CHAPTER 1
DESIGN OF THE STUDY

1.1. Introduction

The global population has tripled to 6.9 billion in 2010 and projected to reach 9.1 billion in 2050, an increase of 2.2 billion in 40 years. This increase in population is distributed unevenly across the world. The proportion of population in developed countries has declined from 32.10 percent in 1950 to 17.75 percent in 2010. The share of population in less developed countries is increasing during the last 60 years and currently growing at a rate of 1.37 percent. By 2050, 86 percent of world population will be residing in developing countries with Asia and Africa alone constitutes around 79 percent of world population (Table 1.1). This disparity in population growth is due to changes in fertility and mortality rates between developed and developing countries.

Table 1.1
Global Demographic Trends

<table>
<thead>
<tr>
<th>Regions</th>
<th>Population in millions</th>
<th>Growth rate (2005-2010) in percentages</th>
<th>Total Fertility Rate (TFR)*</th>
<th>Life expectancy at birth (Years)*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1950</td>
<td>2011</td>
<td>2050</td>
<td></td>
</tr>
<tr>
<td>More developed countries</td>
<td>812</td>
<td>1241</td>
<td>1275</td>
<td>0.34</td>
</tr>
<tr>
<td>Less developed countries</td>
<td>1717</td>
<td>5746</td>
<td>7875</td>
<td>1.37</td>
</tr>
<tr>
<td>World</td>
<td>2529</td>
<td>6988</td>
<td>9150</td>
<td>1.18</td>
</tr>
<tr>
<td>Asia</td>
<td>1402</td>
<td>4212</td>
<td>5231</td>
<td>1.14</td>
</tr>
<tr>
<td>Africa</td>
<td>227</td>
<td>1056</td>
<td>1998</td>
<td>2.29</td>
</tr>
<tr>
<td>Oceania</td>
<td>12</td>
<td>36</td>
<td>51</td>
<td>1.31</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>167</td>
<td>594</td>
<td>729</td>
<td>1.12</td>
</tr>
<tr>
<td>North America</td>
<td>171</td>
<td>351</td>
<td>448</td>
<td>0.96</td>
</tr>
<tr>
<td>Europe</td>
<td>547</td>
<td>733</td>
<td>691</td>
<td>0.09</td>
</tr>
</tbody>
</table>


Recent trends in Total Fertility Rate (TFR) show that fertility started to decline in less developing countries also. Region wise analysis reveals that though there are wide disparities among regions, all regions except Africa were having a fertility rate slightly above or below replacement level. TFR in More Developed Countries (MDCs) is 1.7 children per women i.e. already below replacement level. But projections show that at the world level, there will be further decline in Total Fertility Rate to 2.02 children per woman from 2.5 children per woman at current level. High life expectancy of world population shows that mortality decline has started in almost all countries. There is considerable variation in life expectancy between MDCs, at 77 years and LDCs, at 67 years. All the regions have life expectancy above 70 years except African region where AIDS epidemic and infectious diseases like Malaria and tuberculosis has drastically lowered life expectancy. For the world, as a whole life expectancy is projected to rise to 75.5 years by 2050 and all regions will be having life expectancy above 65 years. Rapid demographic transitions caused by rising life expectancy and low fertility has led to change in the age composition of population. During 1950’s only three regions- Europe, North America and Oceania had more than 10 percent of elderly to total population.

Age structure of population in 2010 shows shift in favour of aged population. Among all regions except Africa, there is considerable reduction in child population. More than 20 percent of population in Europe and nearly 20 percent in North America and Oceania are aged. At present in Europe, the proportion of aged to total population is greater than the proportion of children. This clearly pictures a trend towards reshaping the age structure of population from younger to older groups. Concerns about ageing societies in developed countries arise not only because of increasing proportion of elderly but because of declining ratio of working population to aged population. Demographic forecasts indicate that striking changes occur in age structure of world’s population by 2050. For the world as a whole, the proportion of elderly to total population (22 percent) is expected to out number children (20 percent) by 2050. In developed countries, the proportion of elderly (33 percent) is expected to be more than
double that of children (15 percent). This trend is broadly experienced in all regions except Africa where children (27 percent) outnumber elderly (11 percent).

1.2. Global Ageing Trends

Ageing of population is one of the important issues faced by human societies in the present century. Population is supposed to be aged when the proportion of older persons increases with reduction in child (0-14 years) and working age population (15-59 years). At present, globally there are 759 million aged people and is expected to rise to two billion by the year 2050, an increase of about three times in just 40 years (Table 1.2). Though the proportion of old age population is highest in Europe and other industrialised countries, developing countries are having largest number of older persons. Currently, about 65 percent of older persons live in developing countries. By 2050 their proportion is expected to rise to 80 percent. Ageing of population in developing countries are more serious as reforms in these countries are not on pace to mitigate the effects of ageing.

<table>
<thead>
<tr>
<th>Regions</th>
<th>Aged population (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1950</td>
</tr>
<tr>
<td>More developed countries</td>
<td>95222</td>
</tr>
<tr>
<td>Less developed countries</td>
<td>109690</td>
</tr>
<tr>
<td>World</td>
<td>204913</td>
</tr>
<tr>
<td>Asia</td>
<td>94467</td>
</tr>
<tr>
<td>Africa</td>
<td>12061</td>
</tr>
<tr>
<td>Oceania</td>
<td>1422</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>9389</td>
</tr>
<tr>
<td>North America</td>
<td>21288</td>
</tr>
<tr>
<td>Europe</td>
<td>66285</td>
</tr>
</tbody>
</table>


In 1950, European region had 32.35 percent of world’s elderly population. At present, European region constitutes only 11 percent of world’s older persons,
and Asian region has around 55 percent of older persons in the world. While most of the demographers focused on ageing in European countries, ageing problems in Asian countries are often neglected. From 1975-2010, the aged population has increased more than two times in Asian and African regions with Asian region showing greater increase. This shows that the number of older persons is increasing rapidly in developing countries particularly in Asian region. By 2040 there will be older persons than children in Asian regions. This demographic shift generates an ageing crisis because government expenditure and social services have to adjust rapidly to keep up with the needs of ageing population. It is seen that by 2050 more than 40 percent of older persons in the world will live in two Asian countries-India and china alone. China’s population aged 60 or above in 2050 will be higher than USA’s total population and India’s aged population will exceed U.K’s total population. Contrary to the rich countries, developing countries are ageing rapidly before getting rich. Thus ageing in these countries has the risk of poverty among aged population. Pal and Palacious (2005) have observed high incidence of elderly poverty in India.

Table 1.3

Region wise Growth Rate of Aged Population and Median Age

<table>
<thead>
<tr>
<th>Regions</th>
<th>Percentage growth rate of aged population</th>
<th>Median Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60+</td>
<td>80+</td>
</tr>
<tr>
<td>More developed countries</td>
<td>1.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Less developed countries</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>World</td>
<td>2.6</td>
<td>4</td>
</tr>
<tr>
<td>Asia</td>
<td>2.9</td>
<td>4.6</td>
</tr>
<tr>
<td>Africa</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Oceania</td>
<td>3.2</td>
<td>3.3</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>3.3</td>
<td>4.5</td>
</tr>
<tr>
<td>North America</td>
<td>2.7</td>
<td>1.9</td>
</tr>
<tr>
<td>Europe</td>
<td>1.3</td>
<td>3.8</td>
</tr>
</tbody>
</table>


The older population is the fastest growing population in all regions. Globally, at present, the growth rate of elderly (2.6 percent per annum) is twice that of total population (1.18 percent per annum). It is found that population aged 80 and above is the fastest growing group in population with 4 percent growth rate annually. The growth rate of population aged 60 and above in 2009 is higher in developing countries (3 percent) than developed countries (1.9 percent).

Increase in the median age is also an indication of population ageing. At present, developed countries are having median age around 40 years. While the median age of developing countries shows that population is still young with half of the population below 25 years. The difference in median age between developed and developing countries is higher now (13.5 years) than it was in 1950 (7.5 years). This difference is expected to decline to 8.8 years in 2050. Projections on median age show that by 2050, populations are indeed ageing in most regions with Africa being an exemption.

Figure 1.1

Global Old age Dependency Ratio from 1950-2050

There is preponderance of women among older persons and their share increases with age which is usually referred to as feminisation of elderly. Globally, the sex ratio of population aged 60 or above is 83 males per 100 females. Since female mortality advantages continue with age, the sex ratio has declined to 58 per 100 females for 80+ populations. Sex-ratio at older ages is significantly lower in more developed regions than less developed regions. This gender imbalance has greater implications on social support and public policies.

There is significant change in the composition of dependency ratio. Globally the old age dependency ratio has increased from 8.5 in 1950 to 10.9 in 2000 and expected to increase further to 25.3 percent in 2050. The old age dependency ratio is high in MDCs as these countries are already facing the problem of low fertility. Though the dependency ratio is only 8.8 percent in developing countries, it is likely to increase in future. It is noticed that while old age dependency ratio of MDCs is projected to increase nearly two times during 2010-2050, the ratio of LDCs is projected to increase nearly three times. Increasing old age dependency ratio is a problem as there is no developed and comprehensive pension system in developing countries.

UNDP (2009) reports that population ageing is pervasive since it is affecting nearly all countries of the world. Although population ageing in different regions is progressing at different paces, significant proportion of aged population is expected in the coming decades which have profound social, political and economic implications. The demographic changes in favour of population ageing have also brought changes in family composition and kin networks. This change has increased the number of elderly who needs care and reduced the number of working adults available to support the elderly. Thus economic security, health, provision of care and support for aged population is the major issues faced by countries in the present century though the nature of problem differs between countries.

The focus of the present study is to assess the living arrangements and social security of the elderly. Large number of studies on these two dimensions is available from different countries, but in India, the materials are
scarce. Thus, below an attempt is made to review the available literature which will help to concretize the research problem and also to set the objectives.

1.3. Review of Literature

The present century studies are more concentrated on changing age structure and consequent ageing of population. Studies are conducted using data from primary and secondary sources. This part is divided under three sections-studies related to demographic transition, studies related to ageing and aged population and studies related to economic and social security of elderly. A brief review of some of the relevant studies is made in the following section.

1.3.1. Studies Relating to Demographic Transition

Bloom and Canning (2011) argued that economic growth does not automatically accelerate as fertility declines and share of working population increases. Growth depends on good governance, solid macro economic management, carefully designed trade policy, efficient infrastructure, well-functioning financial and labour markets and effective investment in health education and training. Analysing the demographic situation of India and China, they observed that India will benefit only by increasing access to quality education and work force training.

Bush (2004) point out from the transition of Mexico that transition takes place faster in developing countries than in developed countries. The study pointed out that if the “window of opportunity” period of Mexico in 2006-2028 is utilized effectively, it will promote savings and investment to cope with rapid population ageing.

Rajan and Aliyar (2004) argued that the demographic change in Kerala have serious socio-economic implications. There will be pressure on schools and colleges to concentrate more on quality of education rather than quantity. Major socio-economic problems in the state in the future will involve gainful employment for older working age population, maintenance of health and nutrition of the elderly and providing them with means of subsistence through social security and pension.
Rajan and James (not dated) have analysed the emerging trends due to demographic transition in Kerala. They pointed out that the state is having an advantage in the form of age structure changes but human resources were not managed properly till recently.

Navaneetham (2002) studied the nature and process of age structural transition in South and South East Asian countries and its impact on economic growth using time-series data. It is found that all the South and South East Asian countries had demographic bonus period though their timings and duration differ. His study pointed out that the South Asian countries benefited little from the age structural transition. To increase economic growth, he argued that South Asian countries had to improve quality and coverage of primary education while the South East Asian countries can adopt economic policies focusing on saving and investment.

Tharakan and Navaneetham (1999) attempted to project population trends for Kerala under three variants (high, medium and low). On the basis of projections they pointed out an increase in school age population from 2001 to 2006, even though it declines after that. They observed that the state can fully realize the benefits of fertility decline after 2011. Further they stress the need for monitoring decelerating birth rate and reorienting public investment.

### 1.3.2. Studies Relating to Ageing and Aged Population

Yount, Kathryn.M. et al (2008) analysed the effect of social changes on living arrangements of elderly in Egypt. They used data from District Health Survey (DHS) for the gender wise comparison of socio-economic and demographic needs of elderly during 1988-2000. They argued that women’s investments in kin-keeping throughout their life course may enhance their ability to access co residential support in later life. They observed that propensities to live alone rose among the oldest and most economically vulnerable men than older women.

Verma(2008) attempts to explore the differences in the quality of life among working and non working elderly in rural and urban areas. The study
results infer statistically significant differences in quality of life among rural and urban elderly. The quality of life scale shows urban elderly experience better quality of life. High physical safety and security, home environment, financial resources, health and availability of quality of social care are the factors contributing to this trend. He also observed that there are no significant differences between working and non-working elderly in the study area.

Haan and Thomas perks (2008) examined the factors that lead to a change in housing tenure status among older Canadians. The study finds that individuals are more likely to move out of house ownership due to changes in social support characteristics than due to changes in economic and health characteristics.

Recognising that older women are having low subjective and psychological well being, Lee and Alfred De Maris (2007) examined the association between gender and depression after widowhood. The study was based on National Survey of Families and Households data from 1160 respondents aged 55 and above. It is found that widowhood appears to be more depressing experience for men than for women. Analyzing the effect of time on widowhood, the study pointed out that those widowed longer will be less depressed and adjust to their status and situation.

Rajan (2007) assessed the ageing scenario of India and analysed the health status of elderly. He pointed out that self reported health status of the elderly shows better health. Though the proportion of elderly who had been hospitalized was lower he opined that this cannot be taken into account as most of the elderly in poor households are not hospitalized till a crisis situation arises. Poverty and incidence of widowhood are the major determinants contributing to the vulnerability of aged.

Rahman et al (2007) conducted a study on living arrangements and health status of rural elderly population in Bangladesh. The study reveals that about 63 percent of elderly are illiterate and 80 percent of the samples are having more than one disease. They used multivariate techniques to identify the factors influencing living arrangements of elderly populations. Their analysis shows that
respondent’s work status and family income have significant effect on living arrangement of elderly. He suggested that the government should give economic security to elderly in the form of medical allowances, recreational facility etc.

Nasren (2007) analysed the economic situation of elderly in the context of changing socio-economic scenario. She selected 300 elderly coming from low socio economic background in Delhi. The survey results indicate that elderly experience financial difficulty as two-third of them was not involved in any kind of economic activity. She points out that religion plays an important role to overcome emotional upset caused by financial difficulty.

In the context of growing number of elderly in India, Patel and Smriti Krishna (2007) stressed the need to recognize elderly abuse in the society. They explained several types of abuse that an elderly faced in the society. They emphasize the need for state intervention and involvement of family in solving the problem and pointed out psychological and emotional problems of family members, economic conditions and living arrangements have an impact on abuse of elderly.

Mishra (2007) assessed the role and status of elderly from the ancient period to post independence period on the basis of their ownership of property and control over children. He found that up to the first half of 20th century, elderly enjoyed high status in family as well as in society by having control over family property. He also pointed out that there are no substantial evidences of their relatively low position during post independence period though factors like industrialization, urbanization, migration and modernization have made the condition of elderly more vulnerable. Further he noticed that the position of elderly in the post independence India are similar to position of British and American elderly in the 19th and early part of 20th century.

Prasad and Indira Rani (2007) assessed the burden and satisfaction experienced by the care-givers of elderly. On the basis of a study conducted in Visakhaptnam district, they pointed out that the care-giver’s burden and satisfaction is associated with sex, age of care-giver and family income. Major
care-givers of elderly are wives. The study observed that lower family income reduces care-giver’s satisfaction significantly.

Some economists made an attempt to examine whether there are any substantial differences in the problems faced by the elderly women in developed and developing countries. For instance, Rathi and Radhika (2006) made a comparative study of the problems faced by elderly women in India and Japan. While examining the health problems of elderly they found that compared to India the incidence of various health problems is less among Japanese elderly. Improved life style, high literacy level among elderly, food habits, awareness on health care, better hygiene conditions and medical facilities are the reasons for this. Further they also opined that lack of these facilities along with non-availability of medical schemes for elderly by government contribute to poor health of elderly in India. They suggested several measures to be followed by the government to reduce the problems of elderly.

A study by Patel and Rajendran (2006) made an attempt to analyse the emergence of e-culture and its impact on the life style of elderly people. They analysed the relationship of e-culture with loneliness and life satisfaction among the elderly in Pondicherry. In their study increased use of electronic items has been conceptualized as e-culture. The study results show that elderly with high e-culture finds it easy to adjust to the e-environment and experience more life satisfaction. Further it is found that loneliness analysed using UCLA Loneliness Scale (University of California at Los Angles) developed by Russell is inversely related to e-culture.

Devi and Tamlarasasi Murugesan (2006) analysed the life style pattern of elderly women in the changing scenario. They collected data from 300 elderly from paid and unpaid old age homes. They point out those elderly women in the old age homes do not have any one to take care and are facing nutritional deficiency. They stressed the need to empower elderly socially and economically as much of their misery are due to their powerless, lack of financial assets and regular income.
Rajan (2006) analysed the pattern of living arrangements among Indian elderly. The results show gender-wise differences in living arrangements with more female living alone at old age. Further, the study results reinforce the notion that family provides strong support for the elderly. The author urged the need to frame policies for restoring familial care and provision of social security to the vulnerable poor.

Radkar and Aarti (2006) examined the living condition of elderly in rural and urban India using National Family Health Survey (NFHS) II data. The study point out that living standard of the elderly differs according to their residence area. Concerns were raised about higher proportion of widows than widower in the country. The report found that unmarried and widowed women have higher probability of living in poverty than married women. This indicates the need to address the social, health and psychological needs of older people.

On the basis of NSS data Pal (2006) examined the nature of co-residency arrangements of elderly in rural India. Services offered by elderly parents have a significant role in determining co-residence. If the elderly persons have wealth and participate in household chores, the probability of co-residence is 78 percent. Estimates raised concerns about the lower co-residence probability for disadvantage elderly who lack health, wealth or both in the society.

On the basis of NFHS II and Sample Registration System (SRS) data, Rajan (2006) analysed the health situation and living arrangements of elderly in India. Analyzing the gender composition of elderly in selected variables, he concluded that women are more vulnerable than male in terms of living arrangements, health etc. Analyzing the pattern of living arrangements, the study reports that elderly in India still enjoys the informal support provided by the family. Further he emphasized the need to design policies and programmes for women and establishment of specific geriatric wards in public sector.

Dhillon and Shyodan singh (2005) attempt to analyse the factors affecting health and well being of retirees and whether there are gender differences. They reviewed several studies and observed that the wellbeing of retiree is mainly related to financial security and health of the retiree. They point
out that even though there exist gender differences in the elderly’s health status, the study concludes that retirement does not affect women as badly as men in India.

Matta et al (2005) assessed the social problems of elderly. They surveyed 200 patients with above 60 years from Delhi. The respondents listed loneliness, poverty, financial dependence and lack of social contacts as the major problems experienced by them. They stressed the need to create awareness about the problems of elderly and suggested that non-government organizations can offer help in identifying elderly’s problems.

Goswami et al (2005) studied about the health seeking behavior of the aged. The study was conducted in Faridabad district in Haryana. The study found that availability of health facilities has a significant influence in seeking treatment, while variables like education, socio-economic status and age have no impact on seeking treatment. The respondents reported that non-availability of escort, non-affordability, carelessness, and distance from health facility and fatalistic attitude as the reasons for not seeking treatment. The study highlights the need to provide health appliances and facility at affordable rate to elderly.

Johnson et al (2005) pointed the need to promote health ageing in India. They identified active ageing as a solution to growing challenges of society. They call for an interdisciplinary approach for the promotion and development of programmes and policies at global, national and local levels.

In the ongoing process of urbanization, modernization and rise of individualism Devi (2005) addressed the challenges and issues of informal care giving. On the basis of this, she stressed the need to design programmes and strategies to improve the quality of life of elderly. She opined that formal care if well organized provides for independence, participation, care, dignity and self fulfillment.

Siddhisena (2005) attempted to analyse the social and economic implications of the aged population in Sri Lanka. The study indicates that women are more vulnerable to chronic illness and disabilities than men. Further he reports
that widows are more vulnerable to poverty than older men because of fewer old age social security benefits for them. The paper stressed the need for a viable social security system for women to meet their health and other needs. The study also noticed that aged in Sri Lanka prefers to live alone. Majority claimed that social security benefits provided to them is inadequate to cover expenditure for health and day-to-day living especially during the period of inflation.

Farooq et al (2005) studies the adjustment problems faced by elderly migrants in urban Pakistan. They observed that 70 percent of the elderly have to face the problem of adjustment with respect to loneliness, income, health care, noise and pollutions. It is also noted that children have no resources to spare for aged after they provide for their own children.

Rani (2004) assessed the health problems faced by elderly. Her study was conducted in Thiruvananthapuram district. It is observed that financial stability of the elderly persons did influence consultation on important household matters and their status in the household. The respondents who are still working or have some income expressed high satisfaction. She thus argued that elderly people in the lower socio economic stratum should be provided with adequate financial support by way of social security schemes. Her study also point out an association between prevalence of ailments and variables like education level, income, living with spouse etc.

Rajan and Sarchandraraj (2004) made an attempt to analyse the problems faced by elderly in old age homes in Pondicherry. The study confirms that children are the major supporter of elderly and elderly expressed separation of children as the major setback in life. They pointed out that along with financial problems, majority of the inmates expressed isolation and depression. They suggested that status of elderly can be improved by generating adequate employment opportunities and providing them with special old age pension to cover their financial requirements.

Anand (2004) observed ageing as an irreversible biological phenomenon, and aged can be used as a resource contributing to society’s welfare. She highlighted the importance of active ageing and suggested several measures to
manage the stress in elderly’s life. She identified one’s outlook, lifestyle, ability to anticipate and plan for change have positive influence in stress faced by elderly.

Sarala and Kusuma (2003) made an attempt to examine various dimensions, causes and consequences of abuse of elderly. They suggested several measures to prevent abuse at both family and institutional settings. They call for a multi-pronged approach involving efforts from government, non-government community, media and individuals for the prevention of elder abuse.

Mallick (2003) made an attempt to call forth the attention of policymakers into the case of elderly widows. She presented certain case studies narrating the physical and psychological neglect and financial exploitation faced by elderly widows in India. It is the differences in interests rather than that values create an intergenerational rift between the old and young. To overcome this she suggested several measures to reduce mistreatment and need for intervention to empower them.

A study by Rajan and Sanjay Kumar (2003) assessed the pattern of living arrangements among the elderly in India. The study was based on data from the NFHS. The results show that family is still taking care of the elderly in a big way. Economic security of the elderly emerges as a major issue in the absence of co-residence with children. The study stressed the need for the provision of social security to the elderly in the wake of modernisation.

Butterfill (2003) examined the dependency status of elderly people in Indonesia and the role played by them in their families. The study found that elderly are making significant contributions especially economic contributions to family but their generosity did not bring forth proportionate support from children. Spending of accumulated wealth by elderly for children constrained their welfare and security. The study findings suggest that by providing employment opportunities especially in the traditional sectors can ensure economic independence at old age.

Yi et al (2003) analysed the gender differences in demographic and socio-economic status, activities of daily living, self rated health and life satisfaction
among the oldest old in China. They observed that elderly women are more likely
to be widowed or economically dependent and thus more likely to live with their
children. They felt that women are seriously disadvantaged in Activities of Daily
Living (ADL), Physical performance and self reported health.

Gupta and Sankar (2003) identified the determinants of health status
of elderly using multivariate analysis. Among the selected socio-economic
variables living arrangements of elderly is chosen as an important determinant of
health status. The analysis pointed out that those living with spouse have a better
chance of warding off disability than those without their spouses. They stressed
the need to extend assistance to the elderly using living arrangements and
economic conditions as target variables.

Stephenson and Grant Scobie (2002) assessed the economic
implications of population ageing on labour and capital market. They found out
that high level long term unemployment among elderly is not due to
discrimination but because of marketable skills. Shortage of labour in future can
be solved by conducting training programmes and adjust towards the needs of
older employees. He suggested that the impact of population ageing on
government spending and capital market deserves future study.

Zaidi and Klaas De Vos (2002) made an empirical study of the
income mobility of older people in Britain and the Netherlands. They used
longitudinal data from the British Household panel Survey (BHPS) and the Dutch
Socio-Economic Panel (SEP) for the period 1991 to 1997. They analysed the
impact of age, gender, marital status and living arrangements on the income of
elderly people in two countries. Better economic status and additional income in two
countries have improved the relative status of elderly. The study also examined the
relationship between income mobility and income composition and found that
stable income and a high share of state benefits is associated with downward
income mobility.

Rather than focusing on the support received by older individuals,
Ostir et al (2002) investigated the satisfaction level of elderly on the basis of the
support they provided to family, friends and community. The study was conducted
among 1002 disabled women aged 65 or older. Their study pointed out that despite their functional disability, aged were satisfied with the support they give to others and are having better health than those with less satisfaction. The results suggest that person’s level of satisfaction with the support he gives to others may be an important predictor of future health.

While analyzing the socio-economic and health characteristic of oldest old in China, Yi et al (2002) raised concerns about elderly. The study reveals that compared to urban oldest old less education and limited pension support made the position of rural oldest old more vulnerable. They point out that the females oldest old are more disadvantaged, as they are economically more dependent and are less likely to use long-term care facilities. They stressed the need for old age insurance and service programme for the older women and men.

Discussing about the post retirement life of individuals in Kerala, Usha John (2000) examined the variables influencing post retirement adjustment. An empirical study was also conducted at Trivandrum, which pointed out a significant association between post retirement adjustment and individual’s age, religion, income, occupation, number of dependents and duration after retirement. Further no gender differences were noticed in this pattern. Regarding the factor influencing post retirement adjustment, she identified adjustment as an end result of combination of factors like income, status, occupation and cultural background.

Van Willigen (2000) discussed the issues of ageing in India and America. He felt that though joint family is the most appropriate situation for elderly to grow old, people in nuclear families has more ties and larger social network. He pointed out that India will nearly face the type of social circumstances experienced by the older people in industrialised countries.

Patel and Rajendran (2000) attempted to study the relationship between e-culture with loneliness and life satisfaction among 120 elderly in Pondicherry. The study found that increased use of electronic products by elderly individuals leads to low level of loneliness and thereby experience more life satisfaction. High e-culture among the elderly makes them feel part of a social network or be a replacement for friends.
While examining the residency decision of elderly, Indonesians Cameron (2000) highlighted the impact of children’s earning capacity. She used nested logit framework for the analysis. Estimates shows that though, higher children’s earnings will tend the elderly to live alone, it cannot be inferred that this increase would cause a large movement away from the traditional family structure. Further the results reveal a negative correlation between earning capacity and probability of living alone, though it is not a significant determinant of co-residency.

Analysing the Work Participation Rate (WPR) in India, Radha Devi point out gender differences with high work participation rate among older women and over concentration of older persons in agricultural activities. She pointed out that though WPR is very high, older women form only a small fraction of total workers and their withdrawal from labour market is not likely to affect national production of goods and services adversely, since the country is having large number of unemployed working age population.

While analyzing the gender differentials in ageing Gulati and Rajan(1999) point out certain contradictions in the demographic features of India and Kerala. They observed that contrary to India, Kerala is having high female life expectancy which generates differential gender pattern of ageing. The authors raised concern about the overwhelming presence of women at the old age in the state and higher incidence of widowhood among them. Further they point out that high life expectancy will raise the demand for providing adequate support and care for elderly in the state.

Mohanty (1998) examined the problems faced by elderly within the family due to loss of occupation, income, emotional support and satisfaction. He points out that sons do not provide adequate security to elderly as expected. He noticed that elderly with adequate savings and financial background are able to overcome various socio-psychological problems and to adjust to retired life. He offers suggestions like an increase in the present pension rates, reemployment of elderly and extension of medical reimbursement facilities to the retired persons.
Moore and Donald (1997) pointed out a steady and consistent increase in the support as age increases. On the basis of data from Health and Activity Limitation Survey (HALS) and Survey on Ageing and Independence (SAI) they found that elderly in Canada has the tendency to relocate closer to family and move further away from the social network of friends. Evidences suggest that support movers tend to accumulate in small urban centres and in regions with slower economic growth.

Mahadevan et al (1992) analysed the demographic and social implications of elderly in India using census data. He pointed out that aged in India is neglected in the changing context of family structure, values and adoption of western ways of life. They call forth the need to provide employment opportunities, health services, and tax concessions for children who have elderly dependents and provision of welfare services especially to elderly widows.

National Research Council (1990) stressed the need for research in the area of human factors and ageing to enhance the quality of life and productivity of aged persons. The report identifies human factors associated with ageing under different tasks namely activities related to work place, home, transportation and leisure. The report also raised concern about the increasing trend of older people living below poverty line and greater number of older women living alone.

Wolf et al (1990) using national sample data presented a model analyzing the effect of non-cultural factors on living arrangements of Canada’s unmarried older women. Their analysis confirmed the significance of income and physical ability of the person in choosing living arrangements. The survey findings show that women with no living children and high income are more likely to live alone.

Wolf and Beth. J. Seldo (1988) studied the living arrangements of older unmarried women. The study found that daughters and unmarried children are more likely to live with aged mother than sons and married child. Income, age, disability status are the major determinants of household composition of older women. The results also stressed the need to reconsider the social differences in the living arrangements of elderly.
Wister and Thomas .K. Burch (1983) examined the determinants of living arrangements among elderly women in Canada. Using 1971 census data they made an attempt to assess demographic, social and economic effects on the probability of living alone. An estimate suggests greater influence of social factors in determining the household status of older woman. Women with higher level of education and income prefer to live alone than with children. The regression results show that interaction between fertility and income made significant contributions to the probability of women to live alone. Further the tendency of women to live alone become low, when the fertility is high without considering the level of income.

Petha (1982) examined the issues related to ageing. Along with population projections, projections concerning the requirements of these groups are needed for future planning and investment. Another issue in this context is breaking down of joint family and the problem of survival faced by the elderly. He advocated that an interdisciplinary approach involving demographic, economic, medical and socio-cultural aspects is needed to deal with specific problems of ageing.

Discussing about the implications of aging in some developed countries Fried Lander and Ruth (1980) argue that effect of aging on economic burden will be different in fewer than two cases. If aging occurs due to increased longevity, per-capita consumption will decline stressing the need for inter-generational transfers. Even though aging due to declining fertility is associated with a net reduction in economic burden it does not lead to reduction in consumption.

1.3.3. Studies Relating to Economic and Social Security of Aged Population

Case and Menendez (2007) analysed whether the presence of pensioner is associated with positive outcomes within the households. The survey results present positive pictures with grand children especially girls are more enrolled in schools, if they are living with pensioners. It is also noted that pensioners have greater say in household functioning than non-pensioners.
Blake and Les Mayhew (2006) analysed the sustainability of pension scheme in U.K in the context of ageing of population. They inferred that a combination of productivity growth, improvement in activity rates among older people including rising the retirement age will make the pension system viable up to 2025 but will not eliminate these pressures in the long run.

Meena Gopal (2006) discussed the gender implications of various policies and schemes of assistance for older people. She examined the problems in the implementation of social security measures in India. Low tax base along with persistent tax evasion, inadequate government budget are some of the major problems mentioned in the study. Her study made a comparison of policies and programmes for elderly women in five states and point out reluctance on the part of the state and national government to address the concern of elderly women.

Sekhar (2005) analysed the socio-economic dimensions of aged and social security measures required to safeguard them. The study was based on secondary data. As per the survey, lack of social safety measures and persisting poverty levels forced even the older persons to work. The study reveals that half of the elderly females in the rural and urban areas had no financial assets which emphasise the need for safety net measures and social protection schemes. He also emphasised the need for the government to formulate various policies for the welfare of senior citizens.

An empirical study was conducted by Chakrawarty (2004) about the utilization of potentials of senior citizens. She took a sample of 250 retired persons from Calcutta. The study found social usefulness and physical fitness as the most important factors for engaging in post retirement economic activity.

Subramanya (2003) observed that though there are several schemes for providing old age and survivor’s benefits in India, their coverage is small. He suggested measures to minimize the cost of social security like raising the retirement age, fixing social security pension at flat rates to ensure basic income to the individuals and rationalization of the existing arrangements to make cost effective.
Haveman et al (2003) examined the economic status of retired workers and effectiveness of Social security income in reducing poverty. They point out that age, education level; marital status and gender have significant effect in determining the economic status of elderly. Early retirees, unmarried women and widows have greater probability of becoming poor. The study concludes that social security played an important role in sustaining economic status of the families, but the effectiveness of safety net seems to be less strong for the disadvantaged sections especially women.

Recognising that ageing poses new challenges for both the world of work and social transfer systems, International Labour Organisation (ILO) report (2002) highlights the role of employment and social protection as the sources of inclusion. The report said that industrialized countries are facing serious concerns about the viability of social security systems. The paper stressed the need to develop social security system responding to the changing family structure and life style and thus guarantee a secure and respectful old age.

Ghai (2002) discussed the central features of different approaches in providing social security. He points out that the social security arrangements in the transition countries like Czech Republic, Poland, Slovenia etc exhibit significant diversity with regard to financial and institutional mechanism and coverage. While the communist countries concentrate on the provision of comprehensive, universal and egalitarian social security benefits. Analysing the social security from different angles, he points out that the real problem is not scarcity of resources but political marginalization of destitute and lack of administrative and technical capacity on the part of government in the process of programme formulation and implementation.

While examining the role of global economy in financing the aged in Singapore, Asher (2002) found out that pension fund investments are under-utilized in the country. He stressed the need for global diversification of pension funds in future to generate income necessary to fund these schemes. Further he also stressed an increase in government budgetary allocation as well as total national expenditure devoted to social security and health care of elderly.
Hardt et al (2002) analysed the effect of social security benefits on living arrangements of elderly. Their study found that a reduction in social security benefit has significantly altered the living arrangements of elderly. The study findings suggest that living arrangements are so income sensitive particularly for widows and divorcees implying that privacy is a valued good. Regarding welfare implications of shifting living arrangements, the survey results indicate that reduced benefits will lead to a reduction in welfare as the elderly were forced to live with others.

Audinarayana (2001) made an empirical investigation into the factors affecting the work participation of elderly. On the basis of micro level data from Tamilnadu, he identifies economic necessity as the major factor influencing the work participation rate of elderly. Among the selected variables, good health status, educational attainment beyond primary school, co-residence of unmarried dependent children have positive effects on the work participation rate of elderly. Further, residences in urban areas are found to be favourable for the work participation of elderly than in rural areas. He emphasised the need to increase old age pension to a reasonable level and to implement various schemes to encourage savings among the labour force for their old age.

Rajan (2001) analysed the effectiveness of National Social Assistance Scheme and its components. The analysis points out that only a meagre amount is allotted by Government of India for National Old age Pension Scheme and Annapurna Scheme. Identifying the beneficiaries is the major challenge faced by government, followed by political pressure to enrol new beneficiaries or same person receiving assistance. He stressed the need to revamp the social assistance schemes.

Alam and Piush Antony (2001) evaluated measures for the aged in India. They found that the current social security measures have hardly been able to meet the growing problems of old age poverty in the country. Their study results indicate a rising trend in old age dependencies and faster growth of the elderly population in relation to labour force. They analysed the health problems
faced by elderly population and emphasised the need to expand health insurance mechanism in the country to cover the low-income elderly household.

Katsumata (2000) has examined the socio-economic consequences of the declining working age population in Japan. He cautioned that in future the country face shortage of labour which is a matter of concern. The paper also pointed out that most of the social security schemes in the country are out dated and it should be reformed according to present family structures and social conditions.

Prasad and Beena (1999) analysed the impact of social security or pension schemes on elderly in Karakulum. They felt a large presence of female members in social security schemes. Majority of the females do not have autonomy in spending also.

James (1999) examined the issues that policy maker should consider in the provision of security for the aged. He stressed the need to provide social assistance to the uninsured. He pointed out that generous social assistance should be at the cost of contributory system i.e. by discouraging people’s participation and thus making the system less sustainable. He observed that the recent pension reforms having tighter links between benefits and contributions are moving in right direction which must be accompanied by well targeted social assistance programmes.

Supan (1998) analysed the reasons for decline in old age labour participation in Europe using econometric models. He took Germany as an example since the country is having most generous retirement system in the world. It is pointed out that workers responded positively to the economic incentives to retire earlier which have strong policy implications in the long run. He argued that this has aggravated the imbalance between the number of workers and pensioners in times of population aging.

A cross national analysis (Clark and Richard Anker, 1993) of labour force participation among elderly point out that more social security system tends to lower their participation rate. Their study examines the impact of economic and
gender differences on the labour supply decisions of older persons. It is found that marital status has a significant effect on the labour force participation of women with older widows having higher work participation rate. Region wise analysis indicates a general decline in the labour force participation rate of older men in conjunction with economic development. It is also observed that work participation rate of elderly is lower in high income areas. Estimates show that higher income per-capita, increased urbanization and institution of social security systems as the factors contributing to decline in participation rate of elderly.

Holden et al (1988) analysed changes in the hazard of entering poverty after retirement and spouse’s death. They used longitudinal panel data for the analysis. The analysis concludes that the marginal risk of becoming poor is higher in the first period of widowhood and becomes lower for couples in the years after retirement and widowhood.

Using a life-cycle model Feldstein (1974) analysed the impact of social security on individual’s decision about retirement and saving. The study indicates that social security depresses personal saving by 30-50 percent. Though social security has increased the frequency of retirement and he analysed its impact on income distribution. He pointed out that though social security benefits led to reduction in labour supply and capital stock, the net effect of these changes has been to raise the rate of profit and lower the wage rate.

On the basis of above reviews it is understood that there has been a change in the status of elderly in family setting in recent years. In Kerala, families are transforming from a joint to nuclear set up which have significant impact on the living arrangement and caring of elderly. Thus a study about their pattern of living arrangement acquires significance in the present context. So far no serious studies have been conducted in Kerala about the pattern of living arrangement of elderly at micro-level. Further, detailed study about pensioners and social security beneficiaries are scarce. While most of the ageing studies are concentrated on European countries, the problems of aged population in developing countries are also often neglected by researchers. Hence the study made an attempt to analyse these issues from a micro-level perspective.
1.4. Significance of the Study

India has the second largest number of elderly in the world, although their proportion is 7.5 percent of the total population. India’s elderly population has increased from 25 million in 1961 to 76 million in 2001 (Census of India, various years). Their size is expected to increase to 179 million in 2031 and further to 301 million in 2051. According to the expert committee on population projections, the decadal percent increase in the elderly population for the period 1991-2001 is 38.5 percent, more than double the rate of increase in general population (17.77 percent). The challenges faced by elderly in the developing countries like India are more serious. After the reform period, the competitive pressure arising from globalisation has slowly marginalised the old age. Absence of regular income, savings and assets made them more vulnerable to economic shocks. Many persons continue to work even in old age. Along with this, in recent years Indian society is experiencing a gradual but definite change in the traditional and conventional family set up. There has been an increase in the nuclear families in rural and urban areas (Niranjan, et al 1998) These changes have notable implications on the status and support of elderly in the family. This calls for a study on the existing structure of social support and the nature and extent of family relations at micro-level.

The gradual collapse of traditional old age support mechanism and the rise in elderly population highlighted the need for appropriate formal channels (Goswami, 2001). But the country lacks a proper social security system for them. The Social security provided by the government cover only 10 percent of the workers in the organised sector. Less privileged are the remaining 90 percent of the workers in the unorganised sector with little or no formal coverage. As a result, the workers in the unorganised sector who have not accumulated enough savings during their working period have more chance to reach below poverty line in their old age. In this context of declining family support, it becomes necessary for the state to ensure older person’s care.

Among the Indian states, Kerala had the highest proportion of elderly with 10.95 percent of its population in 2001. According to population
projection (Rajan and Zachariah, 1997) their proportion is expected to increase to 19 percent in 2021 and 35 percent in 2051. This necessitates high government spending on social security, health care and other welfare programme for aged. Kerala is known for its widespread and popular social security schemes especially for aged. At present the state is having four lakh pensioners and 12 lakh social security beneficiaries (Kerala Development Report, 2008). They constitute about half of the elderly (49 percent) in the state. Relatively early retirement age along with increasing longevity in the state has triggered problems for elderly employed in formal sector. Thus elderly required an extension of 15 or 20 years support from both family and government. Though the policy holders raised the problem of state’s affordability in providing social security benefits to the growing elderly population, how far these schemes are feasible, viable and efficient in providing support to the elderly is also a matter of concern. Thus there arises a need to analyse the care and security arrangements of elderly in both formal and informal setting.

1.5. Objectives of the Study

The main objectives of the study are

1. To examine the trends and pattern of demographic transition in Kerala and its implications for aged population
2. To examine the pattern of living arrangements of elderly population in Kerala and gender differences, if any, in this pattern
3. To examine the extent of pension and social security benefits reaching the elderly and its utilisation pattern
4. To assess the level of life satisfaction among elderly and its determinants.

1.6. Hypotheses

To give specific focus to the objectives, the following hypotheses are formulated

(1) Demographic, socio-economic and cultural factors have significant influence on the living arrangement of elderly in Kerala.
(2) There is significant association between living arrangement of elderly and family support.
(3) There are significant gender differences in the life satisfaction of elderly in Kerala.
(4) The social security net and well-being of elderly are weakly associated in Kerala.

1.7. Scope of the Study

Demographic transition itself is a vast area of study. There are several issues related to world’s population changes. Fertility started declining in different regions, even though the pace of decline varies. This has abated the debate of impact of population growth on economic development. Currently issues like impact of age-structure changes on economic growth, ageing of population received much closer attention of policy holders. In the present study, demographic transition is discussed only as a prelude to discuss the problem of aged and also indicate that the Kerala state is also going to experience the threats of aged population. But the canvas of the present study is limited to a detailed analysis of living arrangements of the elderly and also the social security measures for the elderly and its impact.

1.8. Data source and Methodology

The study is based on primary and secondary data. Secondary data are collected from Human Development Reports, Reports of Population division of Department of Economic and Social Affairs of UNDP, Census reports of various years, National Sample Survey Organisation Reports, National Family Health Survey, Economic Review of State Planning Board, Department of Economics and Statistics, for analysing the trends and pattern of demographic transition. Primary data for the study are collected from three districts in the state – Thiruvanthapuram, Pathanamthitta and Palakkad.

1.8.1. Sampling Procedure

The study is exclusively on elderly population. The concept of elderly itself is controversy. UNDP defined aged as those who are of age 65 or above. In India an elderly person is a person aged 60 or above. In the present study following the methodology in Census Reports, any individual aged 60 or above is
considered as elderly and the samples are drawn. Multi-stage sampling technique was adopted for the selection of samples. In the first stage, those districts with proportion of elderly to total population more than or a little less than, state’s average were selected. Since one of the main objectives of the study is to analyse the impact of economic and social security of elderly, the elderly were stratified into two - pensioners and social security beneficiaries. In the next stage, three districts- Thiruvanthapuram, Palakkad and Pathanamthitta were selected for the study. Thiruvanthapuram is having highest number of pensioners and social security beneficiaries in the state. From the northern region of the state, Palakkad district having highest number of elderly and also a large share of social security beneficiaries is selected. Pathanamthitta district is selected as it is having the higher proportion of ageing population in the state (14.62 percent). A pilot survey was conducted in the study area which included both pensioners and social security beneficiaries. On the basis of survey, necessary modifications were made on questionnaire.

The list of pensioners and social security beneficiaries were collected from district treasuries and panchayats. From the list sample was selected using random sampling technique. The total number of elderly covered was 330, a figure proportionate to aged population in the state. Those elderly who are having poor mental conditions, seriously ill and temporarily absent or interference made by children during questioning were excluded. Analysis is done for 313 questionnaires which are found to be complete in all respects. Out of the total sample of 313, care was given to include both males and females since one of our objectives is to examine gender differences in the living arrangements. At the same time a clear statistical criteria cannot be applied. Thus availability of the respondents was a major criteria used for choosing the sample. Hence the sample for the study constitutes 313 older persons with 144 social security beneficiaries and 169 pensioners. Since the study concentrates on elderly living in informal settings, the sample did not include institutionalised elderly even though some of them are receiving pensions or social security benefits. Direct interview method was adopted to collect information from older persons with the help of questionnaire.
1.8.2. Data Analysis

The collected data were analysed with the help of bi-variant and multivariate tables. A material well being index was constructed on the basis of indicators selected by UNDP which provides insight into standard of living of elderly. Index was constructed on the basis of the existence of eight items representing housing conditions and asset holdings. Existence of every item gives a score of five and a score of zero for non-existence. Quality of life of elderly was measured on the basis of 20 statements related to different aspects of life satisfaction at advanced age. A life satisfaction index was constructed on the basis of their response for these statements. The respondents were given five choices, like Likert type Scale (strongly disagree, disagree, no opinion, agree and strongly agree). Positive values (one and two) were given for the choice agree and strongly agree. Negatives values (-1 and -2) were given for the choice disagree and strongly disagree and a score of zero for no opinion. The scores on each sub scale summed and values thus obtained were rated into three levels of life satisfaction- low, medium and high. In order to reassure the claims, statistical and econometric techniques were also applied. Influence of socio-economic variables on living arrangement was calculated using Pearson’s chi square technique. Further, the relative contribution of socio-economic variables in determining living arrangements was calculated with logistic regression model, living arrangements act as binary variable. Odds ratio was computed. This analysis will to help to identify the major determinants influencing living arrangements. Similarly an attempt was made to identify the major determinants of life satisfaction. Life satisfaction is a composite variable and thus converted into indices for homogeneity. Eight variables were chosen. Many of these variables are dummies and thus take to extreme values 0 and 1 respectively representing absence and presence. Since there is large number of dummies, there is every chance that the influence of these dummies may slightly influence the statistical significance. But the trends will be more or less the same. To supplement the analysis, Varimal rotations were also tired. Varimal rotations are a simulation procedure to identify the cumulative influence. It is true that the performance and number of variables are positively associated.
1.9. Limitations of the Study

Just like any thesis preparation this work is also not free from limitations. The first and foremost limitation of the study is the nature of respondents. Since the respondents are aged persons, physiological and psychological weakness created difficulties in getting correct information from them. The likely reporting errors cannot be avoided in this study. The respondents either pensioners or social security beneficiaries were not clear about the amount they are getting or the procedure followed. Analysing the utilisation pattern of social security amount was difficult, since the amount is only nominal. The availability of secondary data was also a concern. Either the government departments or even the treasury do not have time-series data on these parameters (like gender and share of social security amount in government expenditure). In short collecting information was the biggest hurdle. In the case of secondary data, male-female details were not available for earlier census. Very detailed and microscopic details were included in the population census of India only from 1970 onwards.

1.10. Chapter Scheme

The study is presented in six chapters. The introductory chapter includes significance and objectives of the study, methodology adopted and literature review. The second chapter presents the theoretical framework of the study which covers demographic transition theories and ageing theories. The third chapter examines the trends and pattern of demographic transition in Kerala and its implications on aged population. Pattern of living arrangements of elderly in the state and its determinants is analysed in the fourth chapter. The second section of this chapter analyses the informal care and support received by elderly and their participation in indoor and outdoor and their involvement in decision-making activities. The fifth chapter assess the impact of economic and social security benefit on elderly’s well being and factors determining the life satisfaction of elderly. The sixth chapter gives with summary of findings, policy implications and suggestions.
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