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1. Introduction

Aging of population is a major aspect of the process of demographic transition. It is generally expressed as older individuals forming large share of the total population. Such an increase is considered to be an end product of demographic transition or demographic achievements with a decline in both fertility and mortality rates and consequent increase in the life expectancy at birth and older ages. The portents of the demographic revolution that started with a decline in mortality continued to create waves to initiate decline in fertility. The developed regions of the world being ahead of the developing countries with respect to demographic transition have already experienced its consequences and the developing world is currently facing a similar situation. Although the proportion of the elderly, defined as consisting of those persons aged 60 and above in a population, seems to be relatively small in some of the developing countries, they have more the elderly persons in absolute terms because of their large population base.

The recent emphasis on studies pertaining to the elderly in the developing world is attributed to their increasing numbers and deteriorating conditions. The lives of many older people are affected more frequently by the social and economic insecurity that accompany demographic and development process (World Bank 1994). The growth of individualism and desire of the independence and autonomy of the young generation (serow 2001) affect the status of the elderly. The studies show that the socio economic condition of older women is more vulnerable in the context of the demographic and the socio cultural change (Tout 1993). The situation of the elderly poverty has been a consistent phenomenon in the third world as the older population is deprived of the basic needs (Keyfitz and Flieger 1990). Chambers (1995) described the eight diminution of deprivation among the elderly as poverty, social inferiority, social isolation, physical weakness, vulnerability, seasonality, powerlessness and humiliation of the aged. The poverty is sought to be a major risk of ageing in developing countries (Sen1994) and study by World Bank reveals that in the most of developing countries the older people and dependent are poor and vulnerable (World Bank 1994). Ageing diminishes the

capacity to work and earn. , a reduced capacity for income generation and a growing risk of serious illness are likely to increase the vulnerability of elders to fall into poverty, regardless of their original economic status...” (Lloyd-Sherlock, P., 2000). The presence of elderly make several implication on the production function with in the household and thus on overall work effort that reflects in the income and production (Schwarz, 2003). The inability in the initial endowment of an individual that deteriorates as they go up in the life cycle he becomes more vulnerable and not in a position in which they fails in the risk management and maintenance of cope up strategy in maintaining level of living condition (Zwi 1993). There is a perceived notion that the elderly presents in a household will reduce economies of scale as it increases the consumption of more private goods such as medicines that can reduce over all welfare of the households.

A social and institutional factor such as those the family size becomes narrow as a result of demographic process the belief of the children will take care of the parents in the old age is eroding in India (Dandelkar 1996). The situation in the urban areas shows of a rejection of the older people by the next generation and is spreading to the rural areas (Desai 1985). In the nuclear family regime the position of the aged become more vulnerable and treated as a burden to the family (PKB Nayar 1992). The social negligence of the aged occurs due to cultural social and economic relations within the society and its coexistence with demographic development. The vulnerability of the aged is mainly implied in the family size and family set up (Harven 2001). Changing family ties and formation of the small and nuclear family had led to a negligence of the aged (Achenbaum 1978). The transformation the relations had resulted in a state of negligence of the aged (Burton and Dilworth 1991). The development and modernization can result in integration of various part of globe with high incidence of migration, which will uproot intergenerational support that affects the existence of the elderly (Martin 1990, Philips 1995).

From these studies it is evident that people in the old age suffer from different kinds of eventualities in their old age. It can pause a condition where elderly are prone to the deteriorating life condition in there later life. Here we mainly focuses on the different

dimensions of the life that get more sensitive in the old age by profiling living condition of the elderly in India.

2. Context of the study

According to the United Nations (2004), the population of the world stood around 6.1 billion in the dawn of 21st century and likely to increase to 9.3 billion by 2050. Between 2000 and 2150, the global aged population is likely to multiply almost by four-fold (from 595 millions to 2 billion). The same phenomenon is expected in both growth rates of the elderly and its proportion in the coming decades. The proportion of the elderly population is expected to increase from 10 per cent in 2000 to 15 percent in 2025 and 21.1 percent in 2050 respectively. Countries like China and India will remain not only are at the forefront in terms of absolute number of total population in the Globe, but also in terms of absolute number of the elderly population.

The 2001 census has shown that the elderly population of India consists of 28 states and 7 Union Territories accounted for 77 million. In 1961, the elderly population was only 24 million; it increased to 43 million in 1981 and to 57 million in 1991. The proportion of the elderly persons in India has risen from 5.63 per cent in 1961 to 6.58 per cent in 1991 (Irudaya Rajan, Mishra and Sarma, 1999) and to 7.5 per cent in 2001 (Irudaya Rajan, 2006). This is also true of other older age groups. The elderly population aged 70 years and above which had counted just 8 million in 1961 rose to 21 million in 1991 and to 29 million in 2001. The proportion of the elderly above 70 to total population has increased from just 2.0 per cent in 1961 to 2.9 in 2001. In 1961, Indian Census reported 99,000 centenarians. Of the corresponding period has gone up to 138,000. The growth rate among different groups of the elderly namely 60 plus, 70 plus and 80 plus during the decade 1991-2001 was much higher than the general population growth rate of 2 per cent per annum.

The different demographic regimes with in the country stand at different stages of demographic created such an interstate disparity that resulted in differential degree of population ageing across states.

Table 1: Demographic Profile of Aged in India 1991-2001

<i>States/union territories</i>	<i>2001</i>		<i>1991</i>	
	Number in 000	Per cent to total population	population in 000	Percentage of the elderly
India	76622	7.44	55606	6.58
A & N Islands	17	4.87	10	3.55
Andhra Pradesh	5788	7.64	4306	6.47
Arunachal Pradesh	50	4.57	37	4.33
Assam	1560	5.86	1186	4.25
Bihar	5501	6.64	5227	6.05
Chandigarh	45	4.99	29	4.52
Chhatisgarh	1504	7.23	NA	
D. & N. Haveli	9	4.00	6	4.40
Daman & Diu	8	5.09	6	6.32
Delhi	720	5.22	444	4.72
Goa	112	8.35	74	6.34
Gujarat	3499	6.92	2540	6.15
Haryana	1584	7.51	1230	7.42
Himachal Pradesh	548	9.01	402	7.79
Jammu & Kashmir	675	6.71	432	5.78
Jharkhand	1579	5.87	NA	
Karnataka	4062	7.70	3041	6.78
Kerala	3336	10.48	2549	8.77
Lakshadweep	4	6.15	3	5.22
Madhya Pradesh	4281	7.09	4254	6.43
Maharashtra	8455	8.74	5453	6.91
Manipur	145	6.09	109	5.94
Meghalaya	106	4.58	82	4.62
Mizoram	49	5.50	34	4.93
Nagaland	90	4.54	65	5.40
Orissa	3039	8.28	2217	6.98
Pondicherry	81	8.32	56	6.90
Punjab	2192	9.02	1532	7.56
Rajasthan	3810	6.75	2666	6.06
Sikkim	29	5.37	19	4.66
Tamil Nadu	5507	8.87	4073	7.29
Tripura	233	7.29	192	6.96
Uttar Pradesh	11649	7.02	9250	6.65
Uttaranchal	584	6.89	NA	
West Bengal	5700	7.11	4087	6.0

Note: Calculation by the researcher based on the 1991 and 2001 censuses.

In the process of Ageing of population have regional dimensions in India and remains at differential stages of demographic transition. Among the states, Uttar Pradesh led with 11 million the elderly, followed by Maharashtra (8.5 Million), Andhra Pradesh and West Bengal (5.7 million each) and Bihar and Tamil Nadu with 5.5 Million each. The smallest

number of the elderly is found in the union territory of Lakshadweep. The low fertility state of Kerala ranks as number one with the highest proportion of the elderly in the country with 10.5 in 2001. Punjab and Himachal Pradesh occupy the second largest position in terms of percent of the elderly, followed by states of Tamil Nadu (8.9) and Maharashtra (8.7). Dadra Nagar Haveli registered the lowest proportion (4). The highest percent of 80 years and above is seen in Himachal Pradesh (1.3 Per cent), followed by Kerala (1.2 Per cent).

With A fast increasing trend India's the elderly population aged 60 and above is expected to increase from 77 million in 2001 to 179 million in 2031 and further to 301 million in 2051. The proportion is likely to reach 12 per cent in 2031 and 17 per cent in 2051. The number of the elderly persons above 70 years of age (old-old) is likely to increase more sharply than of the elderly above 60 years and above. The old-old are projected to increase five-fold between 2001-2051 (from 29 million in 2001 to 132 million in 2051). Their proportion is expected to rise from 2.9 to 7.6 per cent. Although we have found excess males in the age group 60 and above, the old-old sex ratio is very favorable to females. The oldest old (80+) among the elderly in India is expected to grow faster than any other age group in the population. In absolute terms, it is likely to increase four-fold from 8 million in 2001 to 32 million in 2051. In short India is dooming towards a graying future (Rajan 2006).

With this background paper make an attempt to profile living condition of elderly in India to focus on their different aspects of deprivation as age goes up over sixty years.

3. Objectives of the paper

In this paper we make an attempt to profile life of elderly that reflects on deprivation among the elderly. Here most important question is whether age acts a determining factor in the life of a person. Or does age mediates living condition along with other factors that coexistence in life. Is there any change in the living condition over chronological ladders of human life? How does differelife varies across chronological ladder across space in India over time through a narration of what is happening in the Indian states in the past decade. Here we look into four parameters that create risk and to which chronologically disadvantaged population has to respond. They are marital status, work status, living arrangements of the elderly and dependency. Then look into how close interactions

between these factors affect the overall living of the elderly by using an index of life for the Indian states.

Here we mainly focus on how there is an overall decline in the life of elderly by looking into four dimensions of life in terms of marital status, economic status (work participation), dependency and living arrangements. Here we profile these aspects to understand the pattern of living among elderly in Indian states.

4. Different dimensions of insecurity in the old age

As a person moves along the life cycle to the higher age group a general change occurs in his or her living environment. This is mainly because as the age goes up the ability of the individual to convert their endowments into output. The elderly person loses out their lifetime annuities as they pass through a lean period of their life (Bagchi 2003). We are taking four indicators to visualize the living condition of the elderly. Four domains that reflect quality of life as Marital Status, Dependency Status, Living arrangements and work status in terms of engaged in economic activity.

Marital status of the elderly assumes special significance in the context of care in old age as it is known that those who are married fare better in all economic and social aspects than those who are single. A major concern relates to the increasing proportion of the elderly women, especially widows in the population. Two reasons are given for the marked gender disparity in widowhood namely in India (i) longer life span of women compared to men and (ii) the general tendency in India for women to marry men older than themselves (Gulati and Irudaya Rajan 1999). Also widowed men are much more likely to remarry and thus restore their earlier status in life. Though the relationship between the well-being of the elderly and their marital status cannot be spelt out precisely, any change in the marital status of the elderly deserves careful examination. The relation between marital status and well-being has been widely studied especially in the western societies. These studies have documented that mortality rates are higher for nonmarried¹ people than married people, and are especially high for the formerly married (Gove 1973; Trovato and Lauris 1989). In general, these studies have shown that widowed individuals have poorer health than do the currently married, the differences being greater for men than for women. On the whole, studies have found

marital differences in health and mortality to be similar. The divorced and separated people appear least healthy, followed by widowed, then single people, while the married people appear most healthy (Hu and Goldman 1990; Umberson et al 1992; Verbrugge 1979; Wyke and Ford 1992). Thus we take marital status as one of the key variables in determining quality of life

The conventional living patterns among the elderly have drastically changed, following the reduction in fertility and the increase in life expectancy especially at older ages. In India, the traditional practice has been for people to live together with children in old age. Living with children need not necessarily be with the intention of receiving support, but often the rest of the family also benefits from the arrangements. For example, when the younger women of the household go to work, their children are often taken care of by the grandparents, determining quality of life in the later years.

The researchers have also examined the effects of living arrangements on the physical and psychological well-being of the elderly. According to them, changes in living arrangements, family structure and mode of retirement are believed to adversely affect the old (D'Souza, 1989). Leaving the parental home for education and employment results in the elderly parents having to live alone at home until when children come back or their parents at home is urgently required (Gaymu, 2003). It is widely known that the erosion of the traditional norm whereby the elderly generally live with children or relatives reduces the well-being of the older population (Palloni, 2001). Living arrangement is an important component when dealing with the welfare of any specific group. The elderly, being less able to be independent, need the care and support of others in several respects. Taking care of the elderly refers mainly to the emotional support; on the other hand support given to the elderly refers to the financial and material support. The former type of support is expected from the families or persons closer; whereas the latter is supposed to be a joint effort of the immediate family and society. The care and support enjoyed by the elderly is linked to their residence. Here we assume that family is the safest form of security and rates living alone removed from their immediate relatives (spouse and child) as the biggest form of deprivation for the elderly.

¹ unmarried persons include unmarried persons as well as 'have-been married' persons.

Along with these indicators notion of dependency also plays a very vital role in the enhancing of deprivation among the elderly. complete dependency takes away degree of autonomy in the economic and social decision making. Studies from sub Saharan Africa shows that dependent elderly suffers from high degree of deprivation (kamooura 2004). Study by Rajan and Mishra and sarma 1999 gives high social insecurity in the case of dependent the elderly. So here we take degree of full dependency among the elderly as an indicator of low quality of life among the elderly. So here we take following aspects of life as a determinant of better life in the old age.

4.1. Marital status

Marital status of the elderly assumes special significance in the context of care in old age as it is known that those who are married fare better in all economic and social aspects than those who are single. A major concern relates to the increasing proportion of the elderly women, especially widows in the population. Two reasons are given for the marked gender disparity in widowhood namely in India (i) longer life span of women compared to that of men and (ii) the general tendency in India for women to marry men older than themselves (Gulati and Irudaya Rajan 1999). Also widowed men are much more likely to remarry and thus restore their earlier status. Though the relationship between the well being of the elderly and their marital status cannot be spelt out precisely, any change in the marital status of the elderly deserves careful examination.

Table 2: Marital status of the elderly in India.(In percentages)

	rural			urban			India		
	Male	Female	total	Male	Female	total	Male	Female	total
Never Married	1.65	0.55	1.10	1.74	1.19	1.46	1.67	0.71	1.19
Currently Married	78.57	39.06	58.96	82.27	38.64	59.97	79.45	38.95	59.21
Widowed	19.43	59.85	39.49	15.85	59.71	38.27	18.58	59.81	39.19
Divorced/Separated	0.36	0.54	0.45	0.14	0.47	0.31	0.31	0.53	0.42

Calculated by using unit level data of NSSO 60th round held in 2004.

The table shows that widowhood and living with out spouse is one of the real challenges for the elderly in India. This incidence of widowhood is almost equally divided in the spatial aspects as in the both the urban and the rural areas about forty percent of the elderly spend

there life with out spouses. But the incidence of widowhood is on the other hand is more than sixty percent among women and is twenty percent for the men in both the urban and the rural areas. This is mainly because the relatively life expectancy is high among women and the practice of marriage with elders among women.

Table 3 shows the state wise picture on the marital status of the elderly in India. Here we take a logistic position that those unmarried separated and widows are of same category with almost identical position in the society. As long as quality of life is considered.

Table 3: The marital status of the elderly in Indian states (percentage of unmarried/widowed among aged)

	rural		urban		total	
	Male	Female	Male	Female	Male	Female
Jammu & Kashmir	23.71	51.08	18.49	60.57	22.91	52.76
Himachal Pradesh	22.39	63.00	20.22	69.42	22.27	63.37
punjab	24.60	47.70	14.89	41.40	21.95	46.03
Chandigarh	21.34	54.81	18.61	52.05	18.70	52.20
Uttaranchal	29.14	61.70	8.23	62.51	25.53	61.90
Haryana	20.38	36.79	16.67	55.19	19.67	41.17
Delhi	12.04	24.05	20.75	53.77	19.60	49.86
Rajasthan	21.75	57.86	21.59	56.72	21.72	57.64
Uttar Pradesh	30.50	54.79	24.34	53.81	29.42	54.61
Bihar	21.28	49.83	26.10	43.98	21.84	49.20
Sikkim	28.91	56.56	26.54	60.19	28.71	56.79
Arunachal Pradesh	18.89	58.76	46.12	80.76	20.02	59.51
Nagaland	14.61	28.72	3.82	11.15	10.45	25.82
Manipur	28.27	58.88	19.26	61.61	25.32	59.95
Mizoram	27.25	53.09	33.06	56.65	29.66	54.66
tripura	18.25	77.99	5.18	68.80	16.64	76.45
Meghalaya	15.61	63.00	19.95	85.83	15.97	65.27
Assam	20.10	70.30	15.87	60.56	19.70	69.22
West Bengal	17.14	75.91	17.67	60.97	17.31	71.27
Jharkhand	30.22	58.90	16.65	53.64	27.83	57.72
orissa	13.20	60.11	12.41	58.13	13.12	59.94
Chhattisgarh	18.52	63.25	19.12	73.71	18.59	64.32
Madhya Pradesh	23.75	55.02	18.91	61.05	22.69	56.42
Gujarat	25.04	61.48	17.67	61.91	22.79	61.62
Daman & Diu	11.70	88.98	27.86	76.49	23.12	82.23
Dadra & Nagar Haveli	13.25	56.12	20.13	86.33	13.57	58.54
Maharashtra	16.10	58.68	14.83	59.32	15.65	58.91
Andra Pradesh	19.08	71.20	16.67	68.40	18.55	70.54
Karnataka	17.52	72.92	14.44	75.34	16.73	73.58
Goa	7.34	53.49	24.49	71.64	12.69	58.82

Lakshadweep	32.51	78.20	20.74	70.75	26.20	74.19
Kerala	15.48	64.26	10.81	72.23	14.29	66.16
Tamil Nadu	18.26	68.76	18.22	68.85	18.24	68.79
Pondicherry	19.05	79.22	12.70	70.68	15.39	73.13
Andaman & Nicobar Islands	25.30	69.56	0.00	48.60	20.50	64.16
India	21.43	60.94	17.73	61.36	20.55	61.05

Calculated by using unit level data of NSSO 60th round held in 2004.

The widowhood seems to be chronic problem among the elderly in India. In general the widowhood is mostly a chronic issue among women in India. Almost in all states more than sixty percentages of women are living with out spouse despite significant spatial difference that exists in India While prevalence of widowhood is as low as twenty percent in most of Indian states. In general of widowhood is high in the urban areas in almost all Indian states. The trend of high incidence of loss spouse is making life insecure for the elderly especially to that of women in India in their life.

Table 4: the marital status of the elderly in Indian states across different age groups (percentage of unmarried/widowed among aged)

	60-70		70-80		80 plus	
	Male	Female	Male	Female	Male	Female
Jammu & Kashmir	18.85	45.53	26.28	61.56	40.84	69.86
Himachal Pradesh	17.18	44.36	22.30	82.44	44.33	95.12
punjab	16.35	31.79	27.72	69.63	43.16	90.25
Chandigarh	9.66	41.77	40.77	58.41	28.70	99.26
Uttaranchal	17.31	56.08	23.34	63.26	69.50	93.48
Haryana	11.18	30.40	26.50	55.53	33.20	82.29
Delhi	12.60	42.01	21.00	58.88	66.53	89.91
Rajasthan	15.78	42.42	23.66	73.76	51.63	91.93
Uttar Pradesh	22.03	45.60	34.76	70.32	60.23	81.34
Bihar	16.17	42.56	31.29	62.45	42.08	77.12
Sikkim	29.34	56.40	29.54	54.69	22.88	66.37
Arunachal Pradesh	15.92	56.11	45.59	69.38	6.79	73.28
Nagaland	5.96	6.06	33.45	41.20	73.65	100.00
Manipur	18.36	48.68	37.98	77.37	60.21	97.01
Mizoram	27.43	47.69	38.42	65.20	17.09	100.00
tripura	12.01	66.56	19.11	86.30	54.56	92.70
Meghalaya	14.14	64.47	17.65	59.92	37.31	97.54
Assam	19.18	69.05	20.97	79.35	22.78	55.96
West Bengal	12.87	63.44	20.19	83.57	37.71	90.74
Jharkhand	26.29	51.06	21.68	78.63	56.86	68.78
Rajasthan	10.31	53.90	19.25	73.47	21.83	83.41
Chhattisgarh	15.09	61.65	29.34	66.89	25.95	100.00

Madhya Pradesh	16.08	46.54	32.49	79.15	56.06	83.79
Gujarat	22.46	53.42	18.34	71.57	39.87	89.28
Daman & Diu	17.47	81.43	21.41	79.82	56.00	100.00
Dadra & Nagar Haveli	9.16	31.53	13.36	93.35	100.00	100.00
Maharashtra	11.71	49.25	15.58	76.22	41.13	78.27
Andhra Pradesh	13.73	62.21	21.70	83.78	46.85	94.67
Karnataka	12.24	68.00	26.87	82.33	30.31	98.46
Goa	6.00	38.63	5.12	80.77	95.99	100.00
Lakshadweep	20.73	69.25	28.63	88.25	48.48	70.12
Kerala	7.39	55.91	17.05	74.58	34.76	88.04
Tamil Nadu	13.60	65.42	25.00	71.86	30.94	90.40
Pondicherry	13.84	56.71	8.99	94.43	61.74	100
Andaman & Nicobar Islands	7.15	57.40	32.36	53.47	59.10	100
India	15.56	52.70	24.80	74.52	43.89	86.56

Calculated by using unit level data of NSSO 60th round held in 2004.

The table shows a direct relationship between age and loss of spouse of the elderly. As the individuals moves into categories old old, oldest old they become more prone by the risk of loosing out of spouse. But it is also to be noted that in almost all the state women are the section of the population prone to the risk of widowhood. It should be noted that more than of 85 percent of women are living with out partners among oldest old groups 48 against 43 percent of men. In general the picture on marital status shows that loss of partners is on of chronic phenomenon among aged in India. This loss partners in deed make them in a state of dependency and insecurity in their life.

4.2.Economic status (Work Status)

Inadequate financial resources often times mentioned as one of the major problems of the Indian the elderly. The financial inadequacy seems to be of a higher degree among the elderly women compared to their male counterparts. Another major problem is related to the loss of economic independence with the increase in age. The elderly continue to work though their working hours decrease with increasing age. Financial problems are more common among widows and among the elderly who live in nuclear families. Economic insecurity is considered to be the sole concern of the elderly in barely sustainable households in the rural India. The major sources of worry for the elderly are stress and economic dependence. In this context, analysis of labor force participation rate among the elderly is important from the point of view of understanding their economic dependence

According to the National Sample Survey 1986-87, 34.02 per cent of the rural the elderly were financially independent as against 28.94 per cent of their the urban counterparts. The same survey also noted that aged females residing in the urban areas were mostly dependent (National Sample Survey 1991). Analysis of the employment pattern of the working the elderly shows that, on the whole, their work participation rates were on the decline irrespective of the rural or the urban residence though the work participation of the elderly continues to be remarkably higher in the rural areas compared to the urban areas. One-third of the elderly males continue to work even beyond 80 years of age.

In order to assess the recent trends in work force participation rates among the elderly, we have used the raw data of the 55th and 60th rounds of National Sample Survey. The NSS provides detailed break-up of different types of employment to capture the work intensity among the elderly. Both rounds provide employment status by 14 categories.

Table 5 : Work Force Participation Rate in India by Sex and Sector: 1999-2000 (in percentages)

11	Own account worker	24.6	3.6	14.3	19	2.7	11.2	22.4	3.3	13.1
12	Employer	0.9	0.1	0.5	0.8	0.1	0.5	0.9	0.1	0.5
21	Unpaid family worker	9.8	9.7	9.8	4.9	2.4	3.7	7.9	7	7.5
31	Worked as regular salaried	6.2	1.3	3.8	22.9	5.2	14.4	12.7	2.7	7.8
41	Casual Labour in public works	0.2	0	0.1	0.2	0	0.1	0.2	0	0.1
51	Casual Labour in other works	16.9	8.6	12.9	8.5	2.6	5.7	13.7	6.3	10.1
81	Available for work	1.5	0.5	1	2.9	1.2	2.1	2	0.8	1.4
91	Attending schools	29.4	22.4	26	31.1	28.3	29.7	30	24.6	27.4
92	Attending domestic duties only	0.3	24.1	11.9	0.4	40.3	19.5	0.3	30.2	14.9
93	Engaged in household work	0.2	18.2	9.1	0.1	8.9	4.3	0.2	14.7	7.2
94	Rentier and pensioner	0.7	0.4	0.6	2.4	0.7	1.6	1.3	0.5	0.9
95	No work due to disability	0.8	0.7	0.8	0.8	0.6	0.7	0.8	0.7	0.7
96	Beggars and prostitutes	0	0	0	0	0	0	0	0	0
97	Others	8.5	10.1	9.3	5.9	6.9	6.4	7.5	8.9	8.2

Note: Estimated by the author from the raw NSS data for 55th round.

Among the 14 categories, the following categories of (own account worker, employer, unpaid family worker, worked as regular salaried worker, causal labor in public and other works, attending domestic duties and engaged in household work) are added to arrive at work participation rates of different age groups. Here more than sixty percentage of the elderly are engaged in the work force that includes domestic duties. Out of there activity majority of

them are own workers both in the urban and the rural areas. Salaried and casual workers follow it and those engaged in the domestic activity act as another dominant status in the work status of women.

While in the 60th round of NSS survey we can see a similar pattern with slight lower figures for both the urban and the rural category. Sixty percentage of the rural the elderly are working while it is almost forty five in the case of the urban India. The work participation is relatively higher in the case of men than the females but this difference is significant in the case the urban India while it almost identical in the rural India. Between the two rounds, the rural work participation rates for both males and females have shown a slight decline whereas the urban rates are almost constant for both males and females. The rural work participation rates among males and females were 59 and 66 respectively in the 55th round - 7 points higher among females compared to males (Table 5). The rates were 57 and 62 for males and the urban areas respectively. In general, work participation rates among males are higher than that among females in both the rural and the urban areas and the levels are slightly higher among the rural areas compared to the urban areas.

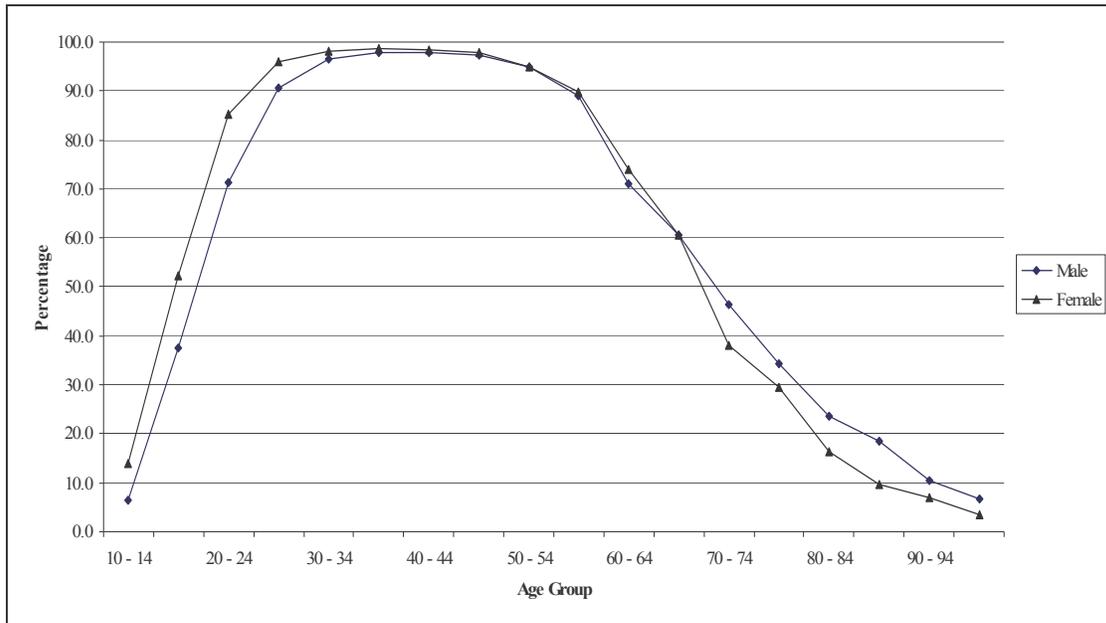
Table 6: Work Force Participation Rate in India by Sex and Sector: 2004 (in percentages)

	The rural			The urban			India		
	Sex			Sex			Sex		
	Male	Female	total	Male	Female	total	Male	Female	total
account worker	40.1	3.6	22.0	21.7	2.6	11.9	35.8	3.3	19.6
employer	1.5	0.5	1.0	1.2	0.0	0.6	1.5	0.4	0.9
unpaid family worker	3.4	6.1	4.7	1.8	1.9	1.8	3.0	5.0	4.0
regular salaried employee	1.2	0.2	0.7	5.1	1.2	3.1	2.1	0.5	1.3
CL in Pub	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
CL in others	12.9	6.4	9.7	3.2	2.2	2.7	10.6	5.3	8.0
	59.3	16.7	38.2	33.0	8.0	20.2	53.1	14.6	33.8
not available but seeking	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0
student	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
domestic duty	1.2	28.4	14.7	1.9	42.9	22.9	1.4	32.0	16.7
domestic as collection of goods	0.5	14.0	7.2	0.4	4.9	2.7	0.5	11.7	6.1
rentiers, pensioners, remittance recipients,	9.1	5.9	7.5	35.0	10.1	22.3	15.3	6.9	11.1
disabled	5.4	3.8	4.6	3.7	3.2	3.4	5.0	3.6	4.3
beggars, prostitutes	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3
others	23.8	30.5	27.1	25.5	30.4	28.0	24.2	30.5	27.3
encaged in work force including domestic duties	61.0	59.2	60.1	35.2	55.8	45.8	54.9	58.3	56.6

Note: Estimated by the author from the raw NSS data of 60th round

We have also calculated work force participation rates by age and sex based on the 60th round and presented them in Figures 1. The figures clearly indicate a decline in work participation rates among males and females beyond age 50; however, the rates still remain substantial. Even in the 80-84 ages, one-fourth of male the elderly and one-sixth of female the elderly continue to be economically active

Figure 1: Age Specific Activity Rate, NSS 60th round.



. According to the latest NSS data, 63 per cent of males and 58 per cent of females continue to work beyond 60 years of age. As they grow older, the work participation rate declines; however, even at the age of 80 and above, 22 per cent of males and 17 percent of females continue to work in India. Higher work participation in old age in India is due to the lack of social safety nets and high levels of poverty. One has to view these trends in work participation rates in the context of widespread poverty and inadequate social security systems in India. Only 2 per cent of men aged 65 and over participate in the labor force in some developed countries whereas in certain developing countries well over half of the elderly men are economically active (Rajan 2004).

Now let us look into the fact that how much of their work is translated into economic contribution. Here we will classify the activity into whether it is contributing to household's income. We will discharge all household duties as being out because it doesn't contribute much to economic status of the households. Table 7 provides information on gainful employment among the elderly in India.

Table 7: Status of gainful employment among the elderly in India 2004 in percentages.

	rural			urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
economically active	59.3	16.7	38.2	33.0	8.0	20.2	53.1	14.6	33.8
non active	40.7	83.3	61.8	67.0	92.0	79.8	46.9	85.4	66.2

Source: Estimated by the author from the raw NSS data of 60th round

On the question of making economically productive contribution made by the elderly it is clear that majority of them are not productively employed in the work force. In India only 33.8 percent are engaged in the productive work while it is significantly higher in the case of men of 53 percent while it is only 14 percent in the case of women. The difference is mainly due to the fact that a senior woman generally engages in the household duties that are out of the purview of economic activities. It should be also noticed that the elderly in the rural areas are more engaged in the economic activity than their urban counterparts as they are forced to work by the conditions of the deprivation in which they live. It should be also noticed that the rural male are mostly engaged in the economic activity with almost 60 percent of them but only 8 percent of them are working in the urban women are working after retirement age of sixty. It should be noticed that predominance of agriculture in the labour force is a characteristic feature of rural India

The state wise estimates of economically gainful workers among the elderly almost show a similar pattern as shown in the national scenario. There is significant fall in work participation is observed in higher age groups. The all India figure shows that in the case of males it goes down from 57 percent to 16 percent as the age goes up from 60-79 category to the eighty plus years of category. In the case of women the figures goes further dip from fifteen percent to two percent in these two age groups.

From the table 8 it is observed that there is higher levels of participation in the case of north and eastern states of India. The gender gap is significant in almost all the state except few in the north east such as arunachal Pradesh, Manipur etc. As it moves there is dip in the rates except in Arunachal where the fall is insignificant. In general age seems to

be one of the key determinants in the working force determination in the economic sense.
It is also clear that sex mediates in quite significantly

Table 8: Status of gainful employment among the elderly in India (states) 2004.

	60-79		80 plus	
	Male	Female	Male	Female
	economically active	economically active	economically active	economically active
Jammu & Kashmir	69.29	2.23	32.58	0.00
Himachal Pradesh	68.65	34.74	34.90	18.00
Punjab	50.42	5.62	10.55	0.00
Chandigarh	27.91	3.02	0.00	0.00
Uttaranchal	65.07	41.99	5.25	5.77
Haryana	44.11	6.26	2.99	0.00
Delhi	39.83	1.59	2.87	0.00
Rajasthan	58.72	13.38	11.05	1.39
Uttar Pradesh	67.71	11.55	22.47	4.47
Bihar	70.78	13.74	27.71	0.00
Sikkim	76.83	25.29	0.00	0.00
Arunachal Pradesh	71.52	33.90	74.61	28.24
Nagaland	71.82	64.78	5.42	0.00
Manipur	60.08	22.95	25.13	0.27
Mizoram	63.29	22.02	20.35	4.78
tripura	55.97	7.29	15.40	0.00
Meghalaya	71.10	41.82	21.24	2.46
Assam	57.78	4.59	33.56	0.00
West Bengal	49.74	6.10	13.78	3.92
Jharkhand	60.26	13.49	7.29	0.00
Orrissa	57.01	10.14	20.05	0.00
Chhattisgarh	59.53	31.04	10.22	16.29
Madhya Pradesh	63.64	24.08	8.29	0.63
Gujarat	54.88	15.07	9.01	1.90
Daman & Diu	40.73	14.98	0.00	0.00
Dadra & Nagar Haveli	82.87	12.15	0.00	0.00
Maharashtra	49.71	21.80	13.71	0.50
Andhra Pradesh	49.88	17.54	5.68	3.83
Karnataka	57.36	18.32	18.23	0.60
Goa	11.58	2.69	0.00	0.00
Lakshadweep	35.20	7.71	0.00	0.00
Kerala	44.25	11.94	12.59	2.55
Tamil Nadu	51.50	24.49	14.56	1.01
Pondicherry	34.56	12.13	0.00	0.00
Andaman & Nicobar Islands	44.40	36.45	38.27	0.00
India	53.1	14.6	15.28	2.43

Source: Estimated by the author from the raw NSS data of 60th round

One of the critical issue raised in the high levels of work participation is that is that for poor the elderly there is only one retirement, not from work, but from the world" (Irudaya Rajan, Mishra, and Sarma 1999).The high levels of work participation among the elderly shows that majority of them are working to avoid the economic and social crisis that they faces both with in and outside family set up. In most of the cases they are compelled by the situation of their life that put them in the labor force in the later years of life. This can be inferred from the fact the large chunk of the elderly constitute the casual labor force in the rural sector with prominence of high absorbance rate in the agriculture sector.

4.3. Living Arrangements among The elderly

The conventional living patterns of the elderly have drastically changed, following the reduction in fertility and the increase in life expectancy particularly at older ages. In India, the traditional practice has been for people to live together with children in old age. Living with children need not necessarily with the intention of receiving support, but often the rest of the family also benefit from the arrangements. For example, when the younger women of the household go to work, their children are often take care of by the grand parents. In fact, the United Nations (2003) in its announcement of theme for international day for older persons depicts healthy older persons as a resource for their families, societies and the economy of their respective countries.

The term ‘living arrangement’ is used to refer to one’s household structure (Palloni, 2001). Irudaya Rajan, Mishra and Sarma (1995) which explains living arrangements in terms of the type of family in which the elderly live, the headship they enjoy, the place they stay in and the people they stay with, the kind of relationship they maintain with their kith and kin, and, on the whole, the extent to which they adjust to the changing environment. Living arrangement is an important component in dealing the welfare of any specific group. The elderly persons, being less able to be independent, need the care and support of others in several respects. Taking care of the elderly refers mainly to the emotional support; on the other hand support given to the elderly refers to the financial and material support. The former type of support is expected from the families or intimate relatives; whereas the latter is supposed to be a joint effort of the immediate

family and society. The care and support enjoyed by the elderly is linked to their residence in other words the living arrangements.

The researchers have also examined the effects of living arrangement on the physical and psychological well being of the elderly. According to them, changes in living arrangements, family structure and mode of retirement adversely affect the old (D'Souza, 1989). Leaving the parental home for education and employment results in the elderly parents having to live alone at home until when children come back or their parents at home is urgently required (Gaymu, 2003). It is widely known that the erosion of the traditional norm whereby the elderly generally live with children or relatives reduces the well being of the older population (Palloni, 2001).

Living arrangements among Indian the elderly using National Family Health Survey-I was addressed by Irudaya Rajan and Kumar (2003). The study presents detailed characteristics of living arrangements among the elderly in India in terms of headship, average household size and marital status. The article draws attention to the fact that only 6 percent of the elderly in India live in a household where their immediate relatives are not present. Furthermore, the paper put forward a few policy prescriptions to enhance the well being of the Indian the elderly.

Here we use both NFHS 2 and NSS 60th round to profile living arrangements of the aged. This is because the NSS survey gives only partial information on the living arrangements. It fails to give some critical indicators such as relations with head etc.

According to the NFHS-2, 7.9 percent of the Indian population is reported as aged 60 and above (IIPS, 2000). Out of the sample, 9511 respondents live in the urban areas, while their the rural counterparts numbered 29583. Among the elderly, the urban and the rural differences with respect to age are negligible. Except for an excess of 5 percent of the rural females in the age group 60-64 compared to the rural males, the gender differences are not very visible with the place of residence. Almost 84 percent of the elderly males in the age group 60-64 reported themselves as heads of households as against 16 percent among women. This is also true among the rural and the urban households. Even at the time of death (90 years and above) close to half of the elderly males are reported as heads of households. Highest percentages of female-headed households are found among widowed and divorced women (Table 9).

Table 9: Head of the Household among The elderly, 1998-99 (in Percentages)

Age group	The urban		The rural		Total	
	Male	Female	Male	Female	Male	Female
60 – 64	85.67	18.42	83.73	15.22	84.19	15.96
65 – 69	83.35	18.21	81.81	15.35	82.18	16.09
70 – 74	76.99	22.62	77.83	16.67	77.64	18.24
75 – 79	73.20	20.00	74.98	14.21	74.52	15.91
80 – 84	65.20	18.64	64.83	14.00	64.91	15.20
85 – 89	53.40	22.12	60.51	13.36	58.75	15.90
90+	41.94	12.07	46.83	7.14	46.06	8.59
Total	79.73	19.24	78.79	15.17	79.01	16.19

Note: Tables generated from the raw data of NFHS 2.

The household size is an indication of the degree of bond among the different generations. If more and more people are living together, the elderly are likely to get better attention including care during sickness. If we define any household, which has more than five members as a joint family, nearly 71 percent of the households in India qualify to be called as joint families. As of now, Indian women on an average end up with 3 children. If any family has more than six members (children, parents and at least one of the grand parents), they are most likely to be three-generation households. Almost half of the households in India are three-generation households. As of now, single-member families are rare in India. However, among the elderly, 1.7 percent of males and 4.5 percent of the females are found to live alone. Close to 10 percent of households consist of just two members. In terms of marital status, divorced persons are likely to live alone (17 Percent), followed by never married (10 percent) and widows (7 percent). In terms of place of residence, 33 percent of the elderly live in 8 member-households in the rural areas compared to 28 percent in the urban areas. On an average, the elderly reside in households with at least 7 members. The urban households have a little smaller average family size than the rural households.

The pattern of living arrangements in India as per the NSS 60th round reveals the pattern of the current co-residence among the Indian the elderly by sex and place of residence. Interestingly, only 2.9 percent of the elderly live alone and another 1.26 percent with others – relatives or non-relatives. More the elderly women (4.07 percent) live alone than to the elderly men (1.77 percent). In other words, only 4 percent of the elderly in India

are living in a household where their immediate relatives are not present. Another 7 percent of the elderly live with their spouses alone, possibly as their children might have migrated (Table 10). A little over half the elderly (51 percent) live with their spouses, own children and grand children; almost 38 percent live with their children and grand children and their spouses are no more. Thus only two categories, namely those who live with spouse, children and grand children, and those who live with children and grand children but without spouse, are predominant among the Indian the elderly. Though much disparity is not noticed between the rural and the urban households in this respect, the differences are pronounced as between men and women.

Table 10: Percentage Distribution of The elderly by Their Living Arrangements,

Living Arrangements	urban			rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Living alone	1.97	3.49	2.72	1.70	4.33	2.92	1.77	4.07	2.86
With spouse only	8.10	4.86	6.51	8.27	6.00	7.22	8.22	5.65	7.01
With spouse, children and grand children	58.70	40.75	49.86	59.15	42.62	51.50	59.02	42.05	51.01
With children and grand children	29.17	48.75	38.81	30.13	45.97	37.47	29.86	46.83	37.86
With other relatives	1.97	2.11	2.04	0.75	1.06	0.89	1.09	1.38	1.23
With non-relatives	0.10	0.04	0.07	0.01	0.02	0.01	0.03	0.02	0.03

Source: Estimated by the author from the raw NSS data of 60th round

According to the NFHS, close to 60 percent of the male the elderly live with their spouses, children and grand children; the corresponding percentage for the female the elderly is only 42 percent. On the other hand, close to 50 percent of the female the elderly live with their children and grand children (without spouse) and only 30 percent of the males live with children and grand children but without spouse. Though every household in India may not have the elderly member, some households could have more than one the elderly member. Almost 58 percent of households had one the elderly member above 60 years of age, 39 percent of households had two the elderly members and 3 percent of households had three or more than two the elderly members,

4.4 Dependency Status

Using the raw data on economic independence, we have attempted an assessment of the level of poverty among Indian the elderly according to sex, place of residence by major states of India. All the elderly in the sample were asked to state their economic dependence, which was coded by three categories: not dependent, partially dependent and fully dependent. We presume that fully dependent the elderly need economic support in old age as they are below the poverty line (see Tables 11 and 12).

Table 11: Dependency Status among Indian the elderly (All India)

Dependency status	rural			urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Not dependent	36.4	24.7	30.7	38.6	22.4	30.4	37.2	23.8	30.6
Partially dependent	18.6	17.1	17.9	16.0	13.4	14.7	17.6	15.6	16.6
Fully dependent	45.0	58.2	51.4	45.5	64.2	55.0	45.2	60.6	52.8

Note: Estimated by the author using the National Sample Survey data (60th round).

Table 11: Dependency The elderly by Sex and Place of Residence (state wise).

State	rural			urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Andhra Pradesh	46.0	64.9	55.3	43.1	59.1	51.5	44.8	62.2	53.6
Assam	50.7	69.0	58.6	45.1	57.1	50.9	49.5	66.0	56.8
Bihar	36.7	54.6	45.1	37.4	63.2	49.9	36.8	56.5	46.2
Gujarat	45.3	58.0	51.8	46.5	63.6	55.4	45.9	60.7	53.5
Haryana	54.1	65.9	60.0	51.1	66.7	59.1	52.8	58.2	55.7
Himachal Pradesh	36.3	37.7	37.0	30.0	52.2	40.6	35.6	39.3	37.4
Jammu and Kashmir	37.7	61.6	48.4	34.8	72.3	51.4	36.8	64.7	49.3
Karnataka	50.4	58.8	54.9	52.8	66.7	59.9	51.6	62.4	57.3
Kerala	53.4	57.7	55.8	53.4	66.9	61.0	53.4	61.4	57.8
Madhya Pradesh	42.1	51.4	46.7	45.5	59.4	52.2	43.3	53.9	48.6
Maharashtra	46.7	52.3	49.6	45.9	62.9	54.4	46.3	57.3	51.9
Orissa	49.4	62.4	55.6	40.4	69.6	55.9	47.5	64.1	55.6
Punjab	57.2	67.9	62.4	46.9	70.2	58.5	53.2	68.8	60.8
Rajasthan	43.7	54.8	49.6	42.6	60.0	52.1	43.2	56.9	50.6
Tamil Nadu	42.1	52.4	46.8	40.3	60.8	50.4	41.2	57.1	48.8
Uttar Pradesh	39.7	54.9	47.0	46.9	64.7	56.0	41.6	57.8	49.5
West Bengal	49.8	67.1	58.2	46.9	64.6	55.5	48.3	65.8	56.9
India	45.0	58.2	51.4	45.5	64.2	55.0	45.2	60.6	52.8

Note: Estimated by the author using the National Sample Survey data (60th round).

In the rural areas, 58 per cent of females and 45 percent of males were fully dependent whereas in the urban areas, these percentages were 64 and 46 respectively. In general, there is a marked difference between males and females in this respect. The most vulnerable group consists of the elderly females in the urban areas; 64 percent of them are dependent on others for food, clothing and health care. This is one of the reasons for the elderly to continue to work in old age in spite of their poor health. In the rural areas, only 5 states (out of 15) have reported a male dependency level above of 50 percent. Ironically, all states except Himachal Pradesh have reported that more than half the number of the elderly women depended on others for their livelihood. Their percentages range from 51 in Madhya Pradesh to 69 in Assam. In the urban areas, with the exception of Haryana, Karnataka and Kerala, all major states report a level of economic dependency below 50 percent for males. The situation is much more vulnerable among the elderly females in the urban areas. Their economic dependency ranges form 52 in Himachal Pradesh to 72 in Jammu Kashmir. As stated earlier

From these pieces of evidences it is clear that in general occurrence of elderly presents cause as a burden on the household, especially in respect of poor households. They are in a bitter position of deprivation and exclusion as the magnitude and the pace of aging go up. With this background we try to examine how it varies across in Indian states to understand spatial difference of the living pattern of the elderly in India.

5. Index of quality of life of the elderly

As the age advances to its higher levels there is a drastic change happens in the living conditions of the elderly. This is mainly due to changes in the living arrangements in the human life that interact each other to provide better quality of living in terms of economic and social status of the elderly. Here we make an attempt to quantify the difference in the living condition across major Indian states. We here adopt a weighted index by incorporating effects of marital status. Work status, living arrangement (living with) and dependency as in the following way.

5.1. Methodology

After identifying four dimensions that affects quality of life as marital status, work status, living arrangements and dependency we create an index for each state with the value between 0 and 1. Here to get the degree of the decline in the quality of life among the elderly we take worst possible condition is that of 1 when all the elderly in the state is unmarried, fully dependent, economically inactive and living alone. And it will be best when the value approaches 0. We first transform the values of each of the index with the condition where we normalize with dividing deviation of the best from each by the range. Here since we are taking the worst indicator of different qualities we have the minimum as the best. Then we take weighted average of the four indicators by taking coefficient of variation as the weight, we will get the index of quality of life for each state ranging from 0 to 1

Index of a state is obtained by

$$\text{Weighted index} = (\text{sum of } (D_{ij} * W_j) / (\text{sum of } W_j)$$

Here D_{ij} is the deviation of the best from each by the range.

W_j is the degree of variation of the four indicators

Table 13 shows the value and the ranking of the index of the 18 major states of India by using NSS 60th round data. Here larger the value (close to 1) less is the quality of life among the elderly in the state.

Table 13 quality of life index of major states in India

1	Haryana	0.4086
2	Jammu & Kashmir	0.4374
3	Uttaranchal	0.4457
4	Bihar	0.4748
5	punjab	0.4912
6	Jharkhand	0.5022
7	orissa	0.5064
8	Maharashtra	0.5218
9	Madhya Pradesh	0.5223
10	Uttar Pradesh	0.5355
11	Chhattisgarh	0.5397
12	Gujarat	0.5407
13	Rajasthan	0.5477
14	Karnataka	0.5572
15	Kerala	0.5658
16	West Bengal	0.5989
17	Andra Pradesh	0.6072

18	Tamil Nadu	0.6236
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The index value ranges between 0.4086 and 0.6238 with the lowest value is in the case of Haryana and highest in the case of TN. States like AP, West Bengal and Kerala showed relatively high index values in terms of decline in the quality of life among the elderly. It is clear that in the north Indian states position of the elderly is better than south Indian states. This question arises from here whether demographic, social and economic transformation has anything to do with quality of life of the elderly.

Social and institutional factors such as the family size resulting from the demographic process the belief of the children will take care of the parents in the old age is eroding in India (Dandelkar 1996). The situation in the urban areas shows of a tendency of rejection of the older people by the next generation and is spreading to the rural areas (Desai 1985). In the nuclear family regime the position of the aged become more vulnerable and treated as a burden to the family (PKB Nayar 1992). The social negligence of the aged occurs due to cultural social and economic relations within the society and its coexistence with emerging process of demographic development. The vulnerability of the aged is mainly implied in the family size and family set up (Harven 2001). Changing family ties and formation of the small and nuclear family had led to a negligence of the aged (Achenbaum 1978). The transformation the relations had resulted in a state of negligence of the aged (Burton and Dilworth 1991). The poverty and deprivation among the elderly is to be viewed as a result of a changing demographic and the socio dynamics (Hareven 1976). This changing dynamic starts within the family as the emergence of nuclear family where the burden of ageing is high (Cliggett and Urbiel 1996) as it result in intergenerational imbalance (Hareven and Adams 1996). In Kerala due to a shrinking family size as a result of low fertility resulted in a change in the intergenerational balance within the society. As a result of small family size and a decline in the number of children, the dependency of the aged is acute and thus led to a state of exclusion of the aged in the state. The transition from joint family to that of nuclear families has resulted in a family relation that creates a negligence of the elderly. The migration of the younger population will hamper the old age care system and return migration of the aged will hamper intergenerational balance (Wiseman, 1980).

These changes in the social and institutional set up that followed by modernization that change general social life which is in the rural way with cosmopolitan segmented life brought about pursuit for efficiency and progress had their effects on position of the elderly in the society (Corgill 1986). The development and modernization can result in integration of various part of globe with high incidence of migration, that uproot intergenerational support mechanisms for the well being of the elderly (Martin 1990, Philips 1995).

From the literature it is clear that with modernization of the society with high incidence of the urbanization, growing migration and rapid industrialization have their impact on the declining of the quality of life. we test this hypothesis that condition of the elderly get worse as the demographic, social and economic transformation sets in. here we consider decline in the household size as an indicator of demographic transformation. Degree of the urbanization and increase of non agricultural households as the indicator of social and economic developments. The result of regression by taking index of quality of life as dependent variable and the urban population, family size and portion of non agricultural households as independent variable we get following results.

Table 14: regression of index of quality of life of elderly and its determinants.

	Beta	Std. Error	T value
(Constant)		0.134338957	4.949479
THE URBAN	0.266268225	0.001866405	2.004915
H SIZE	-0.578473605	0.018145038	-2.32607
H TYPE	0.306707046	0.001239752	2.127311

From the table it is clear that with higher degree of the urbanization and industrialization there is a decline in the quality of life of the elderly in the Indian states. Along with this economic determinant break down of family size also act as a force behind decline in the quality of life among the elderly in the Indian states.

6. Conclusion

The phenomenon of ageing is one of fast appearing social and demographic challenge of the present world. In India though it is in a state of positive demographic dividend with an exceeding young population but it is having a large population base above sixty

accounts for 72 million. The elderly population is one of fast expanding population base in the country. Here we made an attempt to profile living condition of the elderly and to look into how their living pattern varies as the age progresses. The paper mainly look up on living condition of elderly based on four dimensions of life marital status, work status, dependency and living arrangements. There is a visible decline in the standards of life in these aspects as the life progresses. Widowhood and dependency goes up as the age goes up and their incidence falls on women than men as the age goes up. There also occurs a steep decline in the financial autonomy as most of them fails to contribute to family income. There also occurs a substantial increase in the deteriorating living arrangements with a phenomenon of living alone gets prominent in the later years.

The living condition of the elderly varies differently across Indian states. The various dimensions are vertically integrated to get a weighted index called in this paper as *quality of life among the elderly* that take value zero to one with higher value provides worse living condition. It is clear that position of the elderly in terms of material and social well being is betterly positioned in the states of north India rather than south. To understand what plays a crucial role in determining quality of life of elderly in the Indian we resort to regression technique. where we consider decline in the household size as an indicator of demographic transformation. Degree of the urbanization and increase of non agricultural households as the indicator of social and economic developments. The result of regression by taking index of quality of life as dependent variable and the urban population, family size and portion of non agricultural households as independent. From the results it is clear that with higher degree of the urbanization and industrialization there is a decline in the quality of life of the elderly in the Indian states. Along with this economic determinant break down of family size also act as a force behind decline in the quality of life among the elderly in the Indian states.

So the policy to improve the quality of life of the elderly should of sector and state specific as they are determined by the levels of demographic and social transformation that exist in various states.

Reference:

Achenbaum, W.A . Old Age in the New Land: The American Experience since 1790 Baltimore: The Johns Hopkins University Press. (Paper edition) 1978
Bagchi Anil, The Ageing World, Longman 2006

Chambers R, poverty and livelihood whose really counts, Institute of development studies.1995
Chambers R, what really counts putting the first last Intermediate technology publication London 1997

D'Souza V S (1989) Changing Social Scene and Its Implications for the Aged in K G Desai (ed.), Aging India, Ashish Publishing House, New Delhi.

Desai K G situation of the aged in India, Journal of Indian anthropological society 20(3) 1985

Estes, C. and Associates, Social Policy and Ageing. Thousand Oaks: Sage, 2001.

Fries JF. Aging, natural death, and the compression of morbidity. 1980. Bull World Health Organ.;80(3):245-50, 2002.

Gruenberg EM The failures of success. Milbank Memorial Fund Quarterly – Health and Society, 55(1):3–24, 1977

Haines, Michael R.. "Disease and Health Through the Ages." In Julian Simon, ed., The

Havens B, Long term care into 21st century BOLD 1997

Hayward, M.D. and Zhenmei Zhang.. "The Demographic Revolution in Population Ageing: A Century of Change, 1950-2050." Pp. 69-85 in Robert K. Binstock and Linda K. George (Eds.), Handbook of Ageing and the Social Sciences, Fifth Edition. New York: Academic Press 2001

Hu, Y. and N. Goldman. 1990. Mortality differentials by marital status: An international comparison. Demography. 27, 233-250

Irudaya Rajan S, Mishra U S and Sharma P S (1995) Living Arrangements among the Indian The elderly, Hongkong Journal of Gerontology, Vol. 9, No. 2, pp. 20-28

Irudaya Rajan S, Mishra U S and Sharma P S (1999), India's the elderly burden or challenge, SAGE publication

Irudaya Rajan, S. 2004. Chronic Poverty among Indian The elderly. Chronic Poverty Research Centre and Indian Institute of Public Administration Working Paper 17, Indian Institute of Public Administration, New Delhi.

Keyfitz, Nathan, and Wilhelm Flieger, World Population Growth and Aging: Demographic Trends in the Late Twentieth Century (Chicago: University of Chicago Press), 1990.

Kramer M The rising pandemic of mental disorders and associated chronic diseases and disabilities. Acta Psychiatrica Scandinavica, 62(285):282–297,

Liebig, Phoebe and S Irudaya Rajan. (eds). 2003. An Aging India: Perspectives, Prospects and Policies. Haworth Press, New York.

Manton KG Changing concepts of morbidity and mortality in the elderly population. Milbank Memorial Fund Quarterly – Health and Society, 60(2):183– 244, 1982.

Monirul Islam Khan, Challenges in Constructing the sociological Concept of Poverty, Bangladesh e-Journal of The sociology. Vol. 2. No.1. January 2005.

Nayar PKB , needs and problems of the aged, a case study of Kerala ICSSR 1992

Omran, Abdel R.. "The Epidemiologic Transition." Milbank Memorial Fund Quarterly. Vol. XLIX, Part I. pp. 509-538, 1971.

Palloni, A (2001) Living Arrangements of Older Persons, United Nations Population Bulletin, Special Issue Nos. 42/43, Department of Economic and Social Affairs, Population Division, New York.

Serow William, Economic and social implications of demographic patterns in handbook of ageing and the social sciences (ed Robert K Binstock and Linda K George, Academic Press 2001

State of Humanity. (Oxford: Basil Blackwell). pp. 51-60, 1995.

Tout K, Ageing in developing countries OUP 1993

- Verburgge, M. 1979. Marital Status and Health. *Journal of Marriage and the family*. Vol.41, No.2,pp 267-285.
- Wiggins, R., P. Higgs, M. Hyde and D. Blane. 2004. Lifecourse and Contextual Factors that influence quality of life in early old age. *Ageing and Society* 24: 693-708
- Wiseman RF , why older people move, *Research on ageing* ,1980
- World Bank (Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth, Washington, D.C.: Oxford, 1994
- Zick, C. D and K. R. Smith. 1991. Marital Transitions, Poverty, and Gender Differences in Mortality. *Journal of Marriage and the Family*. Vol. 53, No.2 (May 1991), 327-336