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Growth and Structural Changes of Sri Lankan Population During Coming Decades with Special Reference to Youth and Elderly

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Abstract

Although the age-sex structure is a significant parameter that influences current and future demand for goods and services, without census data planning became problematic. Due to the Covid-19 pandemic, the planned Sri Lankan population census of 2021 was postponed to the year 2022, however, along with the economic recession, and now is scheduled for 2024. The objective of the paper is to explore the population dynamics of present and future decades with reference to youth and elderly and their implications. Dynamics were examined through the projected data obtained from a projection. Compared with the enumerated population of 20.4 million in 2012, is expect addition of another 5 million 2042. While the elderly (60+) population of 2.5 million enumerated in 2012 is expected to increase 5.2 million by 2037 - doubling of 25 year period. Within the South Asia, Sri Lanka demonstrates the most rapidly ageing process - by 2042, almost one out of every four persons is expected to be elderly. Although in 2012, youth (15-29 years) population was 4.7 million, due to the observed fertility increase in the recent past, they would be 5.2 million by 2032, and this large volume would remain the same until 2042. However, currently observed unexpected behaviour of demographic drivers namely, births, deaths and migration, are affecting the future size of the total population and its various segments, including children, youth and elderly in Sri Lanka. Along with the rapid ageing process, the development of appropriate policy reforms particularly to provide comprehensive social protection to the elderly is an immediate need in Sri Lanka.

Keywords:

projected population, age-sex structure, ageing, youth bulge, demographic dividend

1. Introduction

Integrating population projections and relevant other data into the planning process will contribute to the success of development planning efforts. In this light, due attention must be paid to the numerous demographic factors, such as future changes in size, composition and distribution of the population (Pathak & Ram, 1992; Romanic, 1990). Change in youth population particularly has implications on general and higher education, vocational education and employment. Undoubtedly current population growth patterns, including youth will determine much of the future demand for these needs. There are more than 1.1 billion young people aged 15-29 living in Asia and the Pacific region. They represent more than 25 percent of the entire population in Asia and Pacific region. Over 60 percent of the world's youth population is living in this region which shows the highest youth populated region in the world.

It is a fact that most developed economies in the region are having an ageing population, but it is not the case in the majority of developing countries (Morris, 2019). Most of the world's oldest populations aged 65 and above are living in Asia and Europe. Based on 2019 World Population Data, Japan is in the top at 28 percent of the elderly population to the country population. In this ranking, Sri Lanka is positioned 31st in the world having a 7.8 percent of the elderly population (Population Reference Bureau, 2022).

During the last two decades, four national level comprehensive population projections have been published by three local demographers. In 1994, "Population and Labour Force Projections for Sri Lanka" by Soma De Silva for the period of 1991-2030 on 1991 base population (De Silva, 1994). Using the same base population W Indralal De Silva published "Population Projections for Sri Lanka: 1991-2041" in 1997 (De Silva, 1997). Another projection work titled "Population and Manpower Resources of Sri Lanka" was published by A T P L Abeykoon in 1998 based on 1995 mid-population for the projection period of 1995-2050 (Abeykoon, 1998). In 2007, again W Indralal De Silva published his second projection work "A Population Projections for Sri Lanka for The New Millennium 2001-2101: Trends and Implications" which was based on the 2001 mid-population and for the period of 100 years (De Silva, 2007).

Sri Lanka does have a long history of undertaking population censuses. The first national census was 1871 and recent past censuses were conducted in 1971, 1981 and 2001. However, the latest census which was planned for the year 2011, was postponed and conducted in 2012 due to financial constraints etc. The next round of census was planned for 2021, however, due to Covid-19 pandemic it was pushed to year 2022 – this was also not realized. Although it was further pushed down to the year 2023, that also not realized. Although the authorities are now planning to conduct it in the year 2024, cooperation from the general public will be a serious challenge without strong propaganda to win the support of the general public. Population dynamics such as changes in population growth rates, age structures and distributions of people are directly linked to national and global developmental challenges and their solutions. The objective of the paper is to demonstrate the population dynamics of present and future decades with special reference to total, youth and elderly, and highlight possible implications in Sri Lanka. Their dynamics were examined particularly through the projected data.

2. Literature Review

Providing answers for why make population projections, Smith et al. (2006) explain the roles of population projections in their publication as (1) predicting future population change (2) analyzing determinates of population change which is the "what if" role of projection (3) presenting alternative scenarios: giving an indication of possible future scenarios (4) promoting agendas and sounding warnings: support a particular political or economic agenda or to sound a warning (5) providing a base for other projections such as school enrollment, labour force projections. Population Projections facilitate policymakers and planners to study major trends, and how it affects social and economic development and help them develop appropriate policies and programs. Many users of projections may not be aware of exactly how the projections are produced, the assumptions and limitations that underlie them. The users need at least a basic understanding of these assumptions and their reliability before using those (Kaneda & Bremner, 2014). The idea of population growth is an important factor for overall economic growth has been confirmed in several studies. High-income countries having low population growth is likely to create social and economic problems while low-income countries having high population growth may slow their development (Peterson, 2017; Srivastava, 1999; Tiwari et al., 2020). A Canadian Demographer Keyfitz (1981) writes that the future population depends on many factors such as social, economic and technological but all these factors cannot be considered for population projections. He further states "Demographers can no more be held responsible for inaccuracy in forecasting population 20 years ahead than geologists, meteorologists, or economists when they fail to

announce earthquakes, cold winters, or depressions 20 years ahead. What we can be held responsible for is warning one another and our public what the error of our estimates is likely to be" (Keyfitz, 1981).

The accuracy of projections by age groups is more important than the accuracy of projections of the size of the total population with regard to real application on planning process. Age group error patterns are substantially larger among age groups and the differences in errors among age groups decline when the projection horizon becomes longer (Smith & Tayman, 2003). An article by de Silva & De Silva (2019) examined the accuracy of observed vs. projected population, projection errors and their measurement as well as age-sex structures of two projections against 2012 observed population and it was concluded that projected figures are closer to observed figures in short periods than the long period.

Population aging has identified as an emerging research problem in developing countries. Population aging will be discussed prominently in future sustainable development agenda with the knowledge on population aging in developing countries (Kudo et al., 2015). Lin (2012) questioned whether the Youth Bulge is a demographic dividend or a demographic bomb in developing countries? It is a fact that youth bulge is an important demographic phenomenon in developing countries. Such countries need to increase employability of young people while facilitate dynamic structural change to create jobs for youth. Then only the youth bulge can be transformed into a demographic dividend smoothly (Lin, 2012).

3. Data and Methods

Population projections play two distinctive roles in development planning and policy formulation (Srivastava, 1999). Firstly, estimates of future population are taken into consideration when setting various economic and social planning targets. Secondly, the consideration of the size of the probable future population may have implications for the desirable future pattern and rate of growth. Future trends in total, youth and elderly populations were examined through the projected data obtained from the population projection made by De Silva and de Silva (2015) "Sri Lanka: 25 million people and implications - population and housing projections, 2012-2062". The projection was based on 2012 mid-year population which were the observed numbers from the Population and Housing Census in 2012. A brief explanation of the methodological approach and assumptions used for the projection purpose is presented in Annexure A. For comparison purposes, total and age specific population data in previous censuses was taken from the sources of the Department of Census and Statistics.

4. Results

4.1. Population growth during the post-independence period

Since 1871 population of the entire country was enumerated and more and more detailed information was collected in subsequent censuses, including age, sex and many other demographic and socio-economic variables. After obtaining independence from the British in 1948, the first census of Sri Lanka was carried out in 1953, which recorded a population of 8.1 million. Since then, censuses were conducted in 1963, 1971, 1981 and the enumerated population of the country in 1981 was reported as 14.8 million (Table 1). The 2001 census which was conducted after 20 years since 1981, covered only 18 out of 25 districts in Sri Lanka excluding 7 districts in Northern and Eastern Provinces except Ampara district. However, a partial enumeration was carried out in Mannar, Vavuniya, Batticaloa and Trincomalee districts and there was no enumeration in districts of Jaffna, Mullaitivu and Kilinochchi primarily due to civil disturbances in those districts of the country since 1983. The size of the population of the 18 districts where the complete enumeration was carried out in 2001 census was 16,929,689 (16.9 million) only. Of the remaining seven districts the size of the population was estimated by using enumerated headcount and other information. Thus, the total population for the entire country according to the 2001 census was a total of the estimated figures for the districts where the census was

not conducted and the actual enumerated figures for the rest of the country (Department of Census and Statistics, 2006). The size of the total population of Sri Lanka in 2001 was presented as 18.8 million (Table 1).

The latest population census with national coverage was carried out in 2012, 31 years after the previous census in 1981. The enumerated population in the 2012 census was 20.4 million. Compared with the population of 2.4 million in 1871, by 2012 another 18 million had been added to the Sri Lankan population. During the inter-censal period of 1981-2001 or 20.3 years, the number of people added to the Sri Lankan population was almost 4 million, however, during the latest inter-censal period of 2001-2012 (10.7 years) the number added was only 1.6 million (Table 1). This average trend indicates that the number added to the population each year has declined significantly over the past few decades.

Table 1: Population enumerated at the census and growth rate, 1871-2012

Census date	Enumerated population	Inter-censal growth		Average annual growth rate (%)
		Number	%	
1871 March 27	2,400,380	-	-	-
1881 February 17	2,759,738	359,358	15.0	1.41
1891 February 26	3,007,789	248,051	9.0	0.86
1901 March 01	3,565,954	558,165	18.6	1.70
1911 March 10	4,106,350	540,396	15.2	1.41
1921 March 18	4,498,605	392,255	9.6	0.91
1931 February 26	5,306,871	808,266	18.0	1.67
1946 March 19	6,657,339	1,350,468	25.4	1.51
1953 March 20	8,097,895	1,440,556	21.6	2.84
1963 July 08	10,582,064	2,484,169	30.7	2.63
1971 October 09	12,689,897	2,107,833	19.9	2.22
1981 March 17	14,846,750	2,156,853	17.0	1.67
2001 July 17*	18,797,257	3,950,507	26.6	1.16
2012 March 20	20,359,439	1,562,182	8.3	0.74

*Estimates

Source: Various reports of the Department of Census and Statistics

Sri Lanka's population has grown eight times since the first national census of 1871, which recorded only 2.4 million people. The first doubling of the population took place in 54 years between 1871 and 1925. It doubled again in 35 years between 1925 and 1960. This doubling within a short period indicates a relatively high rate of population growth. By which year did the country expect to have a population of 19.2 million in Sri Lanka, that is, exactly double the size reported in 1960? Demographic estimates suggest that the size of the population would have reached 19.2 million by the year 2003, a doubling in 43 years. It should be noted that the population of 18.7 million enumerated in the census of 2001 is slightly lower than double the population reported in year 1960, which was 9.6 million.

Sri Lanka's population has grown to 20.4 million in 2012, an almost nine-fold increase since the census of 1871, which recorded only 2.4 million people. The growth of the Sri Lankan population during the 20th century has not been uniform. Until 1946 the average annual intercensal rate of growth never exceeded 2 per cent per annum (Table 1). However, there is a growth spurt in the post-war years. The annual rate shot up to 2.84 per cent in the period 1946-53 and remained more or less the same during the period 1953-63. During this period the mortality rate had come down, while the birth rate remained high. As a reaction to the potential problems caused by such rapid growth, policies and programmes to reduce fertility was initiated since late 1950. Consequent to such activities, after 1963 there was a clear decline in the rate of growth population while at present it stands at well below one per cent.

The average annual growth rate between 1981 and 2001 was 1.16 per cent, while during the period between 2001 and 2012 it was 0.74 per cent (Table 1). The reader may wish to consider the point about the effect of programs to reduce fertility compared with the effect of higher child survival, improved female education, impact of welfare programs and the inevitable adjustment of fertility and birth rates. The often-mentioned issue is the lagged reduction of birth rates following death rates as a multi factor development phenomenon.

4.2. Projected total population: 2012 to 2062

According to the standard projection, the population of Sri Lanka would reach 21.4 million by 2017, and 22.2 million by 2022 (Table 2). The size of the population could reach 25 million and 25.8 million marks by 2042 and 2062 respectively. Although in the latter part of the standard projection, i.e., between 2052 to 2062, the size of the population continues to grow, a pattern which indicates a stability of the population shown between 25-26 million levels. However, compared with the observed population of 20.4 million in 2012, the country's population is expected additional 5 million by another 25 years' time (Table 2).

Table 2: Projected population of Sri Lanka, 2012 to 2062:
High, Standard and Low Projections ('000 persons)

Year	High	Standard	Low
2012	20,361	20,361	20,361
2017	21,484	21,341	21,193
2022	22,562	22,232	21,881
2027	23,587	23,036	22,445
2032	24,574	23,765	22,891
2037	25,535	24,401	23,202
2042	26,454	24,918	23,360
2047	27,296	25,308	23,352
2052	28,040	25,562	23,186
2057	28,712	25,725	22,892
2062	29,347	25,813	22,506

Source: 2012 figure from population census and rest from De Silva and de Silva (2015)

The expected population increase, during the five decades from 2012 in Sri Lanka, is primarily due to the increase in fertility from below replacement to well above replacement level. Due to a number of reasons, the level of fertility in the country has increased significantly¹ during the past 10-15 years (De Silva, 2016). Although in the standard projection, it is assumed that the total fertility rate would decline gradually since 2012, the absolute additions to the present population, during the next 25-30 years are noted to be very significant. Apart from fertility, the expected increase in life expectancy of the Sri Lankans, particularly the improved male survival also contributed to the increase in the projected population. The latest life tables of Sri Lanka, constructed for the period 2011-2013, indicate that the life expectancy at birth of 72.4 years and 78.0 years for males and females respectively² (Department of Census and Statistics, 2016).

¹ For details refer Appendix A.

² In 2000-2002, life expectancy at birth of males and females were only 68.8 years and 76.6 years with a gender gap of 8.5 years (De Silva 2008).

In the high trajectory projection, the Sri Lankan population would reach 21.5 million by 2017 and demonstrates a rapid increase throughout the projection period (Table 2). By the end of the projection period, the size is expected to reach the 29.3 million mark, which is significantly higher than the corresponding value reported in the standard trajectory of 25.8 million. Compared with the standard trajectory the assumptions used in the high trajectory tend to produce a higher volume of the population throughout the projection period.

In the low trajectory, the size of the population in 2017 would reach 21.2 million and the highest total of 23.4 million by 2042 (Table 2). Since then, the size of the population is expected to decline under the low trajectory. The rapid decline in fertility, slow progress in life expectancy and heavy net loss due to international migration are assumed in this trajectory. All three projections, comprising the standard, high and low, show that the population growth in numbers will continue for the next three decades.

4.3. Projected age and sex structures: 2012 to 2062

The age and sex structure of a population is a significant parameter that influences current and future determinants of growth, viz fertility, mortality and migration. There are various methods to analyse the gender and age group specific structural composition of a population. Nevertheless, only a few selected methods have been utilized for the forthcoming analysis.

4.4. Sex structure

Sri Lanka, though located in the South Asian region, has not adhered to the common South Asian model, which is the male favoured sex ratio. Of the total population of 20.4 million enumerated in the population census of 2012, the sex ratio is estimated to be 93.8 (Table 3). In other words, in 2012, for every 100 females in Sri Lanka, there were only 94 males – a significant shortage of males existed in Sri Lankan society.

In the coming 2 or 3 decades, the female favoured sex ratio is expected to increase further, primarily due to the greater improvement in female life expectancy. However, it is assumed that significant improvement in male health in Sri Lanka during the coming decades will have a positive impact on male survival too. Thus, a significant increase in life expectancy at birth among males will be expected. However, it is also expected that more males compared to females would migrate for foreign employment and residency to developed countries in the coming decades. Because of these two offsetting factors, the sex ratio of the population would increase marginally after another 2 or 3 decades.

As the standard projection highlights, when the Sri Lankan population reaches the 23-24 million mark in the 2027-2032 period, the sex ratio of the population would be 92.2 males per 100 females. However, from 2032 onwards sex ratio is expected to increase gradually in favour of males, thus by the end of the projection period there would be 94.8 males per every 100 females (Table 3). Beyond 2062 also the sex ratio would increase marginally; however, even within and beyond the projection period the excess of females over males will be a significant feature of the Sri Lankan population. Single-year projected population 2012-2042 by sex is given in Annexure B.

Table 3: Projected population by sex, 2012 to 2062: Standard Projection

Year	Male ('000)	Female ('000)	Sex Ratio (Males per 100 females)
1981	7,568	7,278	103.9
2001*	9,359	9,438	99.2
2012	9,856	10,505	93.8
2017	10,290	11,051	93.1
2022	10,687	11,545	92.6
2027	11,053	11,983	92.2
2032	11,398	12,367	92.2
2037	11,712	12,690	92.3
2042	11,979	12,939	92.6
2047	12,198	13,109	93.1
2052	12,359	13,203	93.6
2057	12,478	13,247	94.2
2062	12,564	13,249	94.8

*Estimates

Source: 1981 to 2012 figures from the Department of Census and Statistics and rest from De Silva and de Silva (2015)

4.5. Age structure

It should be noted that children less than 15 years of age are the most susceptible to the assumptions that have been utilized in all three projection scenarios. Their numbers will depend on the key determinants affecting the changes in fertility, namely the changes in the number of women of reproductive ages and changes in infant and child mortality.

The projected numerical size and percentage of children less than 15 years of age are shown in Table 4. The volume of the child population is expected to increase further in the coming years and even by 2027, the volume of the child population is higher than the corresponding value observed in 2012. However, because of the assumed decline in fertility, by 2032 their number would be reversed back to 5 million mark, which is fairly equal to the figure reported in 2012. As fertility is expected to decline marginally, after 2027 the numerical size of the child population would stabilize at 4.8-5.1 million during 2030s and 2040s. However, beyond 2042, the child population will continue to decline significantly and would reach 4.3 million by end of the projection period.

The proportion of the child population aged less than 15 years was 25.2 per cent at the commencement of the projection in 2012 and is expected to decline steadily over the projection period (Table 4). The proportion would decline to 24.9 and 21.4 per cent in 2017 and 2032 respectively. The increase in life expectancy, particularly among the elderly groups, hides the effect generated by the increase in fertility. It should be noted that as fertility is expected to decline gradually to a TFR of 1.78 and remain at that level during 2050s and 2060s (see Annexure A), the proportion of under 15 age category would change significantly, but remain around 17 per cent of the total population. Projected population by age and sex for selected years is shown in Annexure C.

Table 4: Number and percentage distribution of the population by three broad age groups, 2012 to 2062: Standard Projection

Year	Children (<15 years)		Working age (15-59 years)		Elderly (60+ years)	
	No ('000)	%	No ('000)	%	No ('000)	%
1981	5,226.6	35.2	8,638.3	58.2	981.8	6.6
2001*	4,981.3	26.5	12,105.4	64.4	1,710.6	9.1
2012	5,132.0	25.2	12,708.0	62.4	2,521.0	12.4
2017	5,295.4	24.9	12,947.4	60.9	3,029.0	14.2
2022	5,270.9	23.9	13,194.8	59.7	3,621.6	16.4
2027	5,214.8	22.9	13,401.2	58.7	4,196.3	18.4
2032	5,027.7	21.4	13,695.1	58.4	4,737.7	20.2
2037	4,916.7	20.5	13,895.8	57.9	5,201.0	21.7
2042	4,830.0	19.8	13,874.8	56.8	5,740.1	23.5
2047	4,714.4	19.0	13,991.9	56.5	6,048.5	24.4
2052	4,560.6	18.3	14,195.7	56.9	6,198.2	24.8
2057	4,406.5	17.6	14,300.3	57.0	6,373.7	25.4
2062	4,286.6	17.0	14,346.9	57.1	6,512.3	25.9

*Estimates

Source:

1981 to 2012 figures from the Department of Census and Statistics and the rest from De Silva and de Silva (2015)

4.6. Growth of youth and elderly population (1981 to 2042)

4.6.1. Youth

During the past couple of decades, the youth population (age 15-29 years) of Sri Lanka changed significantly – Sri Lanka defines youth as persons age 15-29 years (Ministry of Youth Affairs and Skills Development, 2014). Its size peaked, in recoding 5.1 million in 2001 and by 2012 it has reduced to 4.7 million (Table 5). However, the size of the youth population increased from 4.4 million in 1981 to 5.1 million by 2001. In other words, over this period, the size of the youth population has increased almost by 16 per cent. The special attention and focus shown towards this segment of the population in Sri Lanka during the past couple of decades are primarily due to the recognition of this phenomenon, which is the rapid increase of the volume of the youth population during the past decades (Figure 1).

Table 5: Youth population by age, 1981-2042

Age Group	Unit	1981	2001*	2012	2017	2022	2027	2032	2037	2042
15-19	%	10.8	9.7	8.1	7.6	7.7	7.4	7.6	7.1	6.7
20-24	%	10.2	9.4	7.5	7.5	7.1	7.3	7.1	7.4	6.9
25-29	%	8.6	7.9	7.6	6.9	6.9	6.7	7.0	6.8	7.2
15-24	%	21.0	19.1	15.6	15.1	14.8	14.7	14.7	14.5	13.7
Pop (15-24)	Million	3.1	3.6	3.2	3.2	3.3	3.4	3.5	3.5	3.4
15-29	%	29.6	27.0	23.2	22.0	21.8	21.4	21.7	21.3	20.9
Pop (15-29)	Million	4.4	5.1	4.7	4.7	4.8	4.9	5.2	5.2	5.2
Total Pop	Million	14.8	18.7	20.4	21.3	22.2	23.0	23.7	24.4	24.9

*Estimates

Source:

Figures up to 2012 from the Department of Census and Statistics, 2017 to 2062 from De Silva and de Silva (2015)

Visualized outlook for growth of youth population based on population projections show that even by the year 2017, their size remains more-or-less at the same value as of 2012 (Figure 1 and Table 5).

Interestingly from 2017 the size of the 15-29 youth population would start to increase numerically and by 2032 it would reach again 5.2 million, and that large volume remains the same until year 2042. As to the projection results, the size of the youth population during the 2030s and 2040s would be even higher than the level reported in year 2001.

The size of the youth population by 2032 (by about another 8 years' time) would be half a million higher than what we enumerated in 2012 (Figures 1 and Table 5). Consequent to this the increase of the youth population during the period 2017-2032 and 2017-2042 would be as high as 10 and 11 per cent respectively.

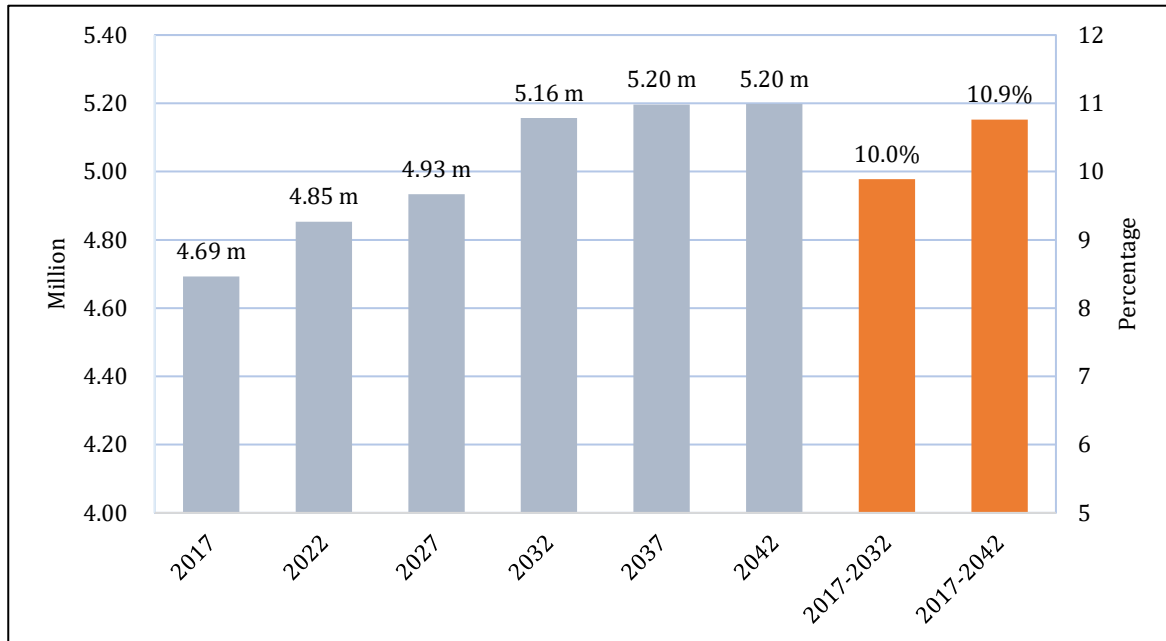


Figure 1: Increase of youth population (age 15-29 years) from 2017 to 2042 and their percentage increase during 2017-2032 and 2017-2042

Source: De Silva and de Silva (2015)

What is important to identify from the population projection results is that the volume of youth population during the period of 2022 to 2042 would be higher than what is experienced in 2017. In other words, during the first two decades of the present century the lowest youth population, that is 4.7-4.8 million was noted (Figure 1 and Table 5).

Although the volume of the youth population (age 15-29 years) is expected to increase in the succeeding decades, youth as a proportion of the total population is on the decline. This proportion reached its peak by recording 29.6 per cent in 1981. However, by 2001 and 2012 the corresponding proportions had declined to 27 and 23.2 per cent respectively. At present (2022), it has further declined to 21.8 per cent. The proportion of youth to the total population would remain at a more-or-less stable level of 22 per cent during the 2020s and early 2030s, however, beyond that, it would decline significantly. This declining trend in youth population is primarily due to the rapid ageing process (De Silva, 1994b; 2014b) that Sri Lanka will experience in coming decades (Table 5 and Figure 1).

Once the alternative definition of youth (age 15-24 years) is taken, the largest youth cohort in the history of the enumerated Sri Lankan population was experienced in 2001 with 3.6 million (Table 5). Between 2001 and 2012, the youth population declined from 3.6 to 3.2 million. Although by 2012 the size of the youth population has declined to 3.2 million, the same size would remain until 2017. Interestingly, from 2017 youth population of age 15-24 years, would start to increase again. By the 2030s their size would increase to 3.5 million. Compared with the enumerated youth population of 3.2 million in 2012, over a 9 per cent increase would occur by 2032. However, beyond 2032 their size would decline marginally.

During the period between 1981 and 2012, the highest proportion of youth (age 15-24 years) was noted 1981. By 2012 the corresponding proportion has declined to 15.6 per cent of the total population (Table 5). The projection results indicate a decline in the proportion of youth in succeeding years. However, it is important to observe the fact that the proportion of youth (15-24) would remain more or less the same magnitude of 14.8 per cent during 2020s and 2030s (Table 5).

4.6.2. Sex structure of youth population

The sex structure of the youth population (age 15-29 years) has also changed significantly during the past many decades. The male youth population, which was 2.2 million in 1981 increased to 2.5 million by 2001 (Table 6). However, between 2001 and 2012 the size of male youth declined. Although the same pattern could be observed among the female youth population, the change is noted to be less significant. For instance, during 2001 and 2012 male youth population declined by 233,000 persons while the corresponding decline among females was observed to be 104,000 persons only. In other words, the decline of male youth is more than that of female youth.

Why is it that, the male youth population has declined at a much higher rate than the female population? What are the future trends in the male and female youth populations in future decades? As per the projected information, the size of male youth population would not change significantly from the period 2012 to 2017, however, beyond that, it is expected to increase to 2.6 million by 2032 (Table 6). The female youth population would also remain more or less at the same volume during 2012-2017, but beyond that, a significant increase would be expected.

Table 6: Distribution of youth population by sex, 1981-2042

Year	Male ('000) (15-29 yrs.)	Female ('000) (15-29 yrs.)	Total ('000) (15-29 yrs.)	Sex Ratio of youth
1981	2,211	2,183	4,394	101.3
2001*	2,538	2,528	5,066	100.4
2012	2,305	2,424	4,729	95.1
2017	2,308	2,386	4,694	96.7
2022	2,413	2,441	4,854	98.9
2027	2,462	2,472	4,934	99.6
2032	2,580	2,577	5,157	100.1
2037	2,609	2,587	5,196	100.8
2042	2,624	2,574	5,198	101.9

*Estimates

Source:

1981 to 2012 figures from the Department of Census and Statistics and the rest from De Silva and de Silva (2015)

4.6.3. Sex ratio

In 1981 and 2001 the sex ratio of youth (age 15-29 years) was more favourable to males. However, the youth sex ratio has declined to 95 males per 100 females by 2012, which is the lowest ever reported value in Sri Lanka. Why the size of the male youth enumerated in 2012 is significantly lower than the corresponding size of the females or why is the lowest sex ratio of youth observed in 2012? It is worth noting that from 1983 to the middle of 2009 due to civil disturbances, a large volume of male youth got killed or committed suicide and another larger number of them than female youth migrated out of Sri Lanka legally or illegally. Also due to road and occupation-related accidents more male youth tend to die than their female counterparts (De Silva, 2015). The shortage of men identified in Sri Lanka in 2012 is primarily caused by these factors. However, since 2012 the youth sex ratio is changing in the opposite direction (Table 6).

Interestingly, after the end of the civil strife in mid-2009 male mortality (for details pl. see Appendix A) and outmigration, particularly irregular migration has reduced significantly (De Silva 2015; De Silva and de Silva 2015). Thus, by another 10 years' time (2030s) male youth favoured sex ratio would emerge in Sri Lanka. For instance, youth sex ratio in 2032 would be 100.1; slightly more male youth than female youth would be expected.

It is important to note from table 6 that although the sex ratio of youth would increase from 2012, the opposite would appear within the total population of Sri Lanka. In 2012 for every 100 females there were 94 men, and in the coming years, the shortage of men in the total population would aggravate further. The higher volume of females in the total population compared to the males, is primarily due to the higher life expectancy the females enjoyed since the early 1960s and that pattern would remain more or less the same in the succeeding decades.

4.7. Growth of the elderly population

The elderly population (60+ years) in almost all the countries in the developing world is expected to rise significantly in the coming decades. Although in Sri Lanka only less than one million elders were identified in 1981 their number rose to 1.7 million by 2001 (Table 4). The elderly population of 2.5 million enumerated in 2012 is expected to increase to 5.2 million by 2037 – doubling over 25-year period. Consequent to the declining trend in fertility and rising life expectancy in the coming years in Sri Lanka, particularly during the 2042 and 2062, there will be 5.7 million and 6.5 million elders respectively in the population (Table 4).

Along with the rise of the elderly, their proportion to the total population, a strong linear increase is visible in Sri Lanka – the proportion of the elderly rose from 6.6 per cent to 9.1 per cent throughout 1981 and 2001 respectively (Table 4). The elderly comprising 12.4 per cent of the total population in 2012 would increase to 16.4 per cent by 2022. By 2042, almost one out of every four persons (24 per cent) in Sri Lanka is expected to be elderly persons. Demonstrating the effect of the demographic transition occurring in Sri Lanka, during the latter part of the 21st century about one-third of the Sri Lankan population would be elderly (De Silva, 2014a).

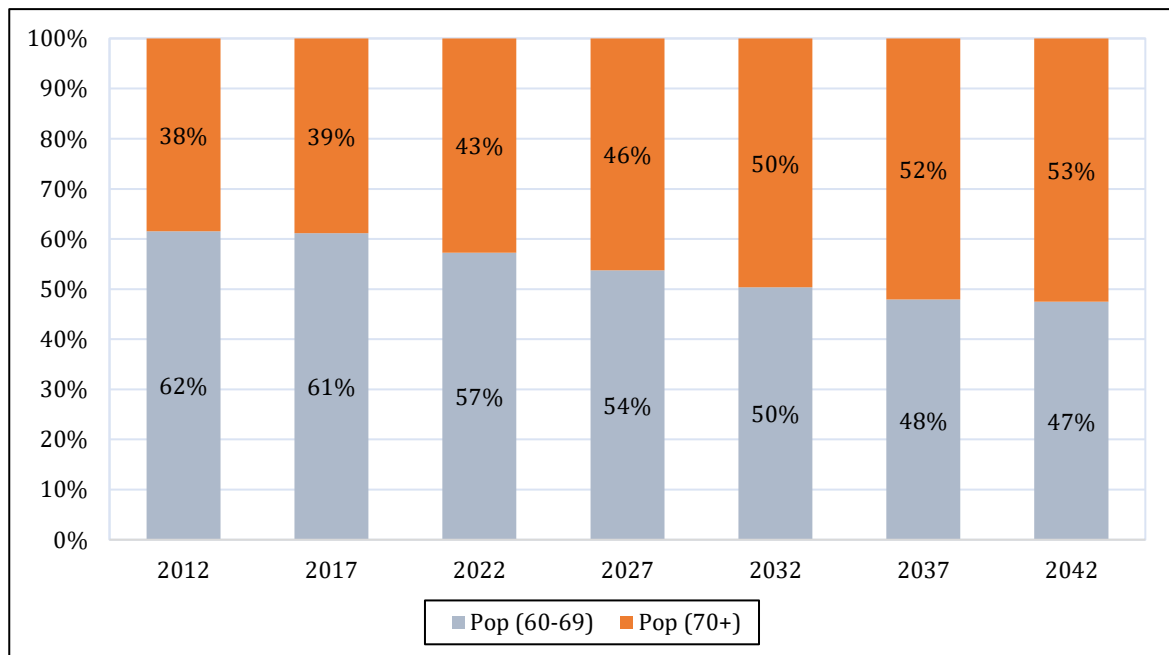


Figure 2: Structure of the elderly population by age 60-69 and 70+ years, 2012-2042
 Source: 2012 figures from the Department of Census and Statistics and the rest from De Silva and de Silva (2015)

Once the enumerated and projected elderly populations were grouped into two categories, namely ‘young-old’ (age 60-69 years) and ‘old-old’ (age 70+ years) an interesting demographic scenario emerged in Sri Lanka. As of the 2012 Census data the proportion of ‘old-old’ was only 38 per cent of the total elderly population in Sri Lanka (Figure 2). The proportion of this elderly (age 70+ years) group is projected to increase by 46 per cent and 53 per cent in 2027 and 2042 respectively. Along with the rise in life expectancy, it is expected for this ‘old-old’ category to increase among the future elderly populations of Sri Lanka. Also, an increasing proportion of female widows will be surviving in this ‘old-old’ category than the males, due to female favoured life expectancy at advanced ages in Sri Lanka.

4.8. Youth, elderly and other key population groups

Although ageing of the Sri Lankan population continues, even in 2022 the proportion of children in the population would be outnumbered by the elderly (Figure 3). However, between 2032 and 2037 the above pattern would change in the opposite direction. In 2035 the child percentage and elderly percentage in the Sri Lankan population would equilibrate at 21 per cent. However, beyond 2035 the percentage of elderly will increase significantly and the percentage difference between elderly and children will be wider, in favour of elderly. For instance, by 2042, the proportion of elderly (23.1 per cent) would be 3.4 percentage points higher than the corresponding child proportion.

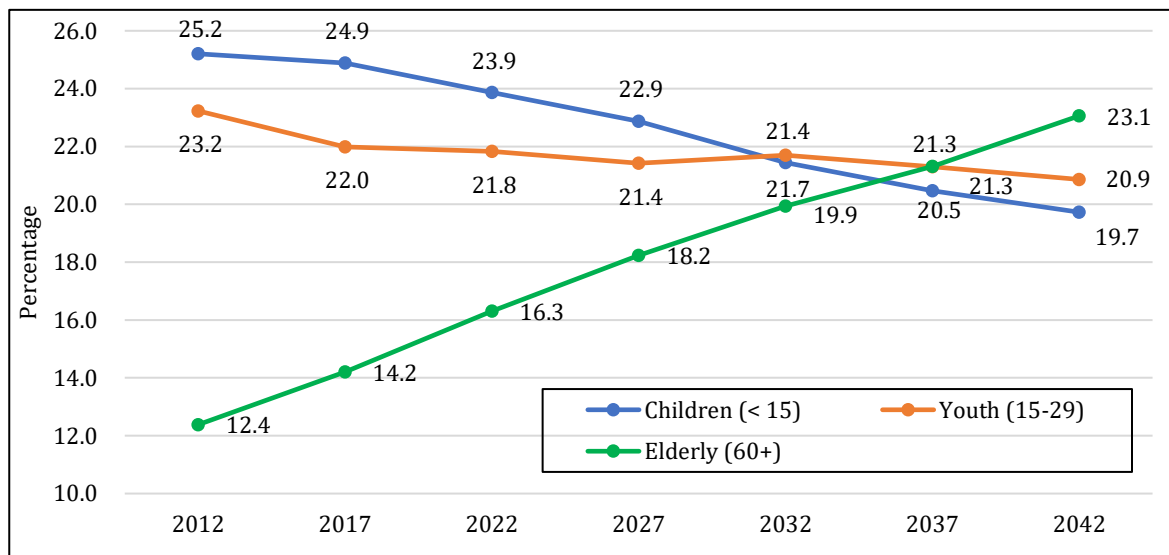


Figure 3: Relative size of children (< 15 yrs.), youth (15-29 yrs.) and elderly (60+ yrs.) populations, 2012-2042

Source: 2012 figures from the Department of Census and Statistics and rest from De Silva and de Silva (2015)

In contrast to the child population, the working age population between 15 and 59 years of age will continue to increase numerically during the entire projection period. The working age population which was 8.6 million in 1981 increased to 12.7 million by 2012 (Table 4). The enumerated working age population amounting to 64.4 per cent of the total population in 2001 is observed to be the peak, when compared with the working age proportions of the population of later time intervals, computed for the entire 21st century. Beyond 2001 the percentage of working age population would decline gradually and reach 58.4 per cent and 57.1 per cent by 2032 and 2062 respectively (Table 4).

The projected numerical size of the youth population in Sri Lanka is compared with children (less than 15 years of age), youth (15-29 years), matured adults (30-59 years) and the elderly (60 and more years) and the results are shown in Table 7. The child population of 5.1 million enumerated in 2012 is expected to increase to 5.3 million by 2017. However, due to assume a decline in fertility, by 2032 their number would be about 5.1 million, which is matched with their size recorded in 2012 (Table 7). Of the four age groups considered in table 7, only the child population is expected to reach a negative growth of -4.0 per

cent over the period 2017-2032. As fertility is expected to decline in coming years, after 2032 the numerical size of the child population will stabilize around 5 million during 2030s and 2040s.

Table 7: Change in volume of children, youth, matured adults and elderly, 2012-2042

Age group	Population (million)							Change 2017-32	
	2012	2017	2022	2027	2032	2037	2042	Million	%
< 15	5.13	5.31	5.31	5.27	5.10	4.99	4.92	-0.21	-4.0
15-29	4.73	4.69	4.85	4.93	5.16	5.20	5.19	0.47	10.0
30-59	7.98	8.31	8.44	8.64	8.77	9.01	9.06	0.46	5.5
60+	2.52	3.03	3.63	4.20	4.74	5.20	5.75	1.71	56.4
Total	20.36	21.34	22.23	23.04	23.77	24.40	24.92	2.42	11.4

Source: 2012 figures from the Department of Census and Statistics and rest from De Silva and de Silva (2015)

As already highlighted, the youth population (age 15-29 years) is expected to decline from 4.73 million in 2012 to 4.69 million by 2017. Since then, their volume is expected to increase significantly. Thus by 2032 or by another 10 years' time, it would reach the 5.2 million. Thus throughout 2017-2032, the youth population would increase almost by one-half million. In other words, the volume of youth is expected to increase by 10 per cent throughout 2017-2032 (Table 7). All the four age groups that appeared in the table are considered; except the elderly age group (60+ years) the youth (15-29 years) reported the highest increase in their volume throughout 2017-2032.

The matured adult (age 30-59 years) group is considered, their size is expected to increase only by 5 per cent throughout 2017-2032. Compared with the estimated growth rate in this group, the youth would record double that over the same period (last column of Table 7).

The elderly population who are 60 years and beyond is expected to change significantly. Close to one million elderlies were identified in 1981, and their proportion to the total population was only 6.6 per cent (Table 4). The proportion has increased gradually during the past many decades. The elderly population of 2.5 million enumerated in 2012 is expected to increase to 4.7 million by 2032, which will be almost doubled during the immediate 20-year period (Table 7). In terms of the proportion of elderly to the total population, a strong linear increase is visible, indicating that the elderly population comprising 12.4 per cent of the total population in 2012 would increase to 22.2 per cent by 2032. By 2022, one out of every five persons in Sri Lanka is expected to be an elderly person.

The ageing phenomenon is an unavoidable demographic issue in the latter period of the demographic transition of any country. Demonstrating the effect of the demographic transition occurring in Sri Lanka, among all four age groups investigated in table 7, the elderly population reported the highest percentage increase. Throughout 2017-2032 elderly population is expected to increase by 1.71 million or by over 56 per cent.

In the year 2022 total population of the country would be around 22.2 million. This volume is expected to increase to 23.8 by 2032. In percentage terms, the total population is expected to increase by 11.4 per cent over the next 15 years (Table 7). In other terms, the average annual rate of growth of the total population would be 0.72 per cent over the period 2017-2032.

However, due to the unexpected behaviour of demographic drivers (births, deaths and migration) observed in present Sri Lanka, the size of the child population and total population would be lower than the corresponding projected figures presented in this article.

5. Discussion

The pattern of changes in demographic components had caused irreversible changes to the population age-sex structure in Sri Lanka - within next few decades, would turn the pyramid shape-population age-

structure to a barrel shape one. The population is changing into a female favoured sex ratio further beyond the present value. Of the various segments of the population, elderly (60+ population) are expected to rise both their volume as well as the proportion to the total population. This phenomenon has emerged with the rapid increase in life expectancy of elderly persons and significant decline observed in fertility during the latter part of the 20th Century (De Silva, 1994b; De Silva et al., 2010; Perera, 2017). As same with elderly, the volume of youth population (15-29 years) is also expected to increase significantly in coming decades due to the unexpected fertility increase observed during the past 10-15 years.

The proportion of the elderly population in Sri Lanka has increased steadily during the past many decades. The proportion has already doubled in 2012 from 1971. The share of elderly will increase rapidly to around one fourth of the total population in 2042 which will be a real burden for the future Sri Lankan society. The life expectancy at birth of females is higher than males, as a larger number of females survive to old age compared to males. Therefore, as with the total population of Sri Lanka, the elderly is also increasingly becoming disproportionately female.

The elderly population will reach to 5 million mark by 2034, which exactly doubling the elderly population after 22-year period. Although the population of Sri Lanka is very unlikely to be doubled that would not be true with the elderly population. Within the South Asian context, Sri Lanka noted to be the most rapidly ageing society followed by Iran, where the proportion of elderly is expected to increase from 8.4 per cent in 2012 to 23.1 in 2042. Within South Asia at present, India records the 3rd highest elderly proportion and by 2042 it will be over 17 per cent. However, the volume of elderly in India at a given point in time will be an enormous number compared to any country in the region (Tiwari, et al. 2020).

Table 8: Proportions of elderly (60+) population in South Asian Countries 2012-2042

Country	Proportion to the total population (%)						
	2012	2017	2022	2027	2032	2037	2042
Afghanistan	3.8	3.8	3.8	4.1	4.5	5.0	5.5
Bangladesh	7.0	8.0	9.3	10.7	12.6	14.7	17.1
Bhutan	7.8	8.7	9.3	10.3	11.9	13.8	16.9
India	8.2	9.4	10.5	11.9	13.5	15.3	17.2
Iran	8.4	9.8	11.6	13.7	16.3	19.1	23.1
Maldives	5.9	6.3	7.8	10.4	13.6	17.3	22.4
Nepal	7.8	8.7	9.0	9.6	10.3	11.3	12.6
Pakistan	5.8	6.3	6.8	7.2	7.5	7.9	8.4
Sri Lanka	12.5	14.4	16.7	18.8	20.8	22.4	24.7

Source: World Population Prospects 2022, Dept. of Economics and Social Affairs, Population Division, United Nations

Apart from the elderly, in the Sri Lankan demographic environment, the rapid expansion of the youth population (15-29 years) would bring another set of challenges to the Sri Lankan authorities in coming years. Its size peaked recorded in 2001 and shown a slight reduction of observed numbers in 2012. Interestingly, since 2017 the size of the youth population, would start to increase numerically and by 2022 it would reach 4.8 million. However, significant growth in youth population could be expected by 2032 with 5.2 million, and this large volume would remain with the same numbers until 2042. The size of the youth population by 2032 (by about another 8 years' time) would be one-half million higher than the number in enumerated in 2012.

Although the volume of youth population is expected to increase in the succeeding decades, youth as a proportion of the total population is on decline. The proportion of youth to the total population would remain at more-or-less a stable level of 22 per cent during the 2020s and early 2030s, however, beyond that, it would decline significantly. This declining trend in the youth population is primarily due to the rapid ageing process that Sri Lanka will experience in the coming decades (De Silva, 2015; De Silva and de Silva, 2015).

Why would a youth bulge re-appear in the coming decades? Several reasons could be attributed to supporting this trend. First, the upturn in fertility was observed during the past 15-20 years (De Silva et al., 2010; De Silva, 2015). Second, unlike the period 1983-2009 (civil strife) between 2010 and 2021, relatively a smaller number of youths has migrated to foreign countries, particularly an in irregular manner. Third, since 2009 there has been a significant improvement, the youth survival, particularly in the case of males. As consequence of these particular reasons, Sri Lanka would experience the re-emergence of youth bulge in the coming years.

A youth bulge which would emerge in the early 2030s would further aggravate the present unemployment among youth in Sri Lanka. As of 2021, male and female youth unemployment rates observed to be 14.5 and 27.1 per cent respectively (Department of Census and Statistics, 2022). Along with economic recession, the country is expected to face a greater challenge in generating more employment opportunities to the youth bulge. Also, if out flow of Sri Lankan labour migrants drop significantly, unemployment among the Sri Lankan youth may further increase significantly. This may lead to aggravation of frustrations among youth, with the likelihood of culmination in insurrections, as noted in the 1971 and 1987-89 era (Regional Centre for Strategic Studies, 2019). The unrest and subsequent strong protest made by youth observed during the early part of 2022, which culminated up with removal of then President of Sri Lanka and changes in political system, highlights the frustration and aggression among them.

The demographic transition experienced in Sri Lanka has not been uniform, nevertheless, the current phase of change indicates that the Sri Lankan demographic environment is conducive to rapid economic development, given the condition that necessary socio-economic policies are in place to achieve the maximum benefit of the situation. This “demographic dividend” could also be identified as the “window of opportunity”, implying that the time horizon of the opportunity is limited to about another 10-15 years only. Although the dividend would be available for another short period, the remaining period is relatively not attractive to the period that has already lapsed. The mere existence of a favourable demographic dividend would not be effective without a proper environment for economic acceleration. Nevertheless, in a congenial environment of political stability, adequate savings, investment potential, the ability to attract FDI, development of human capital, productivity and knowledge-based economy, the optimum utilization of the demographic dividend to gain economic acceleration would materialize (De Silva, 2012).

India in South Asia, which is the most populous country in the world, has experienced the onset of the first demographic dividend in 2015. The dividend of India would continue up to the middle of the present century, depending on how India’s demographic dynamics would change during following few decades. Due to the diversity of India, the overall bonus is expected to spread thinly over a long period of time. However, India would face a significant challenge in providing suitable employment opportunities to its’ enormously expanding working age population.

It is a fact that population changes are mainly driven by fertility, mortality and migration, hence the impact of the recent COVID-19 and economic recession on demographic trends is clearly important to understand the future population structures. During 2020-22 period 16,817 Covid deaths were reported, the majority (14,763 deaths) occurred in the year 2021 and only 199 deaths occurred in 2020

(Epidemiology Unit, 2023). Of 16,817 deaths 56 per cent were male, and 77 per cent were in older ages of 60+ years. A trend of gradual increase is shown in total annual deaths from 2012-19 period with an annual average of 138 thousand and was a sudden drop in year 2020 (132,431 deaths). And again, the numbers increased sharply to 163,963 and 179,792 deaths in 2021 and 2022 respectively purely with the effect of the pandemic and economic recession.

The trend in annual births has shown a downward trend since 2007, the first time it reached below the 300 thousand mark in 2021 (284,848 births) and further reduced to 275,321 births in 2022. The Crude Birth Rate (CBR) is shown a clear decline starting 16.8 to 12.4 per 1000 population from 2012 to 2022. When consider marriages, it was a drop in total annual marriages in year 2020 (143,061 marriages) compare to 171 thousand average annual marriages from 2012 to 2019. The numbers have again reached to the previous average figures in 2021 and 2022 (162,628 and 171,140 marriages). It seems to be marriages were planned in 2020 have been postponed and occurred in next succeeding years due to shut down of country time to time (Registrar General's Department, 2023). These new trends definitely be affecting the projected population figures, particularly children - their numbers are declining, as a result, the elderly proportions would be rising significantly further in the coming years.

6. Conclusion

With the increase in life expectancy, "old-old" age category (70+ years) is to increase among the future elderly populations. The most affected by the transition would be the 'old-old' elderly who need special care in-terms of health, companionship and psychological support. An emerging population issue in the future will be the destitution and poverty of the elderly. The longevity of the females makes them the most affected segment of the society and the households will need to incur extra expenses to maintain the old aged persons in their homes. On average, every family will have one aged person to take care. Given this situation, elderly support systems have to be established which would require allocation of adequate funds to take care of old-aged persons. It would be needed to provide for their health services, pensions and social security. The social security net and the needed institutional set up to cover this segment is either inadequate or still lacking in the government and the private sector. However, supporting the rapidly increasing elderly population will be a serious challenge to the State as well as for individual families in Sri Lanka primarily due to the impacts of Covid-19 and the economic recession, where the livelihood activities of the elderly had been affected much more than any other segment of the Sri Lankan population.

The emergence of youth bulge in Sri Lanka should not be consider as a barrier in development, but as an opportunity to enhance the development process of the country. Appreciation of this phenomenon, while addressing the relevant challenges would prove beneficial to Sri Lanka, not just in economic terms, but also socially as a means of peace and reconciliation. In this backdrop, policy reform is an immediate need, to capitalize on the full potential of Sri Lankan youth for the development of the country through harnessing the existing last phase of the demographic dividend successfully.

Apart from significant changes in births, deaths and marriages during the last 3 years, currently international net migration seems to be outward due to student, technical and professional migrants. Although there are no official numbers of out-migration, when the people leaving are of reproductive age as usual, emigration causes the fertility rate to fall even further.

Presumably, the overall impact of the unexpected behaviour of the demographic drivers on the Sri Lankan population needs to be assessed with more recent data, particularly with the planned 2024 population census information. However, the available data indicates a significant drop in fertility, a rise in mortality and out bound migration. The combined effect of these drivers will contribute for a significant drop in population growth, child population and the rapid ageing process in Sri Lanka.

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Annexure A

Projection terminology

The cohort component method, which involves a sequence of computations that are repeated for successive five-year time intervals, is used for projecting the future trends of the Sri Lankan population. These computations are based on assumptions on future demographic conditions to update the age and sex structure of the population and to derive various indicators of the population size, structure and changes.

The projections are purely based on the assumptions made on future demographic components (fertility, mortality and migration) to update the age and sex structure of the population. It helps to derive various indicators of the population size, growth, structure and changes. However, before preparing assumptions for fertility, mortality and migration past trends of these components are analysed in detail.

A simple combination of the standard assumptions on fertility, mortality and international migration with the base year population of 2012 will produce a standard population projection. Alternatively, the same growth components favouring high population growth patterns will produce a high forecast and the combination favouring low growth patterns will produce a low forecast. Of the three projections, the most plausible future population is presented in the standard population estimate, while high and low predictions indicate the possible upper and lower bounds. It should be noted that when the period of the projection period is longer, the difference between high and low projected figures is getting wider. Assumed values for TFR, Life Expectancy at Birth (Male & Female) and Net Migrants (Male & Female) for the projected period in 5 year intervals are given in the below table.

Assumptions used for fertility, mortality & migration under three different projection variants

Component	Variant	2012-2017	2017-2022	2022-2027	2027-2032	2032-2037	2037-2042	2042-2047	2047-2052	2052-2057	2057-2062
Total	High	2.52	2.44	2.37	2.30	2.25	2.21	2.18	2.15	2.13	2.13
Fertility Rate (TFR)	Standard	2.40	2.29	2.19	2.10	2.01	1.92	1.85	1.80	1.78	1.78
	Low	2.28	2.13	2.00	1.88	1.76	1.66	1.57	1.49	1.43	1.43
Life Expectancy at Birth (Male)	High	72.0	74.0	75.6	77.2	78.3	78.9	79.6	80.2	80.8	81.6
	Standard	71.4	73.1	74.6	76.0	77.0	77.5	78.1	78.6	79.1	79.8
	Low	70.9	72.4	73.7	75.0	75.9	76.4	76.9	77.3	77.7	78.4
Life Expectancy at Birth (Female)	High	78.6	80.5	82.1	83.3	84.0	84.2	84.4	84.6	84.8	85.4
	Standard	78.1	79.8	81.3	82.4	83.0	83.2	83.3	83.4	83.6	84.1
	Low	77.5	78.6	79.8	80.8	81.3	81.6	81.8	81.9	82.0	82.3
Male Net Migrants ('000)	High	-137.0	-110.0	-80.0	-50.0	-25.0	-5.0	0.0	0.0	0.0	0.0
	Standard	-145.0	-125.0	-100.0	-70.0	-45.0	-25.0	-5.0	0.0	0.0	0.0
	Low	-153.0	-140.0	-120.0	-95.0	-70.0	-45.0	-25.0	-5.0	0.0	0.0
Female Net Migrants ('000)	High	-69.0	-61.0	-49.0	-28.0	-10.0	0.0	0.0	0.0	0.0	0.0
	Standard	-75.0	-70.0	-60.0	-42.0	-25.0	-10.0	0.0	0.0	0.0	0.0
	Low	-82.0	-78.0	-70.0	-56.0	-38.0	-24.0	-12.0	-5.0	0.0	0.0

Source: De Silva and de Silva (2015)

Annexure B**Single-year population (in millions) by sex, 2012-2042: standard projection**

Year	Male	Female	Total
2012	9.9	10.5	20.4
2013	9.9	10.6	20.5
2014	10.0	10.7	20.7
2015	10.1	10.8	20.9
2016	10.2	10.9	21.1
2017	10.3	11.1	21.4
2018	10.4	11.2	21.6
2019	10.5	11.3	21.8
2020	10.5	11.4	21.9
2021	10.6	11.5	22.1
2022	10.7	11.5	22.2
2023	10.8	11.6	22.4
2024	10.8	11.7	22.5
2025	10.9	11.8	22.7
2026	11.0	11.9	22.9
2027	11.1	12.0	23.1
2028	11.1	12.1	23.2
2029	11.2	12.1	23.3
2030	11.3	12.2	23.5
2031	11.3	12.3	23.6
2032	11.4	12.4	23.8
2033	11.5	12.4	23.9
2034	11.5	12.5	24.0
2035	11.6	12.6	24.2
2036	11.7	12.6	24.3
2037	11.7	12.7	24.4
2038	11.8	12.7	24.5
2039	11.8	12.8	24.6
2040	11.9	12.8	24.7
2041	11.9	12.9	24.8
2042	12.0	12.9	24.9

Source: 2012 figures from the Department of Census and Statistics and rest from De Silva and de Silva (2015)

Annexure C

Population (in thousands) by age and sex, 2012-2042: Standard projection

Age group	2012			2017			2022			2027			2032			2037			2042		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
00-04	879	865	1744	939	914	1853	893	866	1760	863	835	1698	849	820	1669	839	810	1649	821	791	1612
05-09	882	866	1748	865	857	1722	927	907	1834	884	861	1745	857	831	1688	845	817	1662	836	808	1644
10-14	829	811	1640	874	861	1735	858	853	1712	922	903	1825	881	858	1739	854	829	1683	843	816	1659
15-19	820	824	1644	818	806	1624	865	857	1722	852	849	1701	917	900	1817	877	856	1733	852	828	1680
20-24	742	791	1533	791	810	1601	794	793	1587	846	846	1692	838	842	1680	908	896	1804	872	854	1726
25-29	744	809	1553	699	770	1468	754	791	1544	765	777	1542	825	835	1660	824	835	1659	900	892	1792
30-34	797	843	1640	711	793	1503	671	755	1425	732	778	1510	749	768	1517	814	829	1643	818	832	1650
35-39	686	723	1409	778	833	1612	695	784	1480	659	748	1407	723	773	1496	743	764	1507	810	826	1636
40-44	662	698	1360	674	716	1390	768	827	1595	688	779	1467	653	744	1397	718	769	1487	739	762	1500
45-49	618	668	1286	654	693	1346	667	712	1379	761	822	1584	682	775	1457	648	740	1388	713	766	1478
50-54	581	638	1219	607	661	1268	644	687	1331	659	707	1365	752	817	1568	674	770	1444	640	735	1375
55-59	501	563	1064	560	626	1185	588	651	1238	626	677	1303	642	698	1340	733	807	1540	658	761	1419
60-64	425	492	917	468	545	1012	527	609	1136	557	636	1193	596	664	1260	614	685	1299	703	792	1495
65-69	284	350	634	377	464	841	420	519	939	479	584	1063	512	612	1125	552	641	1194	571	663	1234
70-74	182	231	413	233	316	549	316	425	741	358	481	839	415	546	961	449	575	1024	488	603	1091
75-79	116	167	283	133	193	326	175	271	447	243	372	615	283	426	708	333	486	819	364	513	877
80 & Over	108	166	274	109	195	303	123	239	363	160	328	488	224	460	683	285	580	865	351	698	1049
All	9856	10505	20361	10290	11051	21341	10687	11545	22232	11053	11983	23036	11398	12367	23765	11712	12690	24401	11979	12939	24918
Median Age	30.2	31.7	31	31.1	33.2	32.2	31.9	34.7	33.4	32.7	36	34.4	33.6	37.1	35.4	34.3	38.1	36.2	35.3	38.9	37.1
Summary																					
Under 15	2590	2542	5132	2678	2632	5311	2679	2626	5305	2670	2599	5269	2587	2509	5096	2538	2456	4994	2501	2416	4916
15-49	5069	5356	10425	5125	5420	10545	5214	5518	10732	5301	5600	10901	5387	5637	11024	5532	5690	11222	5703	5760	11463
50-59	1082	1201	2283	1167	1287	2454	1232	1337	2569	1284	1384	2668	1394	1514	2908	1407	1577	2984	1298	1495	2794
60+	1115	1406	2521	1320	1712	3032	1562	2063	3625	1798	2401	4199	2030	2707	4738	2234	2968	5201	2477	3269	5746

Source: 2012 figures from the Department of Census and Statistics and rest from De Silva and de Silva (2015)