CHAPTER 2
DEMOGRAPHIC PROFILE

Demographic profile of population of elderly is required for planning and development plans intended for welfare and rehabilitation There has been considerable increase in concern of elderly since past few years as they constitute a major area in the population The concern is more severe as their number is increasing at a very fast pace from last two census data Mainly two reasons are significantly responsible for this - (i) fall in birth rate and (ii) steady decline in mortality rate

India is in the process of a demographic transititon adding annually a sizeable number to elderly population The elderly population trends from 1951 to 2001 are shown in Table - 1.

TABLE - 1

ELDERLY POPULATION (60+) IN INDIA

	Population 60+ (in millions)		
YEAR	TOTAL	MALE	FEMALE
1951	19.61	9 67	9.94
1961	24.71	12 36	12.35
1971	32.70	16 87	15 83
1981	43 90	22.49	21.49
1991	55.30	28 23	27.07
2001	75.93	38.22	37.71

@ Projection

Source Sharma, S R Aging in India-Some facts brought out by census data Directorate of Census Operations, New Delhi 1993

The alarming situation is that the world's elderly population is increasing monthly by about one million persons. (Troisi, 1998) An interesting observation from United Nations Demographic Estimations states that in 1985, throughout the world there were 427 million persons aged 60 and over, constituting 8 83% of world's total population By the year 2025, these figures are projected to rise to 1,171 million, an increase of 174% In other words the elderly by the year 2025, will constitute 14.28% of world's population Coming to the trends in developing countries, in 1985, 241 million people (i.e. 56% of world's elderly) lived in developing countries and this population is futher projected to reach 61 5% by turn of century and 71 9% by year 2025.

The comparison between the developed and developing countries indicate that by year 2025, while the elderly population in developed countries is expected to increase by 77% over 1985 figures, the number of elderly persons living in developing countries will increase by almost 207% Here it is important to note that having the world's most populous countries, namely China and India, the Asian region accounted to about 48% of the world's elderly population (UN 1988)

TABLE - 2

PERCENTAGE OF POPULATION OF AGED IN 80 DEVELOPING COUNTRIES

1995 TO 2020

	1995			2020		
Country	Total population of all ages (millions)	Percent aged 60 & over	Percent aged 75 & over	Total population of all ages (millions)	Percent aged 60 & over	Percent aged 75 & over
Argentina	34 3	13 5	3 6	43 2	16 1	4.7
Bangladesh	128 1	4 8	0 7	210 2	6 9	1 1
Brazil	160 7	7 0	1 4	197.5	13 5	3 2
Cameroon	13 5	5 3	1 0	28 3	5.6	1 2
China	1203 1	9 3	1 8	1424 7	17 0	3 9
Colombia	36 2	6 7	1 4	49 3	13 8	3 2
Costa Rica	3 4	7 1	1 8	5 3	13 0	3 3
Cuba	10 9	12 6	4 1	12 3	20 4	6 8
Egypt	62 4	5 8	0 9	92 4	8.9	1 5
Ethiopia	56 0	4 4	4 4	114 4	4 5	0 8
Fiji	0 7	5 1	0 7	1 0	10 6	1 8
Ghana	17.8	4 7	0 8	35 9	5 1	0 9
India	936 5	6 4	1 1	1350 7	10 4	2 1
Indonesia	203 6	6 1	0 9	276 5	11 2	2 3
Iran	64 6	5 9	1 1	104 3	7 6	1 8
Jamaica	2 6	9 1	2 7	3 3	12 5	3 4
Kenya	28 8	3 7	0 6	44 2	4.8	1 1
South Korea	45 6	8 6	1 6	54 0	18 8	4 5
Mexico	94 0	6 4	1 6	136 1	11 2	3 1
Morocco	29 2	6 4	1 4	44 5	10 0	2 5
Nigeria	101 2	4 7	0 7	215 9	5 3	1 1

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Country	1995			2020		
	Total population of all ages (millions)	Percent aged 60 & over	Percent aged 75 & over	Total population of all ages (millions)	Percent aged 60 & over	Percent aged 75 & over
Pakistan	131 5	6 0	1 2	251 3	5 9	1 2
Peru	24 1	6 4	1 2	34 2	11 1	2 5
Philippines	73 3	5.6	1 1	116 0	8 8	1 8
Sri Lanka	18 3	8 7	2 0	22 9	16 4	4 1
Tanzania	28 7	4 4	0 9	48 5	4 3	1 0
Thailand	60 3	7 6	1 5	62 5	16 9	4 3
Uruguay	3 2	17 1	4 9	3 8	19 3	6 9
Venezuela	21 2	6 3	1 5	31 3	11 9	2 9
Zaire	44 1	4 2	0 7	92 9	3 9	0 8

Source U S Bureau of Census, International Programs Centers, International Data Base on Ageing

According to the demographic estimations the annual growth rate of aggregate elderly population in developing countries is about 3%. While describing these trends it is believed that each year in the mid - 1990's, the number of elderly in developing countries increases more than the size of total population of Zimbabwe A diversity in population ageing can be observed from above table. Some of developing countries are showing a remarkable growth of their older age groups (China, India, Sri Lanka, and Thailand), whereas in some countries (Bangladesh, Ethiopia and Zaire) the growth is an minimum level. These variations are due to high levels of fertility which slows the population ageing.

TABLE - 3

STATE - WISE DISTRIBUTION OF ELDERLY POPULATION

STATES	TOTAL		
	1961	1971	1981
Andhra Pradesh	6.2	6.4	6 7
Assam	4 3	4 7	*
Bihar	5.6	5 9	6.8
Gujarat	4 9	5.3	6.0
Haryana	*	5.8	6 3
Himachal Pradesh	7.4	7.2	7.5
Jammu & Kashmir	5.1	5.6	5.8
Karnataka	5 7	6.1	6.6
Kerala	5 8	6.2	7 5
Madhya Pradesh	5.2	5 8	6.6
Maharashtra	5 3	5.7	6 4
Manipur	5 6	6.1	5.9
Meghalaya	**	4 6	4.4
Nagaland	6.8	6.7	5.9
Orissa	5 7	6 0	6.4
Punjab	6.6	7.5	7.8
Rajasthan	5 1	5.5	6.0
Sikkim	4 9	3 3	4.4
Tamil Nadu	5.6	5.7	6.4
Tripura	5.4	6.6	7.1
Uttar Pradesh	6.3	6.7	6 8
West Bengal	5.0	5 3	5.6

UNION TERRITORIES

STATES	TOTAL		
	1961	1971	1981
Andaman and Nicobar Islands	2 8	2 6	2.9
Arunachal Pradesh	0 9	4 7	4 8
Chandigarh	***	3 7	4.0
Dadra & Nagar Haveli	4 0	4.1	4.0
Delhi	4.1	4.3	4.5
Goa, Daman & Diu	8 1	6.6	6.8
Lakshadeep	5 0	5.1	4.9
Mizoram	**	**	4 6
Pondicherry	6 9	6.3	6 7

* 1981 Census figure not available

** Part of Assam state

*** Part of Punjab

Although the proportion of elderly population in India as a whole constitutes 6 5 percent by 1981 and 6.1 and 5 7 in 1971 and 1961 respectively. But of course their distribution varies from state to state.

A look at the table shows that population is highest in Punjab (7.8). The lowest is seen in Meghalaya (4.4) and Sikkim (4.4)

Among Union Territories, Goa, Daman and Diu. and Pondicherry has largest population The lowest is seen in Andaman and Nicobar (2 9) One significant point to note is that there not been any major change or rise in elderly in 1961, 1971 and 1981 census

As per United Nations classification, Indian society would progress from a mature society (elderly population between 4 to 7% of total population) to an ageing society (elderly population more than 7% of total population) by the turn of the century By then the world is projected to inhabit 612 million elderly, which would be 9.8% of world population (U.N. 1991). In other words, by the year 2001, one out of every seven elderly persons would be from India

Coming to age-specific category, the elderly population in India is projected to grow at 37.3% more than double the growth rate of general population (16.8%). On segregating the elderly into "Young-Old" (60 to 74 years) and "Old-Old" (75 years plus), the young-old were growing at the rate of 4.7% and 5 3% in 1961 and 1981 respectively and are expected to grow at 5.6% by 2001 The corresponding figures for old-old are 1%, 1% and 1.2% (Biswas, 1994) Thus the young-old have been increasing at a much faster pace than the old-old in India

TABLE - 4

PERCENTAGE OF URBAN & RURAL ELDERLY

Category	Years			
	1950	1990	2000	2025
Rural	82.75	72 00	65 77	46.44
Urban	17 25	28.00	34 23	53.56

Source : World Demographic Estimates and Projections 1950-2025
United Nations, New York, 1988

With predominance agrarian characteristics about 75% of the population is living in rural India. According to 1991 Census about three-fourth of elderly are inhabiting rural areas and about 26% are in urban areas. However if we look at the estimated projections, from 1950 to 2025, the percentage of rural population is declining from 82.75% in 1950 to 46.44% in 2025 and for the same period the percentage of urban population increases from 17.25% to 53 56%. This indicate that in the coming decades, the percentage of elderly in urban areas may increase

WORK PARTICIPATION

Having an agrarian economy, in India, 1991 Census data shows that out of main workers in the 60 plus age group, 78% of the males and 84% of the females are in the agriculture sector, whereas 2% of the males and 3% of the females are engaged in household industry sector In 1991 majority of working people are found in rural areas than in urban areas In both these categories of occupations females outnumbered the males In organized sector like manufacturing and service including professional and technical jobs accounted for 20% of the male and 12% of the female elderly This could be due to less importance given to female education in Indian society As per 1991 census, 87% of elderly women are 59% of elderly men were illiterates

While making comparisons between the elderly work force (60 plus) and with the working age population (15 - 59 age group), Vijayanunni (1997) observed that the proportion of elderly in service sector has reduced by half - from 39% to 20% among males and by one-third from 18% to 12% among the females Correspondingly, the proportion of those employed in agriculture goes up substantially higher among the 60 plus age group - from 59% to 78% for males and from 78% to 84% for females.

Another significant observation is that in 1991 the female work participation rate has increased, whereas the male work participation rate has decreased Increasing rate of women's participation in the work force could be

the result of changing trends in value system of society Further, the migration of younger generation forced the elderly to seek their livelihood by participating in the work force

Older workers are spread over a large number of occupations. But a fairly large proportion are found in petty business coming under the category of merchants and shopkeepers. They are mainly self-employed. This is true for both males and females Another major occupation in which both males and females are found is spinning and weaving. A large chunk of older female workers are found as maid and other house keeping service worker category Looking at the type of work it appears that almost all of them are low paid and low status job

Another observation is that some occupational groups are sex biased in their importance as measured by older worker absorption For example, even though very few in actual number, physicians and surgeons are found to be mostly occupations favouring males Similar is the case of risky and heavy jobs like protective service, fishing etc. or occupations which deal mostly and directly with males like barbers and butchers

Occupations like nursing and other medical technicians, cooks, waiters, maids and other related house-keeping workers, sweepers, cleaners, tobacco preparers and product makers are found to be more feminine in both rural and

urban area laundry, dry-cleaning, glass-formation, pottery etc employ more older women than older man

In this context it should also be mentioned that in India a large number of persons in the working age group are unemployed. If older persons had refrained from entering the labour market, these job opportunities would have normally gone to the unemployed persons of the younger generations, and to some extent help to solve the prevailing unemployment problem

Older persons who have made their share of contribution to both the family and the economy in their younger days deserve to have some rest and peace at their old age Denying them their well-earned leisure is equal to social crime They need more rest and content than work participation after 60 years or above

LIFE EXPECTANCY AT BIRTH

The life expectancy at birth, the crude birth rate and death rate are the major indicators used in determining the population ageing In general the aggregate average life expectancy at birth in developing countries is aproximately 61 years, compared with an average of 74 years in developed world In India the life expectancy is steadily increasing and according to 1991 Census, for males it is 60.1 years and for females 59.8 years This is gradually getting closer to that of developed world (for example · 65 years in USA in 1990).

TABLE - 5

LIFE EXPECTANCY AT BIRTH (PROJECTIONS)

GENDER	YEARS			
	1950-1955	1990-1995	2000-2005	2020-2025
Male	39 40	60 10	64 40	69 60
Female	38.00	60 70	65 90	73 60

The projections of above table indicate that the year 2025, the average life expectancy of male will be 69 6 years and 73 60 years for females An increasing observation is that women are experiencing more rapid gains in life expectancy at birth than men In India, while a man having, in 1990-95 an expectation of life at birth of 60 10 years is projected to gain an average 9.5 years by 2020-2025, reaching 69 9 years A woman is estimated to have, in 1990-95, a 60.70 years expectancy of life at birth she will gain an average of 12 5 years by 2020-2025 reaching 73 6 years This trend lowers the sex ratios

for elderly population on one hand, and on the other hand loss of social support, greater dependency and prolonged widowhood among elderly women.

TABLE - 6

CRUDE BIRTH, DEATH & INFANT MORTALITY (PROJECTIONS)

	Years			
	1950-55	1990-95	2000-2005	2020-2025
A Crude Birth Rates (No of births per 1000 persons)	44 10	25.90	20.30	14 80
B Crude Death Rates (No of deaths per 1000 persons)	25 10	9.80	8 10	7.70
C Infant Mortality (per 1000 births)	190	88	67	35

Source World Demographic Estimates and Projections, 1950-2025, United Nations, New York, 1988

Above table shows that the crude birth rates are declining (from 44.1 in 1950 to 14.8 in 2025) and at the same time the crude death rates are also showing declining trends (from 25 0 in 1950 to 7 7 in 2025). These two are the major determinants of population ageing. Changes in the crude birth rate will not only affect the living standards of the elderly themselves. In fact, the decline in the number of potential caregivers This particular trend leads to the social security problem for the elderly.

OLD AGE DEPENDENCY RATIOS

The aged in the Indian society have always constituted problems at some levels but it is only recently that they have begun to represent a major social problem What make aged and ageing a social problem is their `dependence' on younger generation The dependence is of any kind, be it financial physical, psychological or social Old age dependency ratio is defined as the number of persons aged 60+ per 100 persons in the age group 15-59

From the life cycle perspective there are two significant stages in which the culture more often accepts dependency needs, at the beginning and at the end It is, therefore, expected that the present working generation must support the preceding working generation However, increase in the proportion of the aged persons in the total population implies an overwhelming expansion of the non-productive segment Taking into account the rise in the longevity of population and fall in infant and child mortality, the dependency ratio of the population (dependency ratio being the ratio of those in the age group of 0-15 years and 60+, to those who are in the non-dependent age group of 15 to 60 years) is bound to increase. An important implication of this kind of development is that the position of the aged is expected to worsen because the natural tendency would be to divert the limited resources of the family towards the upbringing and care of the younger generation. Poverty or inadequacy of income leads to dependence on children in old age. Moreover, poverty in India is so

severe that people tend to live from day to day. Incomes are inadequate to meet the dual responsibilities of raising children and taking care of aging parents. One has to remember that gradually the dependency was going to be heavy from the old age group

TABLE - 7

Year	0-14/15-59	60+/15-59	Total Dependency
1971	78 0	9 6	87.6
1981	71 9	9.9	81.8
1991	64.4	10.8	75.2
2001	55.7	11.9	67 6
2011	46.6	13 0	59 6
2021	40.0	15.7	55.7
2031	34 7	36 1	70 8

Source Ambannavar, J P (1989)

It is clearly seen from the table as how much younger generation are loaded with elderly dependence With gradual fall in the birth rates, the dependency load of rearing children decreased, that of providing for the old increased and still total dependency decreased.

On the basis of existing evidences from the Government of India Statistics (1985), it appears that the majority of deaths among older population stem from cardio-vascular disorders, followed by respiratory disorders and infectious diseases such as tuberculosis and lung infections Next comes nutritional, metabolic, gastro-intestinal and genito-urinary disorders Some of the very important common old-age diseases are :

1) Diseases of locomotor system arthritis, spondylities, osteoporosis, gout etc.
2) Eye diseases Cataract, glaucoma, retinal disorders
3) Hearing defects.
4) Dental Problems
5) Environmental Hazards noise & air pollution, severe heat or cold seasons
6) High incidence of infections

TABLE - 8

OLD AGE HOMES IN INDIA

Sr No.	State	Total Numbers
1	Andhra Pradesh	76
2.	Assam	8
3	Bihar	1
4	Chandigarh	3
5.	Delhi	13
6.	Gujarat	55
7	Goa	25
8.	Haryana	5
9	Himachal Pradesh	6
10.	Jammu and Kashmir	3
11.	Karnataka	64
12.	Kerala	123
13	Madhya Pradesh	13
14.	Maharashtra	66
15	Manipur	3
16.	Meghalaya	1
17	Orissa	24
18.	Pondicherry	4
19.	Punjab	28
20	Rajasthan	3
21.	Tamil Nadu	115
22.	Tripura	1
23.	Uttar Pradesh	16
24.	West Bengal	44

From the above table it can be inferred that Kerala has maximum numbers of old age homes i e 123 followed closely by Tamil Nadu (115) and Andhara Pradesh (76) Some of very large states like Rajasthan and Madhya Pradesh have less number of old age homes, 3 and 13 respectively. With contrast a very small state Goa has ample number of 25 old age homes It is very surprising to observe that heavily populated states like Uttar Pradesh and Delhi, have very few numbers of homes

Reason for large numbers of homes in states like Kerala, Tamil Nadu could be said because of high rate of migration to various states or abroad, leaving parents alone Also it can be said that large number of homes and rate of literacy where they are more are positively corelated