

From Demographic Dividend to Silver Society: Lessons from Kerala and Japan's Demographic Transition

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ABSTRACT

One of the most important challenges faced in the 21st century is population ageing. When compared with other states in India, Kerala has entered the advanced stage of demographic transition. This study analyses the pattern of population ageing in Kerala and compares it with Japan, one of the world's most aged societies. The study makes use of secondary data sources such as Census reports, National Statistical Office publications, Kerala Economic Review, United Nations databases, and Japanese demographic reports, the study applies trend analysis to examine changes in elderly population, old-age dependency, fertility, life expectancy, and migration patterns.

Keywords: population ageing, Kerala, Japan, demographic transition, elderly population

Introduction

Population aging means there is an increase in the average age of the society because birthrate falls and life expectancies grow. In the global scenario the population of people aged 65 and above is increasing at a rapid rate. According to the Ministry of Health and Family Welfare, even though at present India has a young population, its population is expected to reach 230 million by 2036. This change is not uniform throughout the country. Northern states are relatively young compared to southern states where they are aging at an accelerated rate. This is specific with the case of Kerala, where according to the RBI report 18.1% of the people are already above 60 years. Thus Kerala always echoes Japan which is the most advanced super ageing nation as a model.

When compared to the rest of India, Kerala is ageing faster because of these distinct socio economic factors such as low birthrate, longer life expectancy and brain drain. Due to effective

family planning as well as high female literacy rates, Kerala's total fertility rate is 1.35 which is less than the national average of 2.1. With the case of life expectancy it is 74.9 years and also there has been an increase in migration of youth from the state to UK, USA, Gulf. With regards to ageing Japan is always considered a model because of its long term care insurance system, community integrated care system and the Ikigai philosophy where work places have been redesigned in such a way that older adults can maintain a sense of purpose.

Review of literature

Due to declining fertility rate population ageing is a major area of demographic research, this means an increase in share of elderly population. The United Nations states that Asian countries are experiencing demographic transformation because of the improvement in healthcare and longevity.

Rajan, Shajan, and Sunitha (2020) in their study states that there has been a significant change in Kerala's community and family structure due to population ageing and this has been reflected in elderly care, social support system and in the provision of health care. Mini (2008) found that the state's advance in demographic transition has resulted in an increase in health care and welfare intervention specifically for the elderly population. In Japan's case also the increase in elderly population has created significant pressure on health care and social security systems. According to MacKellar and Horlacher (2000), Japan is an important model for studying demographic ageing when countries experience the need for ageing proactive policies in healthcare, social security and elderly care management.

Objectives

1. To compare Kerala's population ageing transition with Japan's ageing experience.

Methodology

The study is based on secondary data collected from reliable sources such as Census of India, National Statistical Office (NSO), Kerala State Planning Board, United Nations demographic databases, Government of Japan reports, and OECD publications. A descriptive and comparative research approach is adopted to analyse the ageing transition of Kerala and Japan. Demographic indicators such as the percentage of elderly population, old-age dependency ratio, life expectancy, fertility rate, healthcare expenditure, and migration trends are examined over different time periods. To identify the long-term pattern of ageing, trend analysis using demographic data is applied. Comparative tables and graphical presentations are used to understand the similarities and differences between Kerala and Japan. The Japanese experience

is analysed to identify suitable policy measures that can be adapted to Kerala's social and economic conditions.

Population Ageing : Kerala and Japan

Table 1: Comparative Demographic Transition in Kerala and Japan: Ageing, Life Expectancy and Fertility Trends

	Population Aged 60+		Life Expectancy		Total Fertility Rate	
Year	Kerala	Japan	Kerala	Japan	Kerala	Japan
1981	7.5	9.3	66	76.4	2.4	1.74
1991	8.8	12.1	71.5	79.1	1.8	1.34
2001	10.5	17.5	73.5	81.5	1.7	1.33
2011	12.6	23.3	74.2	82.7	1.6	1.39
2021	16.5	28.9	75.1	84.5	1.4	1.3

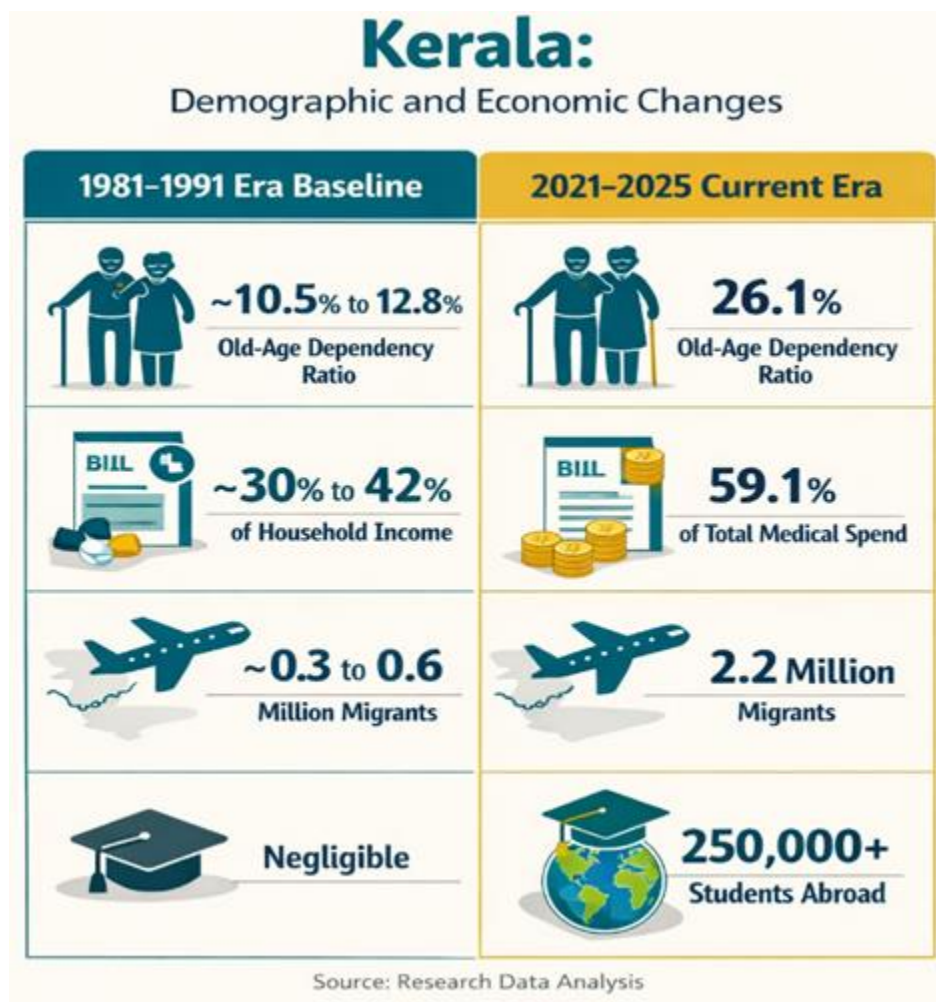
Source: Kerala data compiled from Census of India, National Statistical Office (NSO) *Elderly in India Reports*, Kerala State Planning Board *Economic Review*, and Sample Registration System (SRS) Life Tables. Japan data compiled from the Government of Japan *Annual Report on the Ageing Society*, Statistics Bureau of Japan, and OECD demographic indicators. Fertility indicators are based on United Nations Population Division and World Bank demographic databases.

The table indicates a clear pattern of demographic transition in both Kerala and Japan, although the two regions are at different stages of ageing. Japan experienced population ageing earlier and more rapidly, with the share of elderly population increasing from 9.3 per cent in 1981 to 28.9 per cent in 2021. Kerala also shows a strong ageing trend, with the elderly population rising from 7.5 per cent to 16.5 per cent during the same period. This indicates that Kerala is moving towards an ageing structure similar to Japan, though with a time lag.

The increase in elderly population in both regions is closely associated with improvements in life expectancy and declining fertility rates. Kerala's life expectancy increased from around 66 years in 1981 to 75.1 years in 2021, while Japan achieved a much higher increase from 76.4 years to 84.5 years. At the same time, fertility declined significantly in both regions. Kerala's Total Fertility Rate declined from 2.4 children per woman in 1981 to 1.4 in 2021, while Japan remained below replacement level throughout the period.

The combined effect of increasing longevity and declining fertility has accelerated population ageing. However, Japan reached a more advanced ageing stage due to its earlier fertility decline and higher longevity. Kerala's current demographic trajectory suggests that it may face similar challenges in the future, particularly in healthcare demand, elderly care, pension support, and old-age dependency management. The Japanese experience therefore provides important lessons for Kerala in developing long-term care systems, active ageing programmes, and social protection mechanisms.

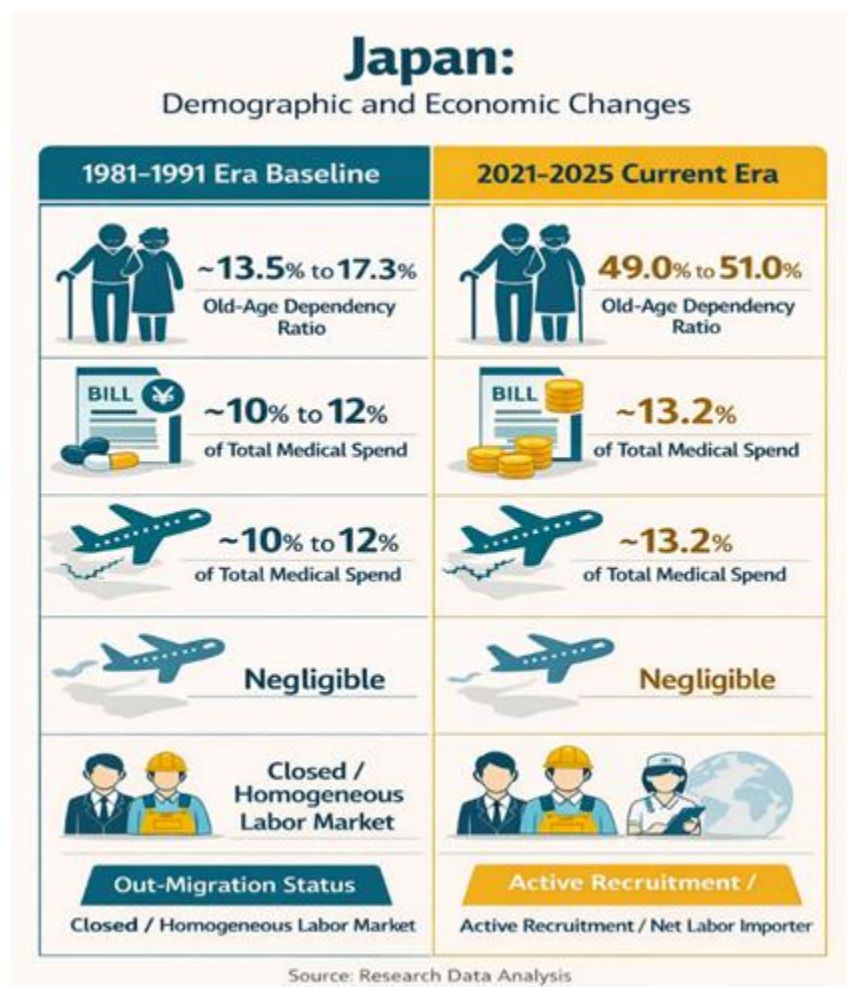
Figure 1 Kerala Demographic, Health, and Migration Shift (1981–2025)



Data Sources: Census of India (Demographic Tables); Centre for Economic and Social Studies (CESS) Archives; National Health Accounts (NHA) India; Kerala Migration Survey (KMS) Series via GIFT / IIMAD; The Hindu Higher Education Data Tracker.

During the 1980s Kerala was a young state, where the migration to gulf countries began. The fertility levels begin to decline after 1987 which is a reason for structural demographic change. When we look at 2025, the dependency ratio of elderly people doubled, which made Kerala India's fastest ageing state. There has also been a change of migration from that of a temporary labour to that of a permanent youth brain drain. This population ageing is accompanied with chronic health issues and increasing medical expenses to 59.1% due to excessive reliance on the private sector.

Figure 2. Japan Demographic, Health, and Labor Shift (1981–2025)



Data Sources: World Bank Population Indicators / Our World in Data; OECD Health Finance Database / Financial Trackers; Japan Ministry of Justice Records / OECD Labor Data; Japan Immigration Services Agency.

Japan has been transformed from a robust self sustaining industrial economy into a super aged society. When compared to Kerala Japan has not experienced a mass out migration due to strong

domestic economic growth of the 1980s. But there has been a rapid increase in the aged population such that only two working adults support each senior by 2025. To handle this crisis without disrupting households, Japan implemented strict regulatory caps and comprehensive national long-term care insurance, keeping citizen out-of-pocket health costs stable near 13%. To solve severe domestic labor shortages, Japan's policy flipped from keeping its labor market closed to actively recruiting foreign workers.

Demographic dividend: Japan and Kerala

The term demographic dividend refers to the accelerated economic growth that is a direct outcome of a rapid decline in a country's fertility and the subsequent change in the population age structure. The first shot of demographic dividend may accrue when a country's fertility falls leading to a decline in the proportion of children and an increase in the proportion of persons in working ages. This demographic shift produces an increasing proportion of people in age groups where production exceeds consumption. The first demographic dividend was positive for Japan from 1949 to 1994. The high rates of economic growth that Japan experienced during the 1960s, indicates that the decline in fertility post 1949 played a dominant role in pushing the growth of per capita income during the same period. There is also scope for a second wave of demographic dividend. When the retirement needs of the population are met mainly through capital accumulation rather than public transfers or dependency on family, an aging population gives a strong incentive to accumulate wealth. Thus Japan stands to gain a second dividend as well since its first dividend was heavily invested and contributed to increase physical capital instead of leading just to higher consumption.

The demographic experience of Kerala is also worth noticing since it was India's earliest demographic transition as it secured replacement level fertility and high longevity much ahead of other regions of the country. This paved opportunities for high labour force participation during the 1980s and eventually led Kerala to the Gulf migration boom. The first phase of demographic dividend was thus fruitful for Kerala with increased household income and higher per capita investment on health and education. But it is to be noted that Kerala was not much successful in converting this demographic dividend into a full swung manufacturing boom mainly because of slow paced industrialisation, outmigration of skilled workers and high dependence on remittances. Though the benefits of the first dividend may easily be reaped through the favourable age distribution, the gains from the second dividend depend upon the conscious actions of consumers and policymakers in response to the ongoing demographic transition. Kerala has the potential to achieve financial deepening through the growth of the silver economy resulting from expansion of insurance and financial services, growth of health care and geriatric care industries and longer productive lives. The constraints like mounting pension burden of an already fiscally depleted state, increased public sector or family dependency for geriatric care,

accelerating out of pocket health expenditure poses serious challenges to the possibility of a second phase of demographic dividend. It should also address some structural difficulties arising out of labour shortages in some sectors, out migration of skilled youth and inadequate and inferior long term care infrastructure.

Can Kerala Replicate Japan's Ageing Transition Model

Japan was striving towards Universal Health Coverage from the 1950s itself. Initially the coverage started from the public sector and large companies leaving the small industry workers and families out of the safety net. But it managed to achieve universal coverage by 1961 and there was considerable expansion of social security until 1980. Japan even waived the 30% insurance copayment for its senior citizens aged over 70 years in 1973. The sustainability of such social security measures were under review with increased population ageing leading to the enactment of the Health and Medical Services Act for the Aged in 1982. To facilitate institutional care for elderly, Japan launched the "Gold Plan" in 1989 investing 6 trillion yen to build more long-term care institutions which was further expanded to include home care programmes. In 2000 it introduced long term care insurance which covers both home and institutional care. Thus it built a sustainable silver economy model with universal health coverage to minimise out of pocket health expenditure, pension to support livelihood and long term care insurance to support for geriatric disability.

In Kerala, people above 60 years of age constitute nearly one fifth of the total population and the share of elderly is expected to rise because of lower birthrates, better healthcare, higher life expectancy and continued out migration of younger people. Given this demographic scenario, care for elderly is inevitably a matter of public concern and successful silver economy models like Japan are highly relevant in Kerala context especially when it is leading the demographic transition much ahead of other states of the country. Due to its fiscal limitations, Kerala cannot just replicate the Japan model, but it can adopt the strategies with its own unique, low cost social capital.

Elderly welfare programs in Kerala have made significant progress through its community-based approach. ASHA (Accredited Social Health Activists) workers, Kudumbashree and Sannat Sena volunteers assist the elderly by providing basic wellness and mental support, monitoring bedridden elderly citizens at home, and connecting them to government health services through the Vathilpadi Sevanam scheme of the Government of Kerala, implemented through local self government departments. The Vayomithram project offers free examinations and basic medications to elderly people who are bedridden or chronically ill and its mobile clinics are staffed by a doctor, nurse, and health worker to provide free check-ups and basic medicines. Through Kudumbasree caregivers programmes and programs like K4Care and

Harsham, Kerala is using its massive, 4.5-million-member Kudumbashree women's network to train thousands of local women as professional geriatric caregivers. Such initiatives will increase women employment and also establish foundations of institutionalised care networks. In addition to these a number of welfare schemes such as Aswasakiranam, Vayo Amritham, social security pensions, Mandahaasam, Vayaraksha, second innings are being run by the Government of Kerala for elderly population. But it is to be noted that such schemes are insufficient to address the care gap in the wake of rapidly increasing elderly population mainly because of its fragmented and scattered nature involving multiple agencies.

The Government of Kerala submitted the nation's first elderly budget in 2026–2027, dedicating ₹36,812.14 crore, 18.74 percent of the State Budget, to the welfare of elderly population. It consolidates and efficiently allocates targeted funds for geriatric care, social pensions, and retirement homes. To address the concerns of a fastly ageing society, the Government of Kerala in 2026 announced India's first exclusive Department for Senior Citizens along with a quasi-judicial Senior Citizens Commission to protect the rights and welfare of elderly population. Rather than just another welfare scheme, these moves are expected to bring long term public intervention in geriatric care. Beyond fragmented welfare initiatives, long term investments in social security, geriatric health care and affordable institutional care infrastructure of assured quality are needed to ensure a dignified life for the expanding elderly population of the state.

Conclusion

Though through the demographic lens population aging is viewed as an issue to be addressed and remedied, it should also be considered that it is the result of remarkable success in health improvement and economic development of a country. Many countries and regions are experiencing the same trend at a different pace. Hence, Japan is only a forerunner of a shining silver economy, and her experience will be beneficial for other regions that are to follow the trend. The study points to the fact that Kerala has undergone a rapid demographic transition with declining fertility and increasing life expectancy. Although Kerala has not reached Japan's level of ageing, the demographic direction is similar. Japan represents an advanced ageing society, while Kerala is moving towards a similar stage. Japan's experience demonstrates the importance of strengthening elderly healthcare, social security systems, and community-based care mechanisms. Kerala needs to prepare early to manage the growing demand for elderly services and ensure a better quality of life for senior citizens. To strive towards a thriving silver economy, the state should focus not only on decent caregiving for elderly but also by ensuring their gainful economic participation and productive reinvestment of accumulated wealth.

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