Educational status	2.36	7.21	1.41	2.39	1.69	3.45	1.45	2.46	1.28	2.01	1.26	1.78
2	Occupational status	6.38	42.74	5.03	37.73	4.31	28.27	2.64	10.93	3.81	19.67	4.37	24.90
3	Monthly per capita income	7.97	64.70	6.32	26.82	5.07	26.81	2.46	6.31	1.11	1.33	3.44	14.22
4	Annual food expenditure	9.27	6.53	7.89	42.13	4.57	16.89	8.30	86.85	8.63	93.39	4.02	57.83
5	Annual clothing expenditure per person	7.78	61.36	5.56	33.19	5.83	34.80	2.5	6.5	1.56	2.69	2.83	9.59
6	Assets possessed	7.72	60.82	3.86	16.02	5.02	26.77	1.61	2.83	1.08	1.26	2.21	5.75
7	Vehicles possessed	6.63	48.12	1.51	2.79	1.88	5.68	1.09	1.42	1.06	1.22	1.42	2.90

Conti.....

s. no	Source	Todas		Kotas		Kurumbas		Irulas		Paniyans		Kattunayakan	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
8	Food intake	7.76	62.02	4.79	25.51	3.52	15.05	1.95	4.56	1.56	2.69	2.88	10.26
9	Prevalence of disease	3.97	68.65	6.40	84.01	4.47	22.7	6.03	45.30	6.01	44.63	6.43	44.60
10	Source of water	3.10	10.25	2.41	6.11	2.41	6.03	1.75	3.17	1.60	2.81	2.00	4.00
11	Sanitation facilities	8.57	73.76	3.05	10.29	3.52	12.7	1.92	4.34	1.88	4.19	1.95	4.40
12	Fuel availability	7.42	56.06	5.45	31.52	4.59	23.86	1.55	2.66	1.54	2.62	3.06	10.50
13	Type of house	6.38	42.17	4.02	17.30	4.62	21.65	1.57	2.72	1.55	2.65	2.42	6.65
14	Number of rooms per person	6.78	48.14	4.77	25.94	5.14	27.12	2.49	6.47	2.50	6.94	3.29	11.72
15	Living area per person	6.06	38.31	6.36	42.17	5.91	35.81	1.55	2.65	1.53	2.59	3.16	11.00

SD = Standard deviation

Source: Calculated values based on field survey

The mean score of educational status was found to be the highest for Todas (2.36) and Kattunayakans had the lowest mean score (1.26). This might be due to the fact that the primary enrolment and secondary enrolment was higher for Todas. However majority of Kattunayakans were illiterate and still they hesitate to send the children to schools. There exists more variation in the educational status among Todas since the calculated standard deviation was found to be higher for Todas as compared to other tribal groups.

The mean score of occupational status was found to be the highest among Todas (6.38) and Irulas had the lowest mean score (2.64). This might be due to the fact that number of Todas involved in business and employed in organised sector was higher. However majority of Irulas were only agricultural labourers. There exists more variation in the occupational status of Todas since the standard deviation was found to be higher for Todas as compared to other tribal groups.

The mean score of monthly per capita income was found to be the highest among Todas (7.97) and Paniyans had the lowest mean score (1.11). This might be due to the fact that majority of Todas were having monthly income of more than Rs.10, 000. However majority of Paniyans had average income of below Rs.4000. There exists more variation in the per capita income of Todas since the standard deviation was found to be higher for Todas as compared to other tribal groups.

The mean score of annual food expenditure as a percent of annual income was found to be the highest among Todas (9.27) and Kattunayakans had the lowest mean score (4.02). There exists more variation in the food expenditure among Paniyans since the standard deviation was found to be higher for Paniyans as compared to other tribal groups.

The mean score of annual clothing expenditure per person was found to be the highest among Todas (7.78) and Panniyans had the lowest mean score (1.56). This might to be due to high income of Todas. There exists more variation in the clothing expenditure among Todas since the standard deviation was found to be higher for Todas as compared to other tribal groups.

The mean score of assets possessed was found to be the highest among Todas (7.72) and Paniyans had the lowest mean score (1.08). This might be due to the fact that Todas possessed various forms of assets. There exists more variation in the assets possessed among Todas since the standard deviation was found to be higher for Todas as compared to other tribal groups.

The mean score of vehicles possessed was found to be the highest among Todas (6.63) and Irulas had the lowest mean score (1.06). This might be due to the fact that Todas possessed car and Jeep. However majority of Paniyans had no vehicle. There exists more variation in the vehicles owned by Todas since the standard deviation was found to be higher for Todas as compared to other tribal groups.

The mean score of food intake was found to be the highest among Todas (7.76) and Paniyans had the lowest mean score (1.56). This might be attributed to the fact that the consumption of rice with pulses, green- leaf vegetables, eggs fruits and meat was higher among Todas. However majority of Paniyans had only rice with onion. There exists more variation in the food intake among Todas since the standard deviation was found to be higher for Todas as compared to other tribal groups.

The mean score of prevalence of disease was found to be the highest among Kattunayakans (6.43) and Todas had lowest mean score (3.07). This might be due to the higher incidence of cancer and jaundice among Kattunayakans. However majority of Todas had only cold and fever. There exists more variation in the prevalence of disease among Kattunayakans since the standard deviation was found to be higher for Kattunayakans as compared to other tribal groups.

The mean score of source of drinking water was found to be the highest among Todas (3.10) and Irulas had the lowest mean score (1.75). This might be due to the fact that Todas households had taps in kitchen and bath rooms while majority of Irulas had only common well. There exists more variation in the source of water among Todas since the standard deviation was found to be higher for Todas as compared to other tribal groups.

The mean score of sanitation facilities was found to be the highest among Todas (8.57) and Paniyans had lowest mean score (1.88). There exists more variation in sanitation facilities among Todas since the standard deviation was found to be higher for Todas as compared to other tribal groups.

The mean score of fuel availability was found to be the highest among Todas (7.42) and Paniyans had lowest mean score (1.54). This might be due to the fact that the use of Kerosene, LPG and electricity was the highest among Todas. However majority of Paniyans had used only wood and coal. There exists more variation in the fuel availability among Todas since the standard deviation was found to be higher for Todas as compared to other tribal groups.

The mean score of type of house was found to be the highest among Todas (6.38) and Paniyans had the lowest mean score (1.15). This might be due to the fact that

Todas houses are made up of tiles, bricks and marble. However majority of Paniyans house had only leaf and mud. There exists more variation in the type of house among Todas since the standard deviation was found to be higher for Todas as compared to other tribal groups.

The mean score of number of rooms per person was found to be the highest among Todas (6.78) and Irulas had the lowest mean score (2.49). There exists more variation in the number of rooms per person among Todas since the standard deviation was found to be higher for Todas as compared to other tribal groups.

The mean score of living area was found to be the highest among Kotas (6.36) and Paniyans had lowest mean score (1.35). There exists more variation in the living area among Kotas since the standard deviation was found to be higher for Kotas as compared to other tribal groups.

4.8.3. Extent of inequality in different parameters of quality of life of selected tribal groups

The study tried to find out the extent of inequality in different parameters of quality of life index of the selected tribal groups by calculating Gini co-efficient ratio

Table 44 represents the estimated Gini co-efficient ratio of selected parameters of quality of life index.

Table 44
Estimated Gini co-efficient ratio of selected parameters of quality of life index

Parameters	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Educational status	0.24	0.16	0.35	0.060	0.050	0.008
Occupational status	0.17	0.14	0.15	0.050	0.020	0.030
Monthly per capita income	0.167	0.04	0.19	0.020	0.002	0.135
Annual food expenditure as percent of annual income	0.07	0.08	0.07	0.007	0.0052	0.041

Annual clothing expenditure per person	0.17	0.21	0.14	0.212	0.021	0.054
Assets possessed	0.37	0.25	0.38	0.160	0.150	0.230
Vehicles possessed	0.21	0.20	0.22	0.010	0.003	0.004
Food intake	0.19	0.14	0.16	0.060	0.002	0.008
Prevalence disease	0.17	0.15	0.16	0.060	0.030	0.040
Source of water	0.24	0.14	0.19	0.030	0.020	0.013
Sanitation facilities	0.16	0.12	0.16	0.010	0.002	0.030
Fuel availability	0.18	0.11	0.13	0.050	0.005	0.004
Type of house	0.48	0.29	0.39	0.130	0.160	0.170
Number of rooms per person	0.35	0.25	0.34	0.001	0.006	0.003
Living area	0.12	0.01	0.40	0.002	0.003	0.001

Source: Calculated values based on field survey

Table 44 implies that there have been more inequality in the parameter of education among Kurumbas since the estimated Gini co-efficient ratio was the highest for Kurumbas. The occupational status among Todas had more inequality since the estimated Gini co-efficient ratio was the highest for Todas. There exist more inequality in the parameter of per capita income among Kurumbas since the estimated Gini co-efficient ratio was the highest for Kurumbas. The parameter of food expenditure among Kotas depicted more inequality since the estimated Gini co-efficient ratio was the highest for Kotas. The parameter of clothing expenditure had more inequality among Kotas since the estimated Gini co-efficient ratio was the highest for Kotas. The parameter of assets possessed had more inequality among Kurumbas since the estimated Gini co-efficient ratio was the highest for Kurumbas. The parameter of vehicles possessed had more inequality among Kurumbas since the estimated Gini co-efficient ratio was the highest for Kurumbas. The parameter of food intake had lowest inequality among Paniyans since the estimated Gini co-efficient ratio was the lowest for Paniyans.

Prevalence of disease had low inequality among Paniyans since the estimated Gini co-efficient ratio was the lowest for Paniyans. The parameter of source of water had lowest inequality among Kattunayakans since the estimated Gini co-efficient ratio was the lowest for Kattunayakans. The parameter of sanitation facilities had lowest inequality among Paniyans since the estimated Gini co-efficient ratio was the lowest for Paniyans. However the estimated Gini co-efficient ratio was the lowest for Kattunayakans with regard to the parameter of fuel availability. The parameter of type of house had lowest inequality among Irulas as indicated by the lowest Gini co-efficient ratio. The parameter of number of rooms per person had lowest inequality among Irulas since the estimated Gini co-efficient ratio was the lowest for Irulas. The parameter of living area had lowest inequality among Kattunayakans since the estimated Gini co-efficient ratio was the lowest for Kattunayakans.

4.8.4. Classification of the selected tribal households based on the score of the parameters of quality of life index and estimated quality of life index

Table 45 represents the classification of the selected tribal households based on the score of the parameters of quality of life index and estimated quality of life index

Table 45

Classification of the selected tribal households based on the score of the parameters of quality of life index and estimated quality of life index

Parameters	Type	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Education	Poor	-	-	12(8.57)	182(75.83)	300(90.09)	38(61.29)
	Average	-	17(19.76)	33(23.57)	58(24.16)	34(9.90)	24(38.70)
	Fair	19 (40.42)	20(23.25)	28(20.00)	-	-	-
	Good	28 (59.57)	49(56.97)	67(47.85)	-	-	-
Occupational status	Poor	-	-	23(16.42)	178(74.16)	325(97.59)	34(54.83)
	Average	15(31.91)	18(20.93)	29(20.71)	62(25.83)	9(2.40)	28(45.16)
	Fair	12(25.53)	29(33.72)	56(40.00)	-	-	-
	Good	20(42.55)	39(45.34)	32(22.85)	-	-	-
Annual Food expenditure as a percent of annual income (in rupees)	Poor	-	-	38(27.14)	195(81.25)	316(94.89)	39(62.90)
	Average	10(21.27)	19(22.09)	49(35.00)	45(18.75)	18(5.10)	23(37.09)
	Fair	19(40.42)	27(31.39)	53(37.85)	-	-	-
	Good	18(38.29)	40(46.51)	-	-	-	-
Annual clothing expenditure per person (in rupees)	Poor	-	-	38(27.14)	210(87.5)	329(98.79)	42(67.74)
	Average	-	15(17.44)	55(39.28)	30(12.50)	5(1.20)	20(32.25)
	Fair	22(46.80)	23(26.74)	47(33.57)	-	-	-
	Good	25(53.19)	48(55.81)	-	-	-	-
Assets possessed	Poor	-	-	86(61.42)	230(95.83)	334 (100)	62(100)
	Average	12(25.353)	21(24.41)	23(16.42)	10(4.16)	-	-
	Fair	15(31.91)	29(33.72)	31(22.14)	-	-	-
	Good	20(42.55)	36(41.86)	-	-	-	-
Vehicles possessed	Poor	-	-	72(51.42)	235(97.91)	334 (100)	62(100)
	Average	15(31.91)	28(32.55)	42(30.00)	5(2.08)	-	-
	Fair	8(17.02)	15(17.44)	26(18.57)	-	-	-
	Good	24(51.06)	43(50.00)	-	-	-	-

Cont ...

Parameters	Type	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Food intake	Poor	-	-	45(32.14)	228(95.00)	310(93.09)	45(72.58)
	Average	-	24(27.90)	66(47.14)	12(5.00)	24(6.90)	17(27.42)
	Fair	10(21.27)	20(23.25)	29(20.71)	-	-	-
	Good	37(78.72)	42(48.83)	-	-	-	-
Prevalence disease	Poor	-	-	48(34.28)	225(93.75)	316(94.59)	45(72.58)
	Average	-	23(26.74)	63(45.00)	15(6.25)	18(5.40)	17(27.41)
	Fair	14(29.78)	18(20.93)	29(20.71)	-	-	-
	Good	33(70.21)	45(52.32)	-	-	-	-
Source of water	Poor	-	-	53(37.85)	240(100)	296(89.48)	55(88.70)
	Average	-	15(17.44)	61(43.57)	-	35(10.51)	7(11.29)
	Fair	7(14.89)	21(24.42)	26(18.57)	-	-	-
	Good	40(85.10)	50(58.14)	-	-	-	-
Sanitation facilities	Poor	-	-	82(58.57)	240 (100)	334(100)	50(80.64)
	Average	-	18(20.93)	58(41.42)	-	-	12(19.35)
	Fair	5(10.63)	23(26.74)	-	-	-	-
	Good	42(89.36)	45(52.32)	-	-	-	-
Fuel availability	Poor	-	-	95(67.85)	220(91.66)	309(92.79)	52(83.87)
	Average	-	28(32.55)	35(25.00)	20(8.33)	25(7.20)	10(16.13)
	Fair	8(17.02)	15(17.44)	10(7.14)	-	-	-
	Good	39(82.97)	43(50.00)	-	-	-	-

Cont ...

Parameters	Type	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Type of house	Poor	-	-	58(41.42)	233(97.08)	334 (100)	52(83.87)
	Average	-	15(17.44)	47(33.57)	7(2.92)	-	10(16.13)
	Fair	14(29.78)	22(25.58)	35(25.00)	-	-	-
	Good	33(70.21)	49(56.97)	-	-	-	-
Number of rooms per person	Poor	-	-	68(48.57)	230(95.83)	327(98.19)	56(90.32)
	Average	-	22(25.58)	52(37.14)	10(4.16)	7(1.80)	6(9.67)
	Fair	17(36.17)	27(31.39)	20(14.28)	-	-	-
	Good	30(63.82)	37(43.02)	-	-	-	-
Living area (in square feet)	Poor	-	-	59(42.14)	235(97.92)	326(97.59)	58(93.54)
	Average	11(23.40)	24(27.90)	42(30.00)	5(2.08)	8(2.40)	4(6.45)
	Fair	13(27.65)	29(33.72)	30(21.42)	-	-	-
	Good	23(48.93)	33(38.37)	9(6.42)	-	-	-
Estimated quality of life index	Poor	-	24(27.91)	23(16.43)	140(58.33)	250(75.07)	36(59.02)
	Average	6(12.76)	14(16.28)	28(20.00)	75(31.25)	84(24.92)	20(32.79)
	Fair	13(27.66)	25(29.07)	65(46.43)	25(10.42)	-	6(8.19)
	Good	28(59.58)	23(26.74)	24(17.14)	-	-	-

Source: Calculated values based on field survey

Note: Figures in parentheses indicate percentage to total

It terms of education, 59.57 percent of Todas households were good while the corresponding indicator for Kotas was 56.97 percent. In contrast, 75.83 percent of Irulas, 90.10 percent of Paniyans and 61.29 percent of Kattunayakans were poor in terms of the indicator of education.

The occupational status of majority of Todas (42.55 percent) and Kotas (45.34 percent) were good while, 74.16 percent of Irulas, 97.59 percent of Paniyans and 54.83 percent of Kattunayakans had only poor occupational status.

In terms of annual food expenditure as a percent of family income, majority of Todas (40.42 percent) had fair status and majority of Kotas (46.51 percent) had good status. In contrast, majority of Irulas (81.25 percent), Paniyans (94.89 percent) and Kattunayakans (62.90 percent) were poor in terms of the indicator of annual food expenditure.

In relation to the parameter of annual clothing expenditure per person, majority of Todas (53.19 percent) and Kotas (55.81 percent) were good. However 87.50 percent of Irulas, 98.79 percent of Paniyans and 67.74 percent of Kattunayakans were poor.

With regard to assets possessed, majority of Todas households (42.55 percent) and Kotas (41.86 percent) were good. Comparatively all the households of Paniyans and Kattunayakans were poor. In terms of vehicles possessed majority of Todas (51.06 percent) and Kotas (50.00 percent) were good. In terms of food intake, majority of Todas (78.72 percent) and Kotas (48.83 percent) were good. However 95 percent of Irulas households, 93.09 percent of Paniyans households and 72.58 percent of Kattunayakans households were poor.

While 70.21 percent of Todas households and 52.32 percent of Kotas households had good health status, 93.75 percent of Irulas, 94.59 percent of Paniyans and 72.58 percent of Kattunayakans households had poor health status.

Table 45 also indicates that for majority of Todas (85.10 percent) and Kotas (58.14 percent) the source of water is good. However majority of Paniyans (89.48 percent) and Kattunayakans (88.70 percent) had poor source of water. With regard to sanitation facilities, majority of Todas (89.36 percent) and Kotas (52.32 percent) fall in good category while all the Irulas, Paniyans households fall in poor category.

With regard to fuel availability majority of Todas (82.87 percent) and Kotas (50.00 percent) were in good category while majority of Kurumbas (61.85 percent) Irulas (91.66 percent), Paniyans (92.79 percent) and Kattunayakans (83.87 percent) were in poor category.

With regard to type of house, 70.21 percent of Todas households and 56.97 percent of Kotas were having good house. However 97.08 percent of Irulas households, 100 percent of Paniyans households and 83.87 percent of Kattunayakans households fall in poor category of housing. Similarly in terms of number of rooms per person, majority of Todas (63.82 percent) and Kotas (43.02 percent) come under good category. In contrast, more than 90 percent of Irulas, Paniyans and Kattunayakans were poor in this indicator. In terms of living area, majority of Todas (48.93 percent) and Kotas (38.37 percent) fall in the good category while majority of Irulas, Paniyans and Kattunayakans were in poor category.

Majority of Todas (59.50 percent) had good quality of life index while majority of Kotas (29.07 percent) had fair quality of life index. Similarly majority of Kurumbas (46.43 percent) had fair quality of life index. In contrast, majority of Irulas (58.33 percent), Paniyans (75.07 percent) and Kattunayakans (59.02 percent) had poor quality of life index.

On an average, the quality of life index for Todas was higher 104.61 as compared to that of Kotas (67.90), Kurumbas (62.05), Irulas (28.35), Paniyans (25.65) and Kattunayakans (26.57).

Figure 4 represents the percentage distribution of the selected tribal households based on the estimated quality of life index.

Figure 4
Percentage distribution of the selected tribal households based on
the estimated quality of life index.

Figure 4(A)

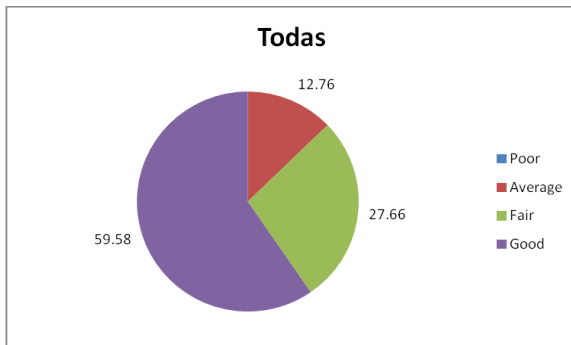


Figure 4(D)

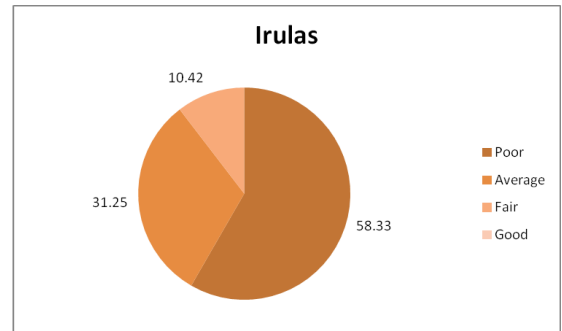


Figure 4(B)

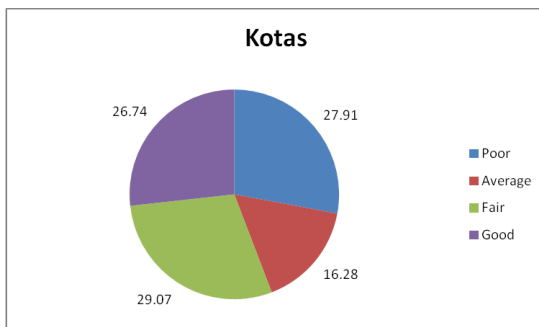


Figure 4(E)

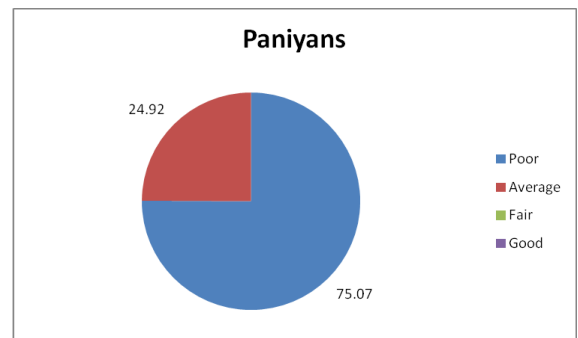


Figure 4(C)

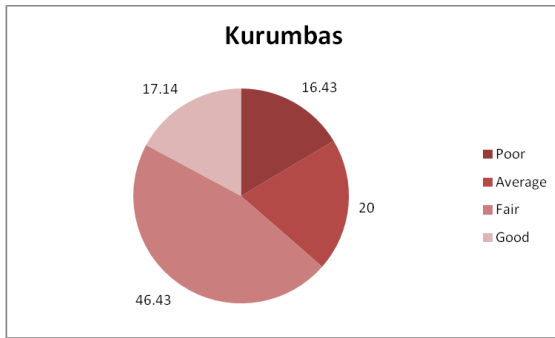
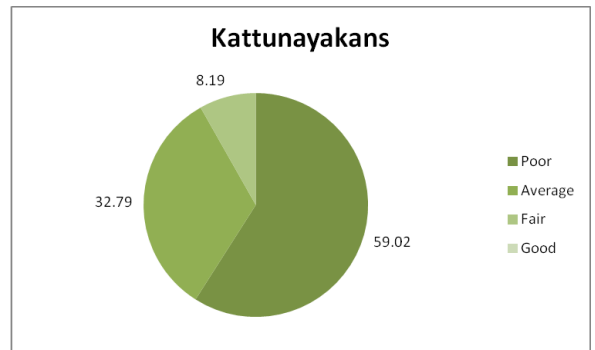


Figure 4(F)



The current study tried to find out whether there is significant difference in average quality of life of different tribal groups by applying one way analysis of variance. The study noted that there was significant difference in quality of life index of different tribal groups- Todas, Kotas, Kurumbas, Irulas, Paniyans and Kattunayakans since the calculated F value- 19.50 was higher than table F value (3.02).

4.8.5. Estimated Sophers disparity index in quality of life of selected tribal groups

The study tried to estimate Sophers disparity index to find out the level of disparity in quality of life index of selected tribal groups.

Table 46

Estimated Sophers disparity index in quality of life index of selected tribal groups

Groups	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Todas	-	0.20	0.25	0.45	0.54	0.36
Kotas	0.20	-	0.04	0.24	0.34	0.16
Kurumbas	0.25	0.04	-	0.20	0.30	0.12
Irulas	0.36	0.16	0.12	0.08	0.18	-
Panniyans	0.45	0.24	0.20	-	0.10	0.08
Kattunayakan	0.54	0.34	0.30	0.10	-	0.18

Source: Calculated values based on field survey

A comparison of quality of life index of Todas compared to other groups revealed that disparity was found more with regard to Paniyans (.54) and less with regard to Kotas (.20). When the quality of life index of Kotas was compared with other tribal groups there was more disparity with regard to Paniyans as indicated by the Sophers disparity index of 0.34. Similarly a comparison of quality of life index of Kurumbas with other groups indicated that there was more disparity in the quality of life index of Paniyans since the estimated Sophers disparity index was the highest (0.30). A comparison of quality of life index of Irulas, Paniyans and Kattunayakans revealed that their quality of life index had more disparity with the quality of life index of Todas as indicated by the estimated Sophers disparity index.

4.9. Identification of factors determining quality of life of tribals

By applying factor analysis the study tried to find out the important factors influencing quality of life of the selected tribal households.

4.9.1. Factors influencing the quality of life of Todas

Table 47 represents the estimated communalities of different parameters of quality of life of Todas.

Table 47**Estimated communalities of different parameters of quality of life of Todas**

Factors	Component	Communalities
Social factor	Educational status	.797
Economic factors	Occupational status	.848
	Monthly per capita income	.753
	Annual food expenditure as percent of annual income	.798
	Annual clothing expenditure per person	.673
	Assets possessed	.808
	Vehicles possessed	.641
Nutrition factor	Food intake	.517
Health related factors	Prevalence of disease	.868
	Source of water	.823
	Sanitation facilities	.811
	Fuel availability	.623
Living condition	Type of house	.707
	Number of rooms per person	.682
	Living area	.773

Source: Calculated values based on field survey

Note: Extraction Method: Principal Component Analysis

The calculated KMO and Bartlett's test of Sphericity of the selected factors for Todas was .724 with the chi-square of .265 at the significant level of 0.01. The calculated KMO and Bartlett's test was greater than the threshold level of 0.5. It implies that the selected factors were appropriate for the factor analysis.

Table 48 represents the significant factors extracted for Todas households

Table 48

Factors extracted for Todas households

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Educational status	2.941	18.37	18.37	2.941	18.37	18.37	2.359	14.74	14.74
Occupational status	2.051	12.81	31.19	2.051	12.81	31.19	1.893	11.83	26.57
Monthly per capita income	1.775	11.09	42.29	1.775	11.09	42.29	1.640	10.24	36.82
Annual food expenditure as percent of annual income	1.698	10.61	52.90	1.698	10.61	52.90	1.614	10.08	46.91
Annual clothing expenditure per person	1.343	8.39	61.29	1.343	8.39	61.29	1.572	9.82	56.73
Assets possessed	1.235	7.79	69.01	1.235	7.71	69.01	1.553	9.70	66.44
Vehicles possessed	1.034	6.46	75.48	1.034	6.46	75.48	1.447	9.04	75.48
Food intake	.834	5.21	80.69						
Prevalence of disease	.412	2.57	95.31						
Source of water	.336	2.09	97.41						
Sanitation facilities	.233	1.45	98.86						
Fuel availability	.181	1.13	100.00						
Type of house	.721	4.50	85.20						
Number of rooms per person	.678	4.23	89.43						
Living area	.528	3.29	92.73						

Source: Calculated values based on field survey

Table 48 indicates that out of fifteen parameters considered, the quality of life of Todas was significantly affected by seven parameters namely educational status, occupational status, monthly per capita income, annual food expenditure as percent of annual income, annual clothing expenditure per person, assets possessed and vehicles possessed. These seven parameters as a whole accounted for 75.48 percentage of total variance in quality of life of Todas.

4.9.2. Factors influencing the quality of life of Kotas

Table 49 represents the estimated communalities of different parameters of quality of life of Kotas.

Table 49

Estimated communalities of different parameters of quality of life of Kotas

Factors	Component	Communalities
Social factor	Educational status	.803
Economic factors	Occupational status	.652
	Monthly per capita income	.720
	Annual food expenditure as percent of annual income	.569
	Annual clothing expenditure per person	.667
	Assets possessed	.813
	Vehicles possessed	.730
Nutrition factor	Food intake	.714
Health related factors	Prevalence of disease	.527
	Source of water	.740
	Sanitation facilities	.776
	Fuel availability	.466
Living condition	Type of house	.676
	Number of rooms per person	.485
	Living area	.757

Source: Calculated values based on field survey

Note: Extraction Method: Principal Component Analysis

The calculated KMO and Bartlett's test of Sphericity of the selected factors for Kotas was .664 with the chi-square of .292 at the significance level of 0.05. Since the calculated KMO and Bartlett's test was greater than the threshold level of 0.5 the selected factors were appropriate for the factor analysis.

Table 50 represents the significant factors extracted for Kotas households

Table 50
Factors extracted for Kotas households

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Educational status	3.244	21.62	21.62	3.244	21.62	21.62	2.772	18.47	18.47
Occupational status	1.715	11.43	33.06	1.715	11.43	33.06	1.675	11.16	29.64
Monthly per capita income	1.650	11.00	44.06	1.650	11.00	44.06	1.579	10.52	40.16
Annual food expenditure as percent of annual income	1.228	8.18	52.25	1.228	8.18	52.25	1.429	9.53	49.69
Annual clothing expenditure per person	1.219	8.12	60.38	1.219	8.12	60.38	1.396	9.30	59.00
Assets possessed	1.043	6.95	67.33	1.043	6.95	67.33	1.249	8.32	67.33
Vehicles possessed	.989	6.59	73.92						
Food intake	.815	5.43	79.35						
Prevalence of disease	.454	3.02	93.96						
Source of water	.383	2.55	96.51						
Sanitation facilities	.272	1.81	98.32						
Fuel availability	.251	1.67	100.00						
Type of house	.680	4.53	83.89						
Number of rooms per person	.550	3.66	87.55						
Living area	.507	3.38	90.93						

Source: Calculated values based on field survey

Table 50 indicates that out of fifteen parameters considered, the quality of life of Kotas was significantly affected by six parameters namely educational status, occupational status, monthly per capita income, annual food expenditure as percent of annual income, annual clothing expenditure and assets possessed. These six parameters as a whole accounted for 67.33 percentage of total variance in quality of life of Kotas.

4.9.3. Factors influencing the quality of life of Kurumbas

Table 51 represents the estimated communalities of different parameters of quality of life of Kurumbas.

Table 51
Estimated communalities of different parameters of quality of life of Kurumbas

Factors	Component	Communalities
Social factor	Educational status	.607
Economic factors	Occupational status	.635
	Monthly per capita income	.565
	Annual food expenditure as percent of annual income	.574
	Annual clothing expenditure per person	.737
	Assets possessed	.625
	Vehicles possessed	.621
Nutrition factor	Food intake	.564
Health related factors	Prevalence of disease	.818
	Source of water	.561
	Sanitation facilities	.613
	Fuel availability	.563
Living condition	Type of house	.635
	Number of rooms per person	.644
	Living area	.774

Source: Calculated values based on field survey
Note: Extraction Method: Principal Component Analysis

The calculated KMO and Bartlett's test of Sphericity of the selected factors for Kurumbas was .564 with the chi-square of .292 at the significance level of 0.09. The calculated KMO and Bartlett's test was greater than the threshold level of .5. It implies that the selected factors were appropriate for the factor analysis

Factor extraction

Table 52 represents the significant factors extracted for Kurumbas households

Table 52

Factors extracted for Kurumbas households

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Educational status	2.005	13.36	13.36	2.005	13.36	13.36	1.630	10.86	10.86
Occupational status	1.662	11.07	24.44	1.662	11.07	24.44	1.599	10.66	21.52
Monthly per capita income	1.430	9.53	33.97	1.430	9.53	33.97	1.377	9.17	30.70
Annual food expenditure as percent of annual income	1.310	8.73	42.70	1.310	8.73	42.70	1.330	8.86	39.57
Annual clothing expenditure per person	1.157	7.71	50.41	1.157	7.71	50.41	1.277	8.51	48.08
Assets possessed	1.041	6.94	57.35	1.041	6.94	57.35	1.218	8.12	56.20
Vehicles possessed	1.029	6.85	64.21	1.029	6.85	64.21	1.202	8.01	64.21
Food intake	.923	6.15	70.36						
Prevalence of disease	.621	4.13	90.94						
Source of water	.518	3.45	94.40						
Sanitation facilities	.429	2.86	97.26						
Fuel availability	.411	2.73	100.00						
Type of house	.871	5.80	76.17						
Number of rooms per person	.849	5.65	81.83						
Living area	.746	4.97	86.80						

Source: Calculated values based on field survey

Table 52 indicates that out of 15 parameters considered, the quality of life of Kurumbas was significantly affected by 7 parameters namely educational status, occupational status, per capita income, food expenditure, clothing expenditure, assets possessed and vehicles possessed. These seven parameters as a whole accounted for 64.21 percentage of total variance in quality of life of Kurumbas.

4.9.4. Factors influencing the quality of life of Irulas

Table 53 represents the estimated communalities of different parameters of quality of life of Irulas.

Table 53

Estimated communalities of different parameters of quality of life of Irulas

Factors	Component	Communalities
Social factor	Educational status	.618
Economic factors	Occupational status	.721
	Monthly per capita income	.736
	Annual food expenditure as percent of annual income	.783
	Annual clothing expenditure per person	.634
	Assets possessed	.521
	Vehicles possessed	.626
Nutrition factor	Food intake	.634
Health related factors	Prevalence of disease	.694
	Source of water	.504
	Sanitation facilities	.717
	Fuel availability	.620
Living condition	Type of house	.854
	Number of rooms per person	.732
	Living area	.609

Source: Calculated values based on field survey

Note : Extraction Method: Principal Component Analysis

The calculated KMO and Bartlett's test of Sphericity of the selected factors for Irulas was .520 with the chi-square of .265 at the significance level of 0.06. Since the calculated KMO and Bartlett's test was greater than the threshold level of 0.5 the selected factors were appropriate for the factor analysis

Factor extraction

Table 54 represents the significant factors extracted for Irulas households

Table 54

Factors extracted for Irulas households

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Educational status	3.160	21.06	21.06	3.160	21.06	21.06	2.855	19.03	19.03
Occupational status	1.461	9.74	30.80	1.461	9.74	30.80	1.421	9.47	28.50
Monthly per capita income	1.214	8.09	38.90	1.214	8.09	38.90	1.345	8.96	37.47
Annual food expenditure as percent of annual income	1.176	7.83	46.74	1.176	7.83	46.74	1.207	8.04	45.52
Annual clothing expenditure per person	1.075	7.16	53.90	1.075	7.16	53.90	1.149	7.66	53.18
Assets possessed	1.040	6.93	60.83	1.040	6.93	60.83	1.149	7.65	60.83
Vehicles possessed	.950	6.33	67.17						
Food intake	.889	5.92	73.10						
Prevalence of disease	.488	3.25	91.62						
Source of water	.469	3.12	94.75						
Sanitation facilities	.437	2.91	97.66						
Fuel availability	.350	2.33	100.00						
Type of house	.854	5.69	78.79						
Number of rooms per person	.833	5.55	84.34						
Living area	.604	4.02	88.37						

Source: Calculated values based on field survey

Table 54 indicates that out of 15 parameters considered, the quality of life of Irulas was significantly affected by six parameters namely educational status, occupational status, per capita income, food expenditure, clothing expenditure and assets possessed. These six parameters as a whole accounted for 60.83 percentage of total variance in quality of life of Irulas.

4.9.5. Factors influencing the quality of life of Paniyans

Table 55 represents the estimated communalities of different parameters of quality of life of Paniyans.

Table 55

Estimated communalities of different parameters of quality of life of Paniyans

Factors	Component	Communalities
Social factor	Educational status	.501
Economic factors	Occupational status	.529
	Monthly per capita income	.488
	Annual food expenditure as percent of annual income	.548
	Annual clothing expenditure per person	.791
	Assets possessed	.574
	Vehicles possessed	.637
Nutrition factor	Food intake	.691
Health related factors	Prevalence of disease	.741
	Source of water	.337
	Sanitation facilities	.616
	Fuel availability	.555
Living condition	Type of house	.492
	Number of rooms per person	.615
	Living area	.525

Source: Calculated values based on field survey

Note : Extraction Method: Principal Component Analysis

The calculated KMO and Bartlett's test of Sphercity of the selected factors for Paniyans was .501 with the chi-square of .25 at the significance level of 0.46. Since the calculated KMO and Bartlett's test was greater than the threshold level of .5 the selected factors were appropriate for the factor analysis

Factor extraction

Table 56 represents the significant factors extracted for Paniyans households

Table 56
Factors extracted for Paniyans households

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Educational status	4.838	32.25	32.25	4.838	32.25	32.25	4.317	28.78	28.78
Occupational status	2.368	15.78	48.04	2.368	15.78	48.04	2.013	13.42	42.20
Monthly per capita income	1.425	9.49	57.54	1.425	9.49	57.54	1.981	13.20	55.41
Annual food expenditure as percent of annual income	1.262	8.41	65.95	1.262	8.41	65.95	1.476	9.84	65.25
Annual clothing expenditure per person	1.054	7.02	72.98	1.054	7.02	72.98	1.159	7.72	72.98
Assets possessed	.978	6.51	79.49						
Vehicles possessed	.746	4.97	84.46						
Food intake	.495	3.29	87.76						
Prevalence of disease	.218	1.45	97.17						
Source of water	.197	1.31	98.49						
Sanitation facilities	.135	.89	99.38						
Fuel availability	.092	.61	100.00						
Type of house	.490	3.26	91.03						
Number of rooms per person	.382	2.54	93.58						
Living area	.321	2.14	95.72						

Source: Calculated values based on field survey

Table 56 indicates that out of 15 parameters considered, the quality of life of Paniyans was significantly affected by five parameters namely educational status, occupational status, percapita income, food expenditure and clothing expenditure. These five parameters as a whole accounted for 72.98 percentage of total variance in quality of life of Paniyans.

4.9.6. Factors influencing the quality of life of Kattunayakans

Table 57 represents the estimated communalities of different parameters of quality of life of Kattunayakans.

Table 57
Estimated communalities of different parameters of quality of life of Kattunayakans

Factors	Component	Communalities
Social factor	Educational status	.598
Economic factors	Occupational status	.537
	Monthly per capita income	.654
	Annual food expenditure as percent of annual income	.448
	Annual clothing expenditure per person	.595
	Assets possessed	.507
	Vehicles possessed	.570
Nutrition factor	Food intake	.611
Health related factors	Prevalence of disease	.764
	Source of water	.637
	Sanitation facilities	.744
	Fuel availability	.708
Living condition	Type of house	.599
	Number of rooms per person	.526
	Living area	.428

Source: Calculated values based on field survey

Note : Extraction Method: Principal Component Analysis

The calculated KMO and Bartlett's test of Sphericity of the selected factors for Kattunayakans was .516 with the chi-square of .076 at the significance level of 0.01. Since the calculated KMO and Bartlett's test was greater than the threshold level of 0.5 the selected factors were appropriate for the factor analysis

Factor extraction

Table 58 represents the significant factors extracted for Kattunayakans households

Table 58

Factors extracted for Kattunayakans households

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Educational status	1.948	12.98	12.98	1.948	12.98	12.98	1.928	12.85	12.85
Occupational status	1.847	12.31	25.30	1.847	12.31	25.30	1.633	10.88	23.73
Per capita income	1.505	10.03	35.34	1.505	10.03	35.34	1.592	10.61	34.34
Food expenditure	1.432	9.54	44.88	1.432	9.54	44.88	1.478	9.85	44.20
Clothing expenditure	1.317	8.78	53.67	1.317	8.78	53.67	1.420	9.46	53.67
Assets possessed	.990	6.60	60.27						
Vehicles possessed	.943	6.28	66.56						
Food intake	.922	6.14	72.70						
Prevalence of disease	.527	3.51	92.07						
Source of water	.460	3.06	95.14						
Sanitation facilities	.384	2.56	97.70						
Fuel availability	.345	2.30	100.00						
Type of house	.914	6.09	78.80						
Number of rooms per person	.757	5.04	83.84						
Living area	.707	4.71	88.56						

Source: Calculated values based on field survey

Table 58 indicates that out of 15 parameters considered the quality of life of Kattunayakans was significantly affected by five parameters namely educational status, occupational status, per capita income, food expenditure and clothing expenditure. These five parameters as a whole accounted for 53.67 percentage of total variance in quality of life of Kattunayakans.

4.10. Analysis of the link between quality of life and poverty of tribals

The study tried to find out the link between quality of life and poverty of tribals by calculating multidimensional poverty index.

4.10.1. Multidimensional poverty index

Following Alkire- Foster, Maria Emma Santos and Sabina Alkire (2011), the current study tried to find out the multidimensional poverty index for different tribal households. Multidimensional poverty index (MPI) is a product of the incidence of poverty and intensity of poverty. The incidence of poverty is called the multidimensional headcount ratio (H). Intensity of poverty (A) is the average deprivation score of the multidimensionally poor people.

Table 59 represents the proportion of deprived and non-deprived households in terms of the selected indicators

Table 59
Proportion of deprived and non-deprived households in terms of selected indicators

S. no	Indicators	Todas		Kotas		Kurumbas		Irulas		Paniyans		Kattunayakans	
		Deprived	Non Deprived	Deprived	Non Deprived	Deprived	Non Deprived	Deprived	Non Deprived	Deprived	Non Deprived	Deprived	Non Deprived
1	No one has completed five years of schooling	18 (38.29)	29 (61.70)	29 (33.72)	57 (66.27)	69 (49.28)	71 (50.71)	143 (59.58)	97 (40.42)	265 (79.34)	69 (20.72)	39 (62.90)	23 (37.09)
2	At least one school-age child not enrolled in school	-	47 (100)	-	86 (100)	18 (12.85)	122 (87.14)	126 (52.50)	114 (5.83)	282 (84.43)	52 (15.61)	25 (40.32)	37 (59.67)
3	One or more children have died	4 (8.51)	43 (91.48)	9 (10.46)	77 (89.53)	17 (12.14)	123 (87.85)	11 (4.58)	229 (95.42)	38 (11.37)	297 (88.92)	9 (14.51)	53 (85.48)
4	At least one member is malnourished	7 (14.89)	40 (85.12)	22 (25.58)	64 (74.42)	5(3.57)	135 (96.42)	235 (97.91)	5 (2.03)	322 (96.74)	12 (3.60)	50 (80.64)	12 (19.35)
5	No electricity	-	47 (100)	-	86 (100)	10 (7.14)	130 (92.85)	220 (91.66)	20 (8.33)	274 (82.03)	60 (18.02)	43 (69.35)	19 (30.64)
6	No access to clean drinking water	-	47 (100)	7 (8.14)	79 (91.86)	20 (14.28)	120 (85.71)	235 (97.91)	5 (2.08)	304 (91.01)	30 (9.00)	30 (48.38)	32 (51.61)
7	No access to adequate sanitation	-	47 (100)	3 (3.48)	83 (96.51)	80 (57.14)	60 (42.85)	230 (95.83)	10 (4.16)	319 (95.49)	15 (4.50)	34 (54.83)	28 (45.16)
8	House has dirt floor	-	47 (100)	-	86 (100)	77 (55.00)	63 (45.00)	200 (83.33)	40 (16.66)	299 (89.52)	35 (10.51)	41 (66.13)	21 (33.87)
9	Household uses "dirty" cooking fuel (dung, firewood or charcoal)	-	47 (100)	6 (6.97)	80 (93.02)	61 (43.57)	79 (56.42)	210 (87.50)	30 (12.50)	312 (93.41)	22 (6.61)	42 (67.74)	20 (32.25)
10	Household has no car and owns at most one bicycle, motorcycle, radio, refrigerator, telephone or television	-	47 (100)	12 (13.95)	74 (86.04)	101 (72.14)	39 (27.85)	230 (95.83)	10 (4.16)	309 (92.51)	25 (7.51)	52 (83.87)	10 (16.13)

Source: Calculated values based on field survey

Note: Figures in parentheses indicate percentage to total

Among Todas households, 38.29 percent were deprived in the indicator of completion of five years of schooling. However only 8.5 percent of households were having child death and 14.89 percent of households were malnourished. However in all the indicators of living standard, all the Todas households were non- deprived. Among Kotas households, 33.72 percent were deprived in the indicator of completion of five years of schooling. However only 10.46 percent of the households were having child death and 25.58 percent of households were malnourished. Among Kurumbas households 49.28 percent were deprived in the indicator of completion of five years of schooling. However, only 12.14 percent of households had child death.

Among Irulas households, 59.58 percent were deprived in the indicator of completion of five years of schooling and 97.91 percent of the households were malnourished. However, more than 90 percent of the households had no access to clean drinking water, adequate sanitation and electricity. Among Paniyans households, 84.43 percent were deprived in the indicator of enrolment in school and more than 90 percent were deprived in health status. However in all the indicators of living, more than 80 percent of the households were deprived. Among Kattunayakans households, 62.90 percent were deprived in the indicator of completion of five years of schooling and more than 90 percent were deprived in health status. However in all the indicators of living more than 80 percent of the households were deprived.

The study tried to find out the aggregate deprivation score for the selected tribal households. Table 60 gives the frequency distribution of aggregate deprivation score of the selected tribal households.

Table 60
Frequency distribution of aggregate deprivation score of the
selected tribal households

Deprivation score	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
Below 0.33	45 (95.74)	79 (91.86)	122 (87.14)	-	-	-
0.33 - 0.60	2 (4.26)	7 (8.14)	16 (11.43)	55 (22.92)	25 (7.48)	15 (24.19)
0.60 -0.90	-	-	2 (1.43)	178 (74.16)	278 (83.24)	35 (56.45)
0.90 -1.00	-	-		7 (2.92)	31 (9.28)	12 (19.36)
Average deprivation score	0.103	0.111	0.124	0.645	0.851	0.731

Source: Calculated values based on field survey

Note: Figures in parentheses indicate percentage to total

Of selected Todas households, majority of them (95.74 percent) had weighted deprivation score of below 0.33 and hence they were non poor. Majority of Kotas households, (91.86 percent) had weighted deprivation score of below 0.33 and hence they were non poor. Of total Kurumbas households (87.14 percent) had weighted deprivation score of below 0.33. However all the Irulas households, Paniyans households and Kattunayakans households had weighted score of above 0.33 and hence there were poor.

The average deprivation score of Todas was the lowest (0.103) while that of Paniyans was the highest (0.851).

Estimated multidimensional poverty index

Table 61 represents the estimated multidimensional poverty index of the selected tribal households.

Table 61**Estimated multidimensional poverty index of the selected tribal households**

s.no	Item	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
1	Multidimensional Headcount ratio (H)	0.073	0.107	0.132	0.969	0.972	0.86
2	Intensity of poverty (A)	0.335	0.363	0.353	0.737	0.852	0.546
3	Multidimensional poverty index (MPI)	0.024	0.039	0.046	0.714	0.828	0.469

Source: Calculated values based on field survey

Among Todas, 7.3 per cent of the households were multidimensionally poor. This means that they were in acute poverty. They were deprived at least either in all the indicators of a single dimension or in a combination across dimensions such as being in a household with a malnourished person, no clean water, a dirt floor and bad sanitation. The average poor person was deprived in 33.50 per cent of the weighted indicators and hence the intensity was 33.50 per cent.

Among Kotas 10.79 per cent of the households were multidimensionally poor and they were in acute poverty. On an average, the poor were deprived in 36.30 percent of the weighted indicators. Among Kurumbas 13.20 per cent of households were multidimensionally poor. On an average, the poor were deprived in 35.30 per cent of the weighted indicators. The average poor person was deprived in 35.30 percent of the weighted indicators and hence the intensity was 35.30 per cent.

Among Irulas, 96.90 percent of the households were multidimensionally poor. On an average, the poor were deprived in 73.70 percent of the weighted indicators. Among Paniyans 97.02 percent of the households were multidimensionally poor. The average poor person was deprived in 85.20 percent of the weighted indicators and hence the intensity was 85.20 percent. Among Kattunayakans 86.00 percent of households were multidimensionally poor. On an average, the poor were deprived in 54.60 percent of the weighted indicators.

The study tried to find out the nature and degree of relationship between quality of life index and multidimensional poverty index by using rank correlation analysis.

Table 62 represents the estimated rank correlation coefficient of quality of life index and multidimensional poverty index for the selected tribal households.

Table 62

Estimated rank correlation coefficient of quality of life index and multidimensional poverty index for the selected tribal households

Rank correlation	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
r value	-0.140	-0.135	-0.123	-0.083	-0.053	-0.061
Number of households	47	86	140	240	334	62

Source: Calculated values based on field survey

For all the tribal groups there was negative rank correlation between the quality of life index and multidimensional poverty index .This implies that the improvement in quality of life would help to reduce poverty.

4.11 Problems faced by the selected tribal groups:

The selected tribal households were facing various problems - inadequate food, unemployment, inadequate transport, inadequate medical facilities etc,.

Table 63 represents the mean score of problems faced by the selected tribal groups

Table 63**The mean score of problems faced by the selected tribal groups**

S. no	Problems	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
1	Inadequate food	8.46	8.25	10.13	62.91	92.23	52.00
2	Inadequate clothing	10.82	37.79	14.32	90.41	85.04	71.75
3	Inadequate housing	5.13	31.39	7.52	40.93	52.34	75.25
4	Inadequate educational facilities	6.00	35.05	38.95	95.25	97.19	81.50
5	Inadequate medical facilities	37.36	43.60	42.95	34.47	86.20	53.75
6	Unemployment	13.11	21.94	19.29	25.00	30.08	5.37
7	Inadequate transportation facilities	6.25	6.25	6.25	6.25	6.25	6.25
8	Inadequate marketing facilities	23.00	49.70	24.94	58.64	59.77	42.87
9	Insufficient finance	9.13	20.32	11.63	35.6	45.28	25.30

Source: Calculated figures based on field survey, 2014.

4.11.1. Garrett ranking for the problems faced by different tribal groups

Table 64 represents the Garrett ranking for the problems faced by the selected tribal groups.

Table 64**Garrett ranking for the problems faced by the selected tribal groups**

s. no	Problems	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
1	Inadequate food	6	8	7	3	2	5
2	Inadequate clothing	4	3	5	2	4	3
3	Inadequate housing	9	5	8	5	6	2
4	Inadequate educational facilities	8	4	2	1	1	1
5	Inadequate medical facilities	1	2	1	7	3	4
6	Unemployment	3	6	4	8	8	9
7	Inadequate transportation facilities	7	9	9	9	9	8
8	Inadequate marketing facilities	2	1	3	4	5	6
9	Insufficient finance	5	7	6	6	7	7

Source: Field survey, 2014.

Todas and Kurumbas have assigned the first rank to the problem of inadequate medical facilities while Kotas considered inadequate marketing facilities as the major problem. However Irulas, Paniyans and Kattunayakans have assigned the first rank to the problem of inadequate educational facilities.

The study tried to apply Kruskal Wallis test to find out whether there is significant difference in the rank assigned for the problems faced by different tribal groups. The calculated Kruskal Wallis test indicates that there was significant difference in ranking of the problems faced by different tribal groups since the calculated Kruskal Wallis value (13.36) was higher than $X^2_{0.05}=11.07$.

4.12. Desired measures to improve the quality of life of tribals

Table 65 represents the mean score of the desired measures to improve the quality of life of the selected tribal groups

Table 65**Mean score of the desired measures to improve the quality of life of tribals**

s.no	Desired measures	Todas	Kotas	Kurumbas	Irulas	Paniyans	Kattunayakans
1	More educational facilities	86.98 (2)	57.69 (6)	86.17 (3)	73.07 (4)	96.01 (1)	65.65 (5)
2	More health facilities	90.09 (1)	62.07 (5)	91.89 (1)	78.14 (3)	34.17 (10)	68.87 (4)
3	Access to drinking water facilities	80.44 (3)	70.93 (4)	87.31 (2)	89.77 (2)	26.13 (11)	88.64 (2)
4	Proper sewage disposal facilities	71.93 (4)	79.33 (3)	68.65 (5)	71.57 (5)	7.08 (13)	86.31 (3)
5	More housing facilities	67.83 (5)	93.11 (1)	61.12 (6)	89.96 (1)	41.52 (9)	90.42 (1)
6	Facilities for marketing of products	50.81 (7)	86.85 (2)	67.51 (4)	57.69 (6)	55.82 (7)	48.21 (7)
7	Provision of smokeless chulahs /gobar gas	53.92 (6)	39.89 (8)	46.67 (7)	57.69 (6)	67.25 (6)	59.57 (6)
8	Upgrading breed of cattle	49.18 (8)	9.21 (12)	46.67 (7)	50.00 (8)	51.94 (8)	15.65 (10)
9	Income generation programmes targeting women	24.95 (10)	47.76 (7)	22.34 (9)	39.77 (9)	91.55 (2)	42.66 (8)
10	Afforestation programme	14.97 (12)	21.64 (10)	21.41 (10)	38.46 (10)	78.41 (5)	15.29 (12)
11	Awareness generation programmes on production and conservation of forests/ forest products	28.88 (9)	34.52 (9)	21.41 (10)	16.50 (12)	80.26 (4)	23.07 (9)
12	Formation of village forest committees for the protection and conservation of forest products	12.84 (13)	7.78 (13)	18.08 (13)	16.79 (11)	83.25 (3)	9.74 (13)
13	Formation / Rejuvenation of co-operative societies	17.10 (11)	16.72 (11)	18.24 (12)	10.22 (13)	19.25 (12)	15.36 (11)

Source: Field survey, 2014.

Note: Figures in parentheses indicate rank

Todas and Kurumbas majorly require the provision of more health facilities since the mean score was found to be higher. For Kotas, Irulas and Kattunayakans the basic requirement was housing since the respective mean score was found to be the highest. Paniyans desired to have more educational facilities to improve the quality of life.

