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TRENDS, DETERMINANTS AND ECONOMIC CONSEQUENCES OF AGEING POPULATION

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ABSTRACT

All the countries in the world implement various policy instruments to address the issues related to ageing population. Present times it becomes a universal phenomenon. Considering the significance of the study researcher aims to identify global trends of ageing population, to overview the trends of population ageing in Sri Lanka, to identify the determinants of ageing population and to address the issues related to ageing population. Although ageing population in developed countries and upper income countries are high, Sri Lanka faces the problem of ageing population due to falling of birth rates, mortality rates and the increase of life expectancy. Governments as well as private sectors should implement policy instruments in order to overcome issues related to the ageing population since it has various economic and social impacts.

KEY WORDS: *Ageing Population; Birth Rates; Global; Life Expectancy; Mortality Rates; Sri Lanka*

INTRODUCTION

Virtually every country in the world is experiencing growth in the number and proportion of older persons with respect to their population growth. Population ageing can be defined as the increasing share of older persons in the population and it is becoming one of the most significant socio-economic phenomenon of the twenty-first century, with implications for nearly all sectors of society, including labour and financial markets, the demand for goods and services as well as family structures and intergenerational ties (ties that affect several generations). Preparing for the economic and social structures to associate with an ageing population is essential to ensure progress in development. Population ageing is particularly relevant for the goals on poverty eradication, ensuring healthy lives and well-being at all ages and promoting gender equality. As population become increasingly aged, it is more important that

governments should design a proper policy environment and public services specifically targeted to older persons.

REVIEW OF LITERATURE

The definition of ageing itself is arbitrary. The ageing of the population refers most commonly to an increase in the relative proportion of the elderly in the population. The widely used cut-off point of 65 years of age was decided as the age of benefit in the first public social security legislation in Germany in 1873 and perpetuated in the retirement regulations of other countries (Davies, 2003). Generally, in most of the developing world age 60 and above is considered as the cut off for ageing (Myers, 1990, United Nations, 2001). In Sri Lanka, age 60 and above is considered the demarcation age in identifying the elderly population, since the most common mandatory retirement age in the public, private as well as the corporate sectors falls between ages 55 and 60, with an extension perhaps of up to 5 year. Nevertheless, in the agricultural sector and in

the informal private sector in Sri Lanka, people continue to work even beyond 60 years of age as far as they are physically fit to engage economic activities (Siddhisena, 2004).

According to Boom et al. (2011), identified trends, challenges and responses for population ageing in their study. They indicate prominent factors underlying trends of population ageing as association of increased longevity with the declining fertility. However, according to their study this phenomenon of population ageing can be challenged by many factors as, quality of the workforce, non-communicable diseases and financial issues. Implementation of an appropriate policy, comprises with pension reforms, appropriate health care system, increase the age limit of the retirement have been suggested by these researchers in order to overcome the challenges of ageing population. Also they further suggest having business practices to hire these elderly people to enhance the productivity of their business processes because they have expertise knowledge and experience yet they have to retire as a result of reaching the mandatory retirement age. Therefore Boom (2011) recommends having business practices to absorb these expertise and experienced knowledge.

According to Kunin (2009), points out three main reasons that determines population ageing as fertility rates, life expectancy rates and immigration. It is a sharp contrast to United Nations report on ageing 2015 since according to that report reduction in fertility rates, reduction in mortality rates and increase in the life expectancy are the major factors influence ageing population. According to Bengtsson and Scott (2010), they also identify the similar factors affect for population ageing as United Nations.

However when considering about the consequences of ageing population according to the Kunin (2009), reveals that labour force ageing, labour shortages and skill shortages are the main consequences of population ageing. According to Pettinger (2016), shows that even though there are ill-effects of ageing population as the increase of the pressure of public finance, high expenses for pension schemes and health care, stagnation of the economy, Pettinger identifies another positive dimension of population ageing indicating when population ageing is driven by declining birth rates, there will be a smaller share for the young people in the population. This will lead to reduce government expenditure since younger people need more funds for their education and in turn most of them they are not tax payers as well.

Kunin (2009), identifies two categories of impacts of ageing population as, fiscal implications and social implications. Under fiscal implication, population ageing can be affected to taxation, deficiency in resources and productivity and under the social dimension health care expenditure for the ageing population is the main concern. According to the research carried out by Center for Health Workforce Studies (2006), they discussed

entirely how the health sector and the share of expenditure to health sector get affected by ageing population. On the other hand, Boom and Fink (2011), have broadly divided the effects of ageing population into two aspects as labour supply and behavioural changes. However they evaluate the effect of ageing population proxy by these two factors.

IMPORTANT MEASURES TO DETERMINE AGEING POPULATION

Accelerating population ageing in developing as well as the developed countries in recent years tend to implement varieties of measures to measure aged population since phenomenon of aged population generate numerous economic and social effects. Therefore it should be strictly addressed by the policy makers of a country. Success of the policy decisions may also depend on the accuracy of the measurements used to measure aged population.

- **Elderly Dependency ratio (EDR):** the number of individuals of retirement ages compared to the number of those of working ages.
- **Ageing index (Elder-child ratio):** defined as the number of people aged 65 and over per 100 youths under age 15.
- **The median age:** The age at which exactly half the population is older and another half is younger is perhaps the most widely used indicator. Currently, the median age ranges from a low of about 15 in Niger to 40 or more in several European countries, Canada and Japan (United Nations, 2015).
- **Fertility Rate:** Births per 1000 women, categorized according to a specific composition of mothers in the population:
- **Mortality rate:** A death rate. There are a number of different types of mortality rates as, (1) the fetal mortality rate: The ratio of fetal deaths to the sum of the births (the live births + the fetal deaths) in that year. (2) the infant mortality rate: The number of children dying under a year of age divided by the number of live births that year. (3) the maternal mortality rate: The number of maternal deaths related to childbearing divided by the number of live births (or by the number of live births + fetal deaths) in that year.

GLOBAL TRENDS OF POPULATION AGEING

According to data from World Population Prospects: the 2015 Revision (United Nations, 2015), the number of older persons those aged 60 years or over has increased substantially in recent years in most countries and regions, and that growth is projected to accelerate in the coming decades.

Figure 1: Trends in Population aged 60 years or over

	Persons aged 60 years or over (millions)				Percentage change		Distribution of older persons (percentage)			
	2000	2015	2030	2050	2000-2015	2015-2030	2000	2015	2030	2050
World	607.1	900.9	1402.4	2092.0	48.4	55.7	100.0	100.0	100.0	100.0
Development groups										
More developed regions	231.3	298.8	375.2	421.4	29.2	25.6	38.1	33.2	26.8	20.1
Less developed regions	375.7	602.1	1027.2	1670.5	60.3	70.6	61.9	66.8	73.2	79.9
Other less developed countries	341.9	550.1	938.7	1484.9	60.9	70.6	56.3	61.1	66.9	71.0
Least developed countries	33.9	52.1	88.5	185.6	53.8	70.0	5.6	5.8	6.3	8.9
Regions										
Africa	42.4	64.4	105.4	220.3	51.9	63.5	7.0	7.2	7.5	10.5
Asia	319.5	508.0	844.5	1293.7	59.0	66.3	52.6	56.4	60.2	61.8
Europe	147.3	176.5	217.2	242.0	19.8	23.1	24.3	19.6	15.5	11.6
Latin America and the Caribbean	42.7	70.9	121.0	200.0	66.1	70.6	7.0	7.9	8.6	9.6
Oceania	4.1	6.5	9.6	13.2	56.2	47.4	0.7	0.7	0.7	0.6
Northern America	51.0	74.6	104.8	122.7	46.4	40.5	8.4	8.3	7.5	5.9
Income groups										
High-income countries	230.8	309.7	408.9	483.1	34.2	32.0	38.0	34.4	29.2	23.1
Upper-middle-income countries	195.2	320.2	544.9	800.6	64.0	70.2	32.1	35.5	38.9	38.3
Lower-middle-income countries	159.7	237.5	393.9	692.5	48.8	65.9	26.3	26.4	28.1	33.1
Low-income countries	21.2	33.2	54.0	114.8	56.2	63.0	3.5	3.7	3.9	5.5

Source: World Population Ageing-2015, United Nations

The number of people in the world aged 60 years or over is projected to grow by 56 per cent, from 901 million to 1.4 billion, and by 2050, the global population of older persons is projected to more than double its size in 2015, reaching nearly 2.1 billion. Over the next 15 years, the number of older persons is expected to grow fastest in Latin America and the Caribbean with a projected 71 per cent increase in the population aged 60 year or over, followed by Asia (66 per cent), Africa (64

per cent), Oceania (47 per cent), Northern America (41 per cent) and Europe (23 per cent).

Globally, the number of people aged 80 years or over, the “oldest-old” persons, is growing even faster than the number of older persons overall.

Figure 2: World Population aged 80 years or over

	Persons aged 80 years or over (millions)				Percentage change		Distribution of oldest-old persons (percentage)			
	2000	2015	2030	2050	2000-2015	2015-2030	2000	2015	2030	2050
World	71.0	125.3	201.8	434.4	76.5	61.1	100.0	100.0	100.0	100.0
Development groups										
More developed regions	38.5	59.1	85.2	127.8	61.8	44.1	51.5	47.2	42.2	29.4
Less developed regions	34.4	66.2	116.6	306.7	92.1	76.3	48.5	52.8	57.8	70.6
Other less developed countries	32.0	61.4	108.2	285.9	91.6	76.3	45.1	49.0	53.6	65.8
Least developed countries	2.4	4.8	8.4	20.7	99.2	75.4	3.4	3.8	4.2	4.8
Regions										
Africa	3.0	3.7	6.3	22.2	85.7	64.3	4.3	4.5	4.6	5.1
Asia	39.9	60.0	103.7	255.7	94.0	75.0	45.6	47.9	51.4	58.8
Europe	21.2	34.6	46.1	71.0	63.0	33.2	29.9	27.6	22.8	16.4
Latin America and the Caribbean	3.1	10.3	18.7	44.8	101.4	81.4	7.2	8.2	9.3	10.3
Oceania	0.7	1.1	2.0	3.6	69.8	76.8	1.0	0.9	1.0	0.8
Northern America	10.0	13.6	22.0	37.2	36.3	61.7	14.1	10.9	10.9	8.0
Income groups										
High-income countries	37.0	60.0	80.9	145.4	64.5	49.3	52.2	48.6	45.0	33.5
Upper-middle-income countries	19.0	37.2	66.6	182.5	96.2	79.0	26.7	29.7	33.0	42.0
Lower-middle-income countries	13.5	24.4	39.3	94.8	80.9	61.1	19.0	19.5	18.5	21.8
Low-income countries	1.5	2.7	4.9	11.3	81.6	80.0	2.1	2.2	2.4	2.6

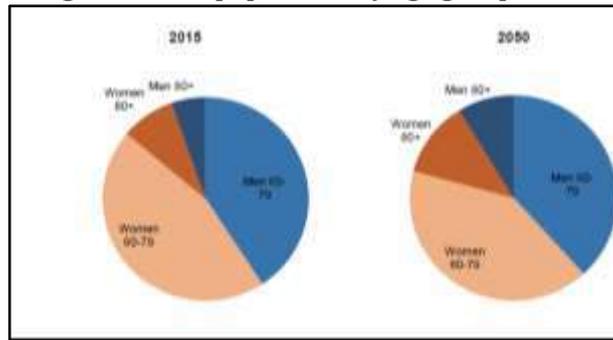
Source: World Population Ageing-2015, United Nations

Projections indicate that in 2050 the oldest-old will number 434 million, having more than tripled in number since 2015, when there were 125 million people over age 80.

Globally, during 2010-2015, women outlived men by an average of 4.5 years. As a result, women accounted for 54 per cent of the global population aged 60 years or over and 61 per cent of those aged 80 years or over in

2015. In the coming years, average survival of males is projected to improve and begin to catch up to that of females so that the gender balance among the oldest-old persons becomes more even. The proportion of women at age 80 years or over is projected to decline to 58 per cent in 2050.

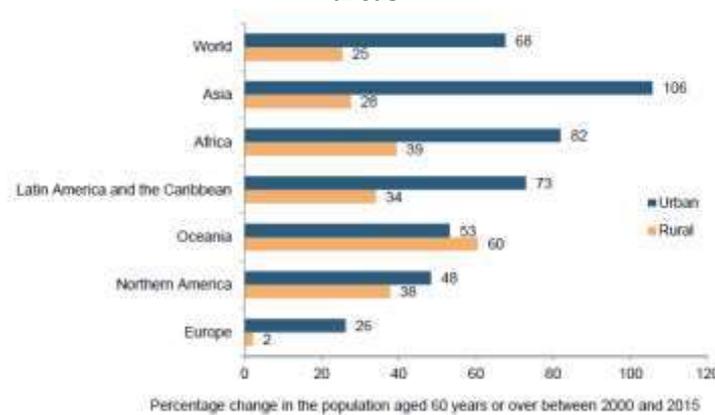
Figure 3: Share of global older population by age group and sex, 2015 and 2050



Source: World Population Ageing-2015, United Nations

The older population is growing faster in urban areas than in rural areas.

Figure 4: Percentage Change in the population aged 60 years or over between 2000-2015 by urban/rural areas



Source: World Population Ageing-2015, United Nations

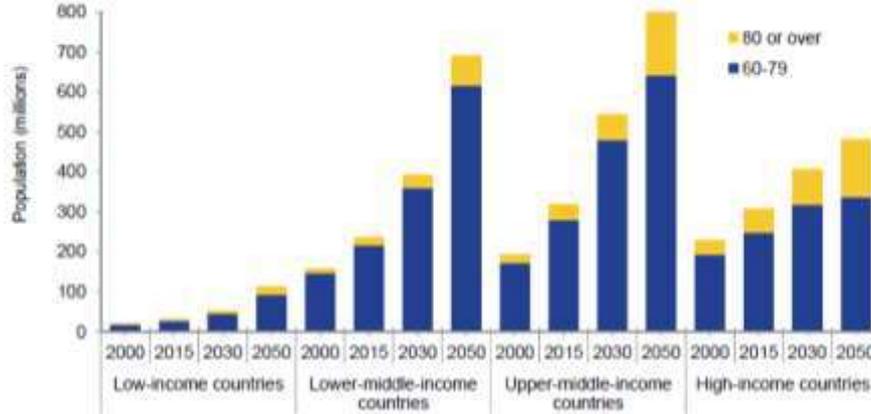
At the global level between 2000 and 2015, the number of people aged 60 years or over increased by 68 per cent in urban areas, compared to a 25 per cent increase in rural areas. As a result, older persons are increasing in urban areas. In 2015, 58 per cent of the world’s people aged 60 years or over resided in urban areas, up from 51 per cent in 2000. Even though among the other major regions Asian region represents the highest value (106%) for the older persons who reside in urban areas, Asian region holds a lower value for the older people in rural (28%).

Globally, the number of older persons is growing faster than the numbers of people in any other age group. As a result, the share of older persons in the total population is increasing virtually everywhere. While population ageing is a global phenomenon, the ageing process is more advanced in some regions than in others. In 2015, one in eight people worldwide was aged 60

years or over. By 2030, older persons are projected to account for one in six people globally. By the middle of the twenty-first century, one in every five people will be aged 60 years or over. By 2030, older persons will outnumber children aged 0-9 years (1.4 billion versus 1.3 billion); by 2050, there will be more people aged 60 years or over than adolescents and youth aged 10-24 years (2.1 billion versus 2.0 billion).

The ageing process is most advanced in high-income countries. Japan is home to the world’s most aged population (1: 33) were aged 60 years or over in 2015. Japan is followed by Germany (28 per cent aged 60 years or over), Italy (28 per cent) and Finland (27 per cent). The pace of world population ageing is accelerating.

Figure 5: Population aged 60-79 years and aged 80 years or over by income group 2015, 2030, 2050



Source: World Population Ageing-2015, United Nations

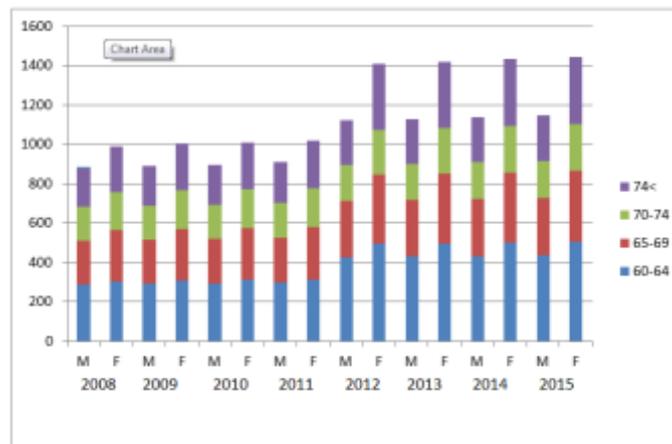
When consider about the above figure aged population is abundant in upper middle income countries and it is projected to increase even more in 2030 and 2050.

Above foregone paragraphs illustrate the trends in population ageing and by considering those factors it is a vital necessity to implement accurate and timely policies that address the issues related to ageing populations.

AN OVERVIEW OF AGEING POPULATION IN SRI LANKA

Sri Lanka has experienced an increasing trend in population aged over 60 since the 1950s, primarily as a result of declining fertility rates and secondarily due to a considerable decline in mortality rates, and increasing life expectancy commenced in the early 1950s. The proportion of the population over 60 years of age has increased from 5.4 per cent in 1946 to 10.0 percent in 2001 and according to projections, will more than double by 2033 reaching 22 percent. Its highest growth rate is expected during the coming two decades with a 3.65 per cent increase.

Figure 6: Aged Population in Sri Lanka, 2008-2015

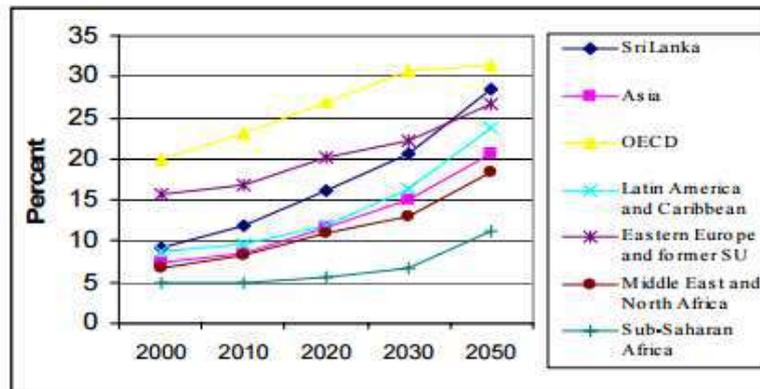


Source: www.indexmundi.com

When we consider about the trends in ageing population in Sri Lanka recent eight years, we can see there is a gradual increase in ageing population in Sri Lanka.

According to the World Bank statistics, Sri Lanka is one of the fastest ageing countries in the world.

Figure 7: Aged Population of Sri Lanka and other regions, 2000-2050



Source: World Bank, 2016

Sri Lanka’s share of population over 60 years old in 2010 was 10.2 percent, which exceeded the average of all regions in the world except OECD countries, Eastern Europe and the former Soviet Union and population projections show a record aging of population in 2050, the share of Sri Lankan population over 60 years old is projected to reach 28.5 percent in future.

DETERMINANTS OF POPULATION AGEING

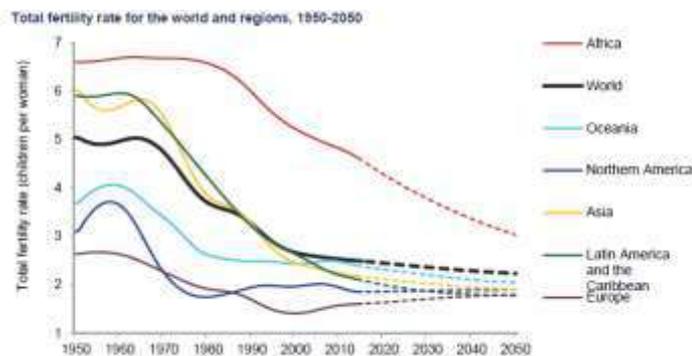
When we concern about the key drivers that determine the population ageing, reduction in fertility rate, reduction in mortality, Increase in life expectancy, high

pace of population ageing ranks higher than the other factors.

1. Reduction in Fertility

Considerable reduction in fertility eventually leads to a reduction of the proportion of children and younger generation in the population. Accordingly, this will be a primary cause of the increasing proportion of elderly groups in the population. The decline in fertility among young women can be seen in many developed and developing countries. Below figure shows how the total fertility of the world decline gradually during 1950-2050

Figure 8: Total Fertility Rate for the world and regions, 1950-2050

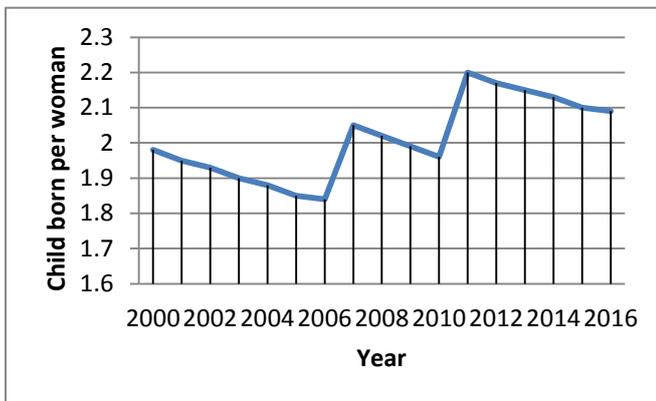


Source: World Population Ageing-2015, United Nations

Figure illustrates trends in total fertility for the world and six regions, estimated for 1950 to 2015 and projected to 2050 from the 2015 Revision of World Population Prospects. At the global level, total fertility in 1950 was just above 5 children per woman and it has fallen to around 2.5 children per woman in 2015. That global decline reflects reductions in fertility in all six regions.

When we consider the situation in Sri Lanka, unlike in other Asian countries, Sri Lanka’s fertility levels began to decline even before policy decisions were made to introduce family planning at the national level. The fertility transition began in Sri Lanka during the early 1960s. The next four decades witnessed a steady decline in crude birth rates in the country. During 2000-2016 there are fluctuations in total fertility rate and from 2011 there is a significant reduction in total fertility rate.

Figure 9: Total Fertility Rate in Sri Lanka, 2000-2016

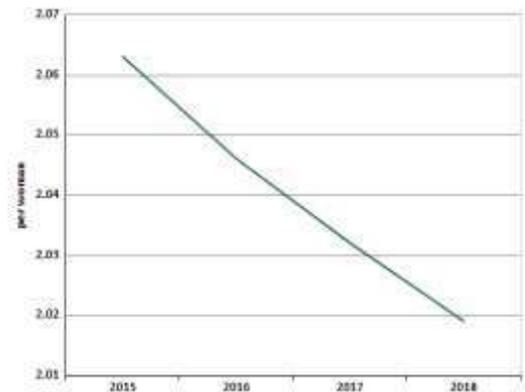


Source: www.statistics.gov.lk

Even though this rapid fertility decline in Sri Lanka was attributed to several factors such as greater participation of women in education, more equitable access and coverage of health care, increased social exposure and increased level of labour force participation and employment when fertility rate declining continuously this will create deficiency in young people who can actively contribute more to the economic development in the long run.

2. Reduction in Mortality

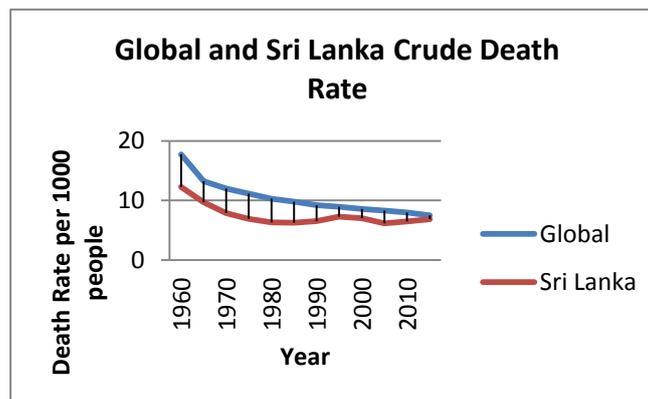
The other important determinant of increasing of the proportion of elderly people in a country is reduction



in mortality. Mortality which is the incidence of death in a population has also continued to decline, especially at older ages, reflecting higher population ageing in most of the countries.

The significant reduction of Sri Lankan mortality rate was apparent since 1950s. During 1950-1995 period. The crude death rate declined by 67percent from 19.8 in 1950-1955 to 6.3 percent in 2016. The key factors for the decline of mortality in Sri Lanka were the public sector expansion and development of health services.

Figure 10: Global and Sri Lanka crude death rate



Source: www.indexmundi.com

The main reasons behind the low crude death rate in Sri Lanka is providing necessary infrastructure to deliver preventive health care measures. For example, cholera and malaria was controlled since 1940 by the Ministry of Health through preventive and curative medical services. As a result of this policy measures Sri Lanka had a sharp decline in mortality.

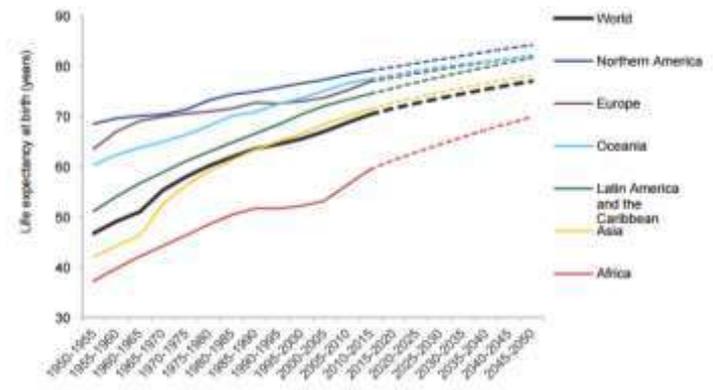
3. Increase in Life Expectancy

As fertility rates fall over time then improvements in longevity become increasingly important drivers of

population ageing. The increase in life expectancy will also affect both the number and the proportion of the population. Increasing life expectancy means that the elderly population will live longer and continue to form a long portion of the population.

Figure shows the life expectancy at birth for the world and six regions estimated for 1950 to 2015 and projected to 2050 from the 2015 Revision of World Population Prospects.

Figure 11: Life Expectancy at birth for the world and regions, 1950-2050



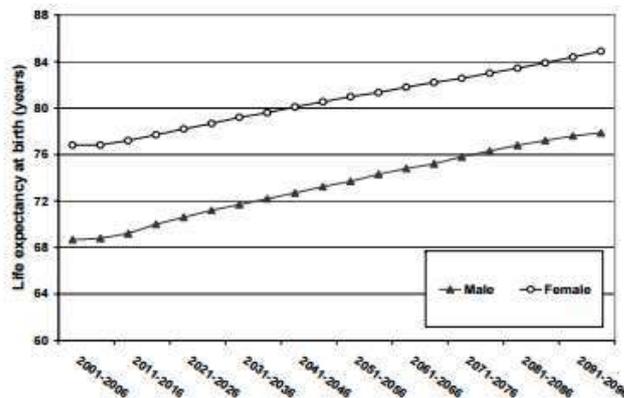
Source: World Population Ageing-2015, United Nations

In 2010-2015, life expectancy at birth globally was 70.5 years, having risen from 46.8 years in 1950-1955. Across the six regions in 2010-2015, the expectation of life at birth was longest in Northern America, at 79.2 years, and shortest in Africa, at 59.5 years. All regions have experienced an increase in life expectancy since 1950, with the fastest increases occurring in Asia, where life expectancy at birth

increased from 42.1 years in 1950-1955 to 71.6 years in 2010-2015, and in Latin America and the Caribbean, where it rose from 51.2 years to 74.5 years over the same period.

The South Asia region has experienced a progressive increase in life expectancy over the 50 years period. Sri Lanka leads other countries in terms of performance in demographic indicator in Sri Lanka.

Figure 12: Life Expectancy Rate in Sri Lanka 2000-2096



Source: World Bank, 2006

Life expectancy in Sri Lanka has increase substantially for both males and females over the six decades from 1946. Life expectancy at birth has increased 69 years to 71 for males and from 77 years to 79 years for females over 2001 and 2016. It is projected to rise even further by 2096.

ECONOMIC CONSEQUENCES OF AN AGEING POPULATION.

1. Labour Force

Economic prosperity of a country depends on the size and the quality of the work force. The size and structure of a country’s current and future labour depends on several factors which includes demographic changes, the participation rate, willingness of group of people to join the labour force, net migration patterns, working hours and length of their working life. More important factor is reduction in the size of the working ages

population due to changing demographics will have negative impacts for the supply of labour in the absence of changes to participation rates. The increase in older people tends to decrease the number participation rate in the labour force thereby resulting in a decline in labour supply and economic growth. Postponing retirement will effectively increase the size of a country’s working aged population and thereby its labour supply.

For example the share of the working aged group (15-59 years) in the Asia region would drop from 64 percent in 2015 to 58 percent in 2050. In Sri Lanka percentage distribution of population in working ages is expected to drop 66.3 percent in 2016 (<http://www.indexmundi.com/>) and 56 percent and 52 percent respectively in 2051 and 2101 (De Silva, 2001/2011). The expected drop in the share of working

age groups would imply that labour force would shrink in these countries in future.

In addition to the labour supply, there is growing demand for labour intensive such as old age health care, institutional, social and home care services due to population ageing.

2. Capital Markets

Ageing population in the world will affect global capital markets in terms of both the demand for capital and the supply of the capital (savings rates). The impact of ageing on the demand for capital is the amount of capital that households, companies and government require for investment. Owing to slower population growth in some countries, the demand for new houses and infrastructure will decline. The money available for investment relates to the impact of ageing on the supply of capital. According to some observers, global ageing will lead to reduce savings rates as the portion of retirees (dissevers) increases. And the proportion of workers (savers) decline. The lower propensity to save by the increased older generation could also have a negative impact on the capital markets, particularly the stock market. According to some analysts' predictions, there have been some effects of population ageing on asset prices. There is a tendency for asset prices to fall due to selling off of assets by elderly people. This is called an "asset meltdown". An asset meltdown in housing markets can take place due to decreased demand from ageing members.

3. Productivity

Older work force will have a challenge of maintain high productivity as the output is produced by a declining labour force. Older workers' productivity is generally assumed to decline. There is clear evidence that productivity can decline in physically demanding jobs such as manufacturing. The economic growth depends on the productivity of the companies. Companies need to promote fitness, health, and conscious work force in order to achieve higher productivity. However the negative impact of slow output growth on per capita income would be mitigated to some extent by the declining population growth.

Meanwhile, population ageing will result an increase in the median age of workforce. Such a development is expected to have a positive bearing on productivity as the stock of skills and work experience rises over time. The changing age composition of the work force coupled with its relative scarcity over time should therefore have a beneficial effect on unemployment rate, marginal productivity and wages. Ageing can therefore prevent important economic gains on society as well as creating economic challenges.

4. Savings and investment

The life-cycle theory of savings suggests that individuals make a choice between present consumption and savings for future consumptions. According to the theory, individuals' wealth or assets increase over the working life and reach a maximum at the retirement age. From then onwards assets decline due to selling by the individual to pay for consumption during retirement (Cyril Bogahawatte, 2008). This is particularly the case

when there is no or limited retirement benefit schemes to ensure the smooth functioning of the consumption process. Financial or non-financial retirement benefits in many developing countries are inadequate. In this situation, the elderly groups' tend to utilize their accumulated assets for their consumption and this would further negatively impact on savings. The drop of savings will ultimately influence to shrink investment since savings are the source of investment. Finally this creates a macro economic contraction.

5. Fiscal effects

Population ageing that would be experienced by countries are likely to have a significant effect on the public expenditure in terms of provisions of pensions and health care. The expenditure on pensions are remittance to households and both health care and pensions are components of government expenditure. Hence these expenditures will have a negative effect on the budget deficit in a country. On the other hand increasing of these expenditures might not be a burden on budget deficit if tax revenues are high. When total population consists a large portion of older people they cannot contribute to the national output effectively or they cannot pay taxes. Consequently the higher expenditure and the lower tax revenue will eventually results to create a huge budget deficit.

6. Spending on pension schemes

The number of pensioners and the length of retirement period have increased due to increased longevity during last few decades. The giving up work system in Sri Lanka consists of both fully financed and pay-as-you go (PAYGO) schemes mostly covering workers in the official sector. Gaminiratne (2004) states that the both systems still only cover approximately 25 percent of the working age population, implying that a larger proportion of workers remain without formal social security coverage. As a result, these propensities in the expenditure on pensions make known the serious suggestions of ageing on public finance, public investment and economic development of the country. In 2012 the total number of pensioners is 510,343 (Department of Pensions, 2013)

1. Spending on health

In common, older people have need of more health concern and treatment than younger people, and the pattern and causes of their illness are different as well, which need extraordinary care and geriatrics treatment that cost very much. Therefore, the provision of long-term health care is another most serious issue combined with the ageing of the population. On the other hand, with the raise of older people and the changing age structure from young to elderly, it is necessary to invest relatively more for older peoples' health and prime care.

ADDRESSING ISSUES RELATED TO AGEING POPULATION

In Sri Lanka, there are several methods and means to assist the aged population. These support systems for the elders consist of pensions, provident funds, public assistance systems, their own savings, wage labour and family community support. The special objectives of the Ministry are to promote active ageing by health publicity

and to prevent disability and disease among elders. Health care staff at divisional and regional levels has been trained as resource persons in collaboration with the Department of Social Services and Help age Sri Lanka. The government of Sri Lanka put forward several schemes and programs in order to assist the older population in Sri Lanka.

The performance of Protection of the Rights of Elders Act No. 09 of 2000 is a step forward in providing services for elders in Sri Lanka. The act has made provision for the establishment of a National Council for elders, a National Secretariat for Elders, a National Fund for Elders and a Maintenance Board for Elders. Until the enactment of Elders Act No. 9 of 2000, there was no specific legislation to provide for the general, social and financial security of older persons. The Ministry of Social Services and Social Welfare provide services and activities such as provision of elders' identity card, establishment of village level / divisional level / district level elders committee.

Other than these services government, non-government and private sector entities should be able to make a platform for elders to actively contribute to the economy in a country. Even though some older people are retired due to their age most of the times we can see they still have potential to contribute to the economically effective activities. All the countries especially less-developed countries should be able to make projects and programs to absorb their capabilities. Furthermore this will result older people to become more healthy both in physically and mentally since they are financially stable.

CONCLUSION

The prominent feature of the age pyramid is the gradual decline in the population below 15 and gradual increment in the population above 60. It clearly points out the impacts due to the rapid decline in fertility and the improvement in life expectancy. The economic implications of ageing population are contractions in labour force, decreasing in capital accumulation, pressure on expenditure, budget deficit, deficiency in investment and savings and high expenditure on health. However, abundant policy options are required to be considered, the most realistic and sustainable policy options, programs and approaches have to be taken on dynamically and critically to meet the challenges both in locally and internationally.

REFERENCE

1. Annual reports of Central Bank of Sri Lanka for various years, Central Bank of Sri Lanka.
2. Bengatasso T, Scott K., 2010, "The Ageing Population", School of Economics and Management, Sweden.
3. Bloom D., Fink G., 2011, "Implications of Population Ageing for Economic Growth", National Bureau of Economic Research, Cambridge.
4. Current Imperative in Understanding Poverty, 2011, The Center for the Poverty Analysis (CEPA)
5. Demographic Trends, The profile for old people and the emerging issues, 2006, Published by World Bank
6. De Silva W.T., 2007, A Population Projection of Sri Lanka for the New Millennium 2001-2101: Trends and Implications, Institute for Health Policy, Colombo, Sri Lanka

7. Davies A.M., 2003, *Ageing and Health in the 21st Century-An overview in WHO Kobe Centre, "Ageing and Health: A Global Challenge for the 21st Century", Proceedings of a WHO Symposium, Kobe, WHO Kobe Centre.*
8. Foot D.K., 2009, *Some Economic and Social Consequences of Ageing.*
9. Kunin R., 2009. "Population Ageing: Economic and Social dimensions", *Business Council of British Columbia Outlook 2020 project.*
10. Mafauzy M., 2000 Jan, Vol.7 (1), "The Problem and Challenges of the Ageing Population of Malaysia".
11. Myers G.C., 1990, *Demography of aging, in Binstock R. and George L. (eds.), Handbook of Aging and the Social Sciences, 3rd edition, New York, Van Nostrand Reinhold.*
12. Pettinger, T. *The impact of an ageing population on the economy*[Online] Available at: <https://www.economicshelp.org/blog/8950/society/impact-ageing-population-economy/> [Accessed 10 November 2018].
13. Prasannath V., "Trends in ageing Population and Its consequences in Sri Lanka". Post Graduate Institute of Agriculture, University of Peradeniya, Sri Lanka
14. Priyadarshana G.T.R., "Economic and Social Consequences of an Ageing Population", *News survey-2012, Central Bank of Sri Lanka.*
15. "The impact of the ageing population on the health workforce in the United States". March 2006, Center for Health Workforce Studies.
16. Sri Lanka Labour Survey Annual Report-2014, Department of Census and Statistics, Sri Lanka
17. Sri Lanka addressing the needs of an ageing population in Sri Lanka, 2008, published by World Bank
18. World Population Ageing-2015, Department of Economics and Social Affairs, Population Division, United Nations, New York.
19. World Population Prospects-2015, United Nations, New York
20. www.indexmundi.com (viewed on 24, 25, 28th Oct. 2016)
21. www.statistics.gov.lk/social/Fertility_trends_and_differentials (viewed on 25th Oct. 2016)
22. <http://data/OECD.org/pop/elderly-population.html> (viewed on 28th Oct. 2016)