

AN ANALYTICAL STUDY OF INTER DISTRICT VARIATION IN QUALITY OF LIFE IN TAMILNADU

Dr. R. Annapoorani

Professor, Department of Economics,
Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore

S. Sudha

Ph.D. Research Scholar, Department of Economics,
Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore

Abstract

Quality of life is a concept to formulate welfare development and is related to social, psychological and environmental issues. In this context a research study on “An analytical study of Inter district variation in quality of life in Tamilnadu” was formulated with the objectives of computing quality of life index for different Districts of Tamil Nadu, to find out the extent of variation in different components of quality of life and identify the factors causing inter district variation in quality of life in Tamil Nadu. The study was related to 30 districts in Tamil Nadu and the required data were compiled from. Statistical Hand Book of Tamil Nadu (2010), Census of India 2001 and District Level Estimates of Infant and Child Mortality (2001). The study estimated Gini co efficient ratio and applied multiple regression analysis. As per the study quality of life index was the highest in Chennai (0.70) and lowest in Theni and Krishnagiri (0.52). The application of multiple regression analysis revealed that total population and per capita income were significant factors influencing quality of life. The estimated multiple regression was statistically valid as indicated by the R^2 value (0.60) and F value (1.77). To improve quality of life in various districts of Tamil Nadu the study recommends establishment of more number of colleges and schools, setting up of more number of primary health centres and strengthening income generating activities in backward districts.

Keywords: Quality of Life, Literacy Rate, Life Expectancy, Infant Mortality Rate, Per Capita Income.

Introduction

Quality of life is a concept to formulate welfare development. Quality of life is a multidimensional matter. This concept is related to social, psychological, environmental, psychological and social issues. The well-being or quality of life of a population is an important concern in economics and political science. It is measured by many social and economic factors. A large part is standard of living, the amount of money and access to goods and services that a person has; these numbers are fairly easily measured. Others like

freedom, happiness, art, environmental health, and innovation are far harder to measure. This has created an inevitable imbalance as programs and policies are created to fit the easily available economic numbers while ignoring the other measures that are very difficult to plan for or assess.

Many key indicator systems are bringing into the mix measures that give a more humanistic interpretation of what constitutes well-being, satisfaction, or desirability, i.e., the quality of life (QOL). In this sense, QOL indicators are measures that are non-monetary, socially-oriented, and qualitative in context. They manifest the pervasive agreement or general consensus of a population on what is valued and desired.

The quality of life of people in Tamil Nadu is unique Tamilnadu has a very ancient history which goes back some 6000 years. Tamil Nadu ranks fourth among major States in terms of per capita income. Tamilnadu per capita income (at current prices) was Rs 19,889 in 2000-01. Tamilnadu per capita income was higher than that of Kerala (Rs 19,463), Karnataka (Rs 18,041) and Andhra Pradesh (Rs 16,373). The literacy rate of the State has been increasing progressively over the years. As per the 2001 Census, the literacy rate stands at 73.47 per cent, next only to Kerala and Maharashtra and far higher than the all-India level of 65.38 per cent. The sample registration system (SRS) estimates for the year 1997-2001 ranked Tamil Nadu's life expectancy at birth (65.2 for males and 67.6 for females) next only to Kerala, Maharashtra and Punjab. The crude birth rate (CBR) for the State declined from 31.4 in 1971 to 19.3 in 2000 (SRS), and was second only to Kerala (18.2). The crude death rate (CDR) declined from 14.4 in 1971 to 7.9 in 2000 (SRS) and the State ranks eighth in the country in this respect. The NFHS-2 survey shows that the State stands fifth among major States in IMR with Kerala maintaining the lead (16.3) and Maharashtra (43.7) replacing Punjab as the State with the second lowest IMR.

Current Population of Tamil Nadu in 2013 is estimated to be 7.4 Core. The state also maintains a good sex ratio of 995 females for every 1000 males. However there exists variation in components of quality of life in various district of Tamilnadu. While people in Chennai have got the high quality of life people of Dharmapuri have got low quality of life.

Review of literature

Sheyki (2006) made an extensive sociological study of Quality of life by examining the fertility behaviour from a multidimensional perspective. Noronha and Nair (2005) adopted participation process, case histories, biomedical health analysis and spatial and environmental analysis in developing a Quality of Life.

Mishra et al(2009) tried to access the Quality of Life of People Around Bargarh Cement Works of Orissa The survey was organized to collect information on socio-economic variables at the village level from census data of the government as well as household level data through questionnaire method. The study focused primarily the village level analysis and variations across social groups as well covering three aspects viz., Socio-economic

profile of the region and the people, health status of people and assessment of Quality of life of the people and the villages. It is observed that for the overall sample households the quality of index stands at 4.19, which is considered to be "Average" in the value function. Highest quality index was registered by general caste followed by OBC and the lowest index is noted for SC followed by ST. However only general caste recorded a "fair" quality of life compared to all other groups identified as having "Average" quality of life. Occupation wise it is noticed that highest index was registered by service class followed by business and household industry (with a "fair" quality of life) and the lowest was noted in case of persons dependent on forestry (with a "poor" quality of life) followed by non-agricultural labour, artisans and agricultural labour, with "Average" quality of life. Cultivators were found to be having a "Average" quality of life as well.

Beck and Mishra (2010) formulated a study on Socio economic profile and quality of life of selected Organ tribal living in and around Sambalpur town, Orissa. The main objective of the study was, to analyse the socio economic condition of the selected organ tribal families along with the infrastructural facilities available in the locality where the tribal people live, to evaluate the quality of life of these tribal people by the quality of life index. The required data has been collected from 120 organ tribal household. The study found that 35 % of migrant tribals have per capita income between Rs. 3000 to Rs.5000 18.3% of migrant tribal have per capita income between Rs 5000 to Rs 10,000 and 1.7% of migrant tribals have per capita income between Rs. 200 to 500.

Rashid Ashraf Wani (2011) examined some aspects of Socio-economic and quality of life of people of Srinagar city of Kashmir Valley. The study was related to 68 wards of Srinagar City covering 1045 households. The major findings of the study revealed that the socioeconomic and quality of life of very higher income group is far better than the low and middle income group.

However there had been little attempt concentrating on the analysis of inter district variations in quality of life of people. As such a research study on "An Analytical Study on Inter District Variation in Quality of Life in Tamil Nadu" was formulated with the following objectives.

- a. To compute quality of life index for different Districts of Tamil Nadu
- b. To find out the extent of variation in different components of quality of life of different Districts of Tamil Nadu and
- c. To identify the factors causing inter district variation in quality of life of in Tamil Nadu

Methodology

The study is related to 30 districts in Tamil Nadu - Chennai, Kancheepuram, Thiruvallur, Vellore, Tiruvannamalai, Cuddalore, Villupuram, Thanjavur, Nagapattinam, Thiruvarur, Salem, Namakkal, Dharmapuri, Krishnagiri, The Nilgiris, Tiruchirappalli, Karur, Perambalur, Pudukkottai, Coimbatore, Erode, Madurai, Theni, Dindigul, Ramanathapuram,

Sivaganga, Virudhunagar, Thirunelveli, Thoothukkudi, Kanniyakumari. The present research work extensively depends on the Secondary data from various official sources

1. Statistical Hand Book of Tamil Nadu (2010)
2. Census of India 2001, Director of census operations and
3. District Level Estimates of Infant and Child Mortality (2001)

Following the method adopted by K.R. Gupta (2011) for measuring development, the current study tried to estimate quality of life index based on the following indices.

(i) Index of 'literacy rate' is given by:

$$IE = \frac{(\text{Actual value}) - (\text{Minimum value})}{(\text{Maximum value}) - (\text{Minimum value})}$$

The minimum and maximum value are fixed as 0 and 100 respectively

(ii) Index of 'life expectancy' is given by:

$$IE = \frac{(\text{Actual value}) - (\text{Minimum value})}{(\text{Maximum value}) - (\text{Minimum value})}$$

For life expectancy, the upper limit was assigned to 77 years and lower limit 1 was assigned to 28 years.

(iii) Index of 'infant mortality' is given by:

$$IM = \frac{(\text{Actual value}) - (\text{Minimum value})}{(\text{Maximum value}) - (\text{Minimum value})}$$

For infant mortality, the upper limit was set at 9 per 1,000 and the lower limit at 229 per 1,000.

(iv) Actual value of Purchasing Power Parity is given by:

$$PPP = \frac{\text{Per capita income of the state}}{\text{Per capita GDP}} * 1240$$

Hear, PPP refers to the purchasing power parity of rupee equivalent to dollar. The per capita GDP at the All India level is considered as \$ US 1,240 as given by the UNDP. The per capita GDP of India at current price stood at Rs. 6,262 in the year 2010-2011.

(v) Index of per capita income of the state is given by:

$$IPI = \frac{(\text{Actual value of PPP of the state}) - (\text{Minimum value of PPP})}{(\text{Maximum value of PPP}) - (\text{Minimum value of PPP})}$$

Here the UNDP assume the minimum and maximum values of per capita GNP at PPP to be \$US 100 and 5,448 respectively.

(vi) Index of quality of life is given by:

$$Qli = \frac{\text{Sum of index numbers of all items of quality of life}}{\text{Number of items of quality of life}}$$

Hypotheses formulated

- i. There exist no district wise variation in different component of quality of life and
- ii. Geographical area, food grain production, number of schools, number of primary health centres and per capita income are insignificant determinants of quality of life.

Tools used

Gini co- efficient ratio

The current study tried to estimate Gini co efficient ratio to find out the extent of variation in the selected variables life expectancy at age, infant mortality and literacy, per capita income, total population, geographical area, area sown, gross cropped area, gross irrigated area, net irrigated area, cropping intensity, rainfall, food grain production and employment.

The formula used was

$$G = \frac{N+1}{N-1} - \frac{2}{N(N+1)U} \sum_{i=1}^n p_i X_i$$

P_i = The rank assigned to the districts;

X_i = Actual value assigned to the districts;

U = Actual value of the districts / number of districts

N = Number of district

Multiple regression analysis

To identify the factors influencing quality of life index, multiple regression equation was specified as under

$$Y = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + B_5 X_5 + B_6 X_6 + B_7 X_7$$

Y = Quality of life index

X₁ = Total population

X₂ = Per capita income

X₃ = Employment

X₄ = Geographical area

X₅ = Food grains production

X₆ = Number of schools

X₇ = Number of primary health centres

Findings of the Study

Inter district variation in education in Tamilnadu

Estimated literacy rate index of different districts of Tamil Nadu 2001

Since literacy rate is an important component of quality of life the current study tried to calculate literacy rate index.

Table 1 represents estimated literacy rate index of the different districts of Tamil Nadu

Table 1 Estimated Literacy Rate Index of the Different Districts In Tamil Nadu - 2001

S.No	Districts	Literacy rate	Literacy rate index	Rank
1	Thiruvallur	76.9	0.76	6
2	Chennai	85.3	0.85	2
3	Kancheperum	76.9	0.76	6
4	Vellore	72.4	0.72	14
5	Dharmapuri	61.4	0.61	30
6	Thiruvannamalai	67.4	0.67	21
7	Villupuram	63.8	0.63	27
8	Salem	65.1	0.65	25
9	Namakkal	67.4	0.67	21
10	Erode	65.4	0.65	24
11	The Nilgiris	80.0	0.80	4
12	Coimbatore	76.79	0.76	6
13	Dindigul	69.4	0.69	19
14	Karur	68.1	0.68	20
15	Trichirapalli	77.9	0.77	5
16	Perambalur	66.1	0.66	23
17	Krisnagiri	64.1	0.64	26
18	Cuddalore	71.1	0.71	17
19	Nagapattinam	76.3	0.76	6
20	Tiruvarur	76.6	0.76	6
21	Thanjavur	75.5	0.75	12
22	Pudukottai	71.1	0.71	17
23	Sivagangai	72.2	0.72	14
24	Madurai	77.8	0.77	5
25	Theni	71.2	0.71	17
26	Virudunagar	73.7	0.73	13
27	Ramanathapuram	72.96	0.72	14
28	Tuticorin	81.5	0.81	3
29	Thirunelveli	76.1	0.76	6
30	Kanniyakumari	87.6	0.87	1
	Tamil Nadu	73.5	0.73	

Source: District Statistical Hand Book 2001

Table 1 reveals that literacy rate was the highest in Kanniyakumari (87.5 percent) and lowest in Dharmapuri (61.4 percent) As such the estimated literacy rate index was found to be the highest in Kanniyakumari (0.87) and lowest in Dharmapuri (0.61).

Inter district variation in infant mortality rate Tamil Nadu

Table 2 represents estimated infant mortality index of the different districts of Tamil Nadu

Table 2 Estimated Infant Mortality Index of Different Districts in Tamil Nadu 2001

S.No	Districts	Infant mortality rate	Infant mortality index	Rank
1	Thiruvallur	30.8	0.90	10
2	Chennai	23.9	0.93	5
3	Kanchepuram	26.8	0.91	8
4	Vellore	28.3	0.91	8
5	Dharmapuri	47.5	0.82	24
6	Thiruvannamalai	53.7	0.79	29
7	Villupuram	40.5	0.85	20
8	Salem	39.3	0.86	18
9	Namakkal	40.9	0.85	20
10	Erode	45.4	0.83	23
11	The Nilgiris	21.6	0.94	4
12	Coimbatore	23.6	0.93	5
13	Dindigul	19.2	0.95	3
14	Karur	38.5	0.86	18
15	Trichirapalli	29.9	0.90	10
16	Perambalur	46.9	0.82	24
17	Krinagiri	48.2	0.82	24
18	Cuddalore	29.4	0.90	10
19	Nagapattinam	33.8	0.88	15
20	Tiruvarur	10.5	0.99	1
21	Thanjavur	48.8	0.81	27
22	Pudukottai	30.4	0.90	10
23	Sivagangai	23.8	0.93	5
24	Madurai	34.2	0.88	15
25	Theni	67.0	0.73	30
26	Virudunagar	21.9	0.94	3
27	Ramanathapuram	29.0	0.90	10
28	Tuticorin	36.1	0.87	17
29	Thirunelveli	42.1	0.84	22
30	Kanniyakumari	14.6	0.97	2
	Tamil Nadu	48	0.81	

Infant and Child Mortality in India: District Level Estimates

Table 2 reveals that the estimated infant mortality index was found to be the highest in Tiruvarur 0.99 and lowest in Theni 0.73.

Inter district variation in life expectancy in Tamil Nadu

Table 3 represents estimated life expectancy index of different districts of Tamil Nadu

Table 3 Estimated Life Expectancy Index of the Different Districts in Tamil Nadu 2001

S.No	Districts	Life expectancy	Life expectancy index	Rank
1	Thiruvallur	67.4	0.80	10
2	Chennai	74.2	0.94	1
3	Kanchepuram	69.3	0.84	3
4	Vellore	65.6	0.76	19
5	Dharmapuri	61.8	0.68	30
6	Thiruvannamalai	66.6	0.78	13
7	Villupuram	65.1	0.75	21
8	Salem	65.2	0.75	21
9	Namakkal	66.2	0.77	16
10	Erode	69.2	0.84	3
11	The Nilgiris	69.2	0.84	3
12	Coimbatore	69.3	0.84	3
13	Dindigul	64.6	0.74	24
14	Karur	68.1	0.81	9
15	Trichirapalli	67.5	0.80	10
16	Perambalur	62.1	0.69	27
17	Krinagiri	62.1	0.69	27
18	Cuddalore	68.9	0.83	7
19	Nagapattinam	66.4	0.78	13
20	Tiruvarur	66.0	0.77	16
21	Thanjavur	64.4	0.74	24
22	Pudukottai	65.5	0.76	19
23	Sivagangai	67.6	0.80	10
24	Madurai	62.1	0.69	29
25	Theni	62.3	0.7	26
26	Virudunagar	66.6	0.78	13
27	Ramanathapuram	65.2	0.75	21
28	Tuticorin	68.3	0.82	8
29	Thirunelveli	65.8	0.77	16
30	Kanniyakumari	72.7	0.91	2
	Tamil Nadu	66.7	0.78	

Source: Census of India 2001, Director of census operations, Tamil Nadu

Table 3 reveals that life expectancy index was the highest in Chennai (0.94 percent) and lowest in Dharmapuri (0.68 percent).

Inter districts variation in per capita income in Tamilnadu

Table 4 represents estimated index of per capita net state domestic product for various district in Tamilnadu

Table 4 Estimated Index of Per Capita Net State Domestic Product at Factor Cost for Different District of Tamil Nadu - 2010-11

S.No	Districts	Per capita income domestic product at Current Prices In ₹	Purching power parity In ₹	Index of per capita net state domestic product	Rank
1	Thiruvallur	379145	75078	0.045	4
2	Chennai	881115	174478	0.108	1
3	Kanchepuram	447411	88596	0.053	3
4	Vellore	379325	75113	0.045	4
5	Dharmapuri	248386	49185	0.028	12
6	Thiruvannamalai	184144	36464	0.020	20
7	Villupuram	224389	44433	0.025	15
8	Salem	359941	71275	0.042	7
9	Namakkal	210923	41766	0.023	17
10	Erode	373206	73902	0.044	6
11	The Nilgiris	91883	18194	0.008	29
12	Coimbatore	765974	151678	0.094	2
13	Dindigul	233528	46243	0.026	13
14	Karur	107130	21213	0.010	28
15	Trichirapalli	271992	53859	0.031	11
16	Perambalur	132302*	26198	0.013	24
17	Krisnagiri	21641	4285	0.003	30
18	Cuddalore	211102	41802	0.023	17
19	Nagapattinam	155247	30741	0.016	22
20	Tiruvarur	116447	23058	0.011	26
21	Thanjavur	215779	42728	0.024	16
22	Pudukottai	138616	27448	0.014	23
23	Sivagangai	110104	21802	0.011	26
24	Madurai	329826	65312	0.038	9
25	Theni	167339	33136	0.018	21
26	Virudunagar	315427	62460	0.037	10
27	Ramanathapuram	119008	23565	0.012	25
28	Tuticorin	233746	46286	0.026	13
29	Thirunelveli	339939	67314	0.040	8
30	Kanniyakumari	194286	38472	0.021	19
	Tamil Nadu	7937660	1571814	0.026	

Source: Central Statistical Office (CSO) website as on 01.03.2012 Estimated figure based on the data computed

Table 4 implies that the index per capita net state domestic product was found to be the highest in Chennai (0.108).

Estimated quality of life index for the different districts of Tamilnadu

Table 5 represents estimated quality of life index for the different districts of Tamil Nadu

Table 5 Estimated Quality of Life Index for Different Districts of Tamil Nadu

S. No	Districts	Life expectancy index	Infant mortality index	Literacy rate index	Index of per capita net state domestic product	Quality of life index	Rank
1	Thiruvallur	0.80	0.90	0.76	0.045	0.62	8
2	Chennai	0.94	0.93	0.85	0.108	0.70	1
3	Kanchepuram	0.84	0.91	0.76	0.053	0.64	4
4	Vellore	0.76	0.91	0.72	0.045	0.60	13
5	Dharmapuri	0.68	0.82	0.61	0.028	0.53	28
6	Thiruvannamalai	0.78	0.79	0.67	0.020	0.56	25
7	Villupuram	0.75	0.85	0.63	0.025	0.56	25
8	Salem	0.75	0.86	0.65	0.042	0.57	23
9	Namakkal	0.77	0.85	0.67	0.023	0.57	23
10	Erode	0.84	0.83	0.65	0.044	0.59	17
11	The Nilgiris	0.84	0.94	0.8	0.008	0.64	4
12	Coimbatore	0.84	0.93	0.76	0.094	0.65	3
13	Dindigul	0.74	0.95	0.69	0.026	0.60	13
14	Karur	0.81	0.86	0.68	0.010	0.59	17
15	Trichirapalli	0.80	0.90	0.77	0.031	0.62	8
16	Perambalur	0.69	0.82	0.66	0.013	0.53	28
17	Krishnagiri	0.69	0.82	0.64	0.019	0.52	30
18	Cuddalore	0.83	0.90	0.71	0.023	0.61	11
19	Nagapattinam	0.78	0.88	0.76	0.016	0.60	13
20	Tiruvarur	0.77	0.99	0.76	0.011	0.63	6
21	Thanjavur	0.74	0.81	0.75	0.024	0.58	22
22	Pudukottai	0.76	0.90	0.71	0.014	0.59	17
23	Sivagangai	0.80	0.93	0.72	0.011	0.61	11
24	Madurai	0.69	0.88	0.77	0.038	0.59	17
25	Theni	0.7	0.73	0.71	0.018	0.52	30
26	Virudunagar	0.78	0.94	0.73	0.037	0.62	8
27	Ramanathapuram	0.75	0.90	0.72	0.012	0.59	17
28	Tuticorin	0.82	0.87	0.81	0.026	0.63	6
29	Thirunelveli	0.77	0.84	0.76	0.040	0.60	13
30	Kanniyakumari	0.91	0.97	0.87	0.021	0.69	2
	Tamil Nadu	0.78	0.81	0.73	1	0.83	

Source: Calculated figures based on the data compiled

Table 5 reveals that quality of life index was the highest in Chennai (0.70) and lowest in Theni and Krishnagiri (0.52)

Estimated Gini co efficient ratio for the selected variables

The current study tried to estimate Gini co efficient ratio to find out the extent of variation in the selected variables.

Table 6 represents the estimated Gini co efficient ratio for the selected variables.

Table 6 Estimated Gini Co-efficient Ratio for the Selected Variables

S. No.	Variables	Gini co-efficient ratio
1	Educational index	0.231
2	Infant mortality index	0.182
3	Life expectancy index	0.248
4	Index of Per capita income	0.679
5	Total population	0.284
6	Geographical area	0.288
7	Area sown	0.616
8	Food grains production	0.983
8	Employment	0.915
10	Number of schools	0.925
11	Number of f primary health centres	0.918

Calculated values based on the data compiled

Table 6 reveals that there exist more inter district variation in food grains production since estimated Gini co efficient ratio was the highest for food grain production (0.98)

Identification of factors influencing quality of life

The study tried to identify the factor influencing quality of life by using multiple regression analysis.

Table 7 represents estimated multiple regression co-efficients of quality of life as related to the selected variables.

Table 7 Estimated Multiple Regression Co-efficients of Quality of Life as Related to the Selected Variables

S. No	Variables	Co efficient	T value	Significance level
1	Constant	0.38	.119	.007
2	Total population	0.4775	4.614	.072
3	Per capita income	2.1154	1.3026	.069
4	Employment	1.449	1.2048	.797
5	Geographical area	5.4008	4.1782	.037
6	Food grains production	4.7184	0.5002	.194
7	Number of schools	8.5084	2.2793	.089
8	Number of primary health centres	0.0596	0.6798	.162
	R ² value	0.60		
	F	1.777		

Source: Calculated value based on the data compiled

Table 7 makes it evident of the selected variables total population and per capita income was significant factor influencing quality of life. One present in per capita income is expected to bring about 2.11 percent changes in quality of life. The estimated multiple regressions were statistically valid as indicated by the R^2 value (0.60) and F value (1.77).

Conclusion

1. The highly developed districts have high quality of life index while the backward districts have low quality of life index and
2. The significant factors influencing quality of life are per capita income, total population and geographical area.

Suggestions

To improve quality of life in various districts of Tamil Nadu the study recommends the following measures

1. To improve the educational system more number of collages and schools are to be established
2. To control infant mortality more number of primary health centre should be setup
3. Income generating activities have to be strengthened in backward districts

Reference

1. Gupta K.R. (2011) Measuring Development, Advanced Economic development, New Delhi, pp. 41-49
2. Beck. P and Mishra. B.K. (2010) "socio economic profile and quality of life of selected Organ tribal living in and around Sambalpur town, Orissa" Current Journal of Social Science Vol.2(6) pp.340 - 349
3. Chunkath S.R, (1998). 'Gender and Infant Survival in Tamil Nadu', Economic and Political Weekly, 2-9 October.
4. Dreze, J. and A.K. Sen, (1995). INDIA: Economic Development and Social Opportunity, Oxford University Press, Delhi.
5. Evaluation Reports of DANIDA TNHCP, Phase II, 1994, Vol 1, 2, and 3, Tamil Nadu.
6. Felce D. and Perry J (1995) Quality of life: its definition and measurement. Research in Developmental Disabilities, 16, No. 1, 51-74.
7. Gargi Ghosh (2012) Impact of economic growth, literacy and infant mortality rate on human development in India - special focus on North - West States. Asian Economic Review, 54, 2, 293-303.
8. Mishra(2009) " Corporate Social Responsibility: A Case Study on Quality of Life of People Around Bargarh Cement Works of Orissa (India)" Current Research Journal of Social Sciences 1(3): 93-110
9. Rashid Ashraf Wani (2011) Socio-economic and quality of life of Srinagar city' Journal of Arts, Science & Commerce Vol.- II, Issue -2 123-139
10. Sheyki, M.T., 2006. General review of the sociological changes and prospects of population in Iran-a Sociological study of quality of life. J. Soc. Sci., 12(1): 21-32.
11. Statistical Hand Book of Tamil Nadu (2010), Government of India
12. Census of India 2001, Director of census operations
13. District Level Estimates Infant and Child Mortality(2001)