

**Panel 1 - National Overview:** The most recent census, conducted in 2024 after 12 years, reports Sri Lanka's total population at 21,763,170. The roofless-adjusted figure is 21,760,889. Between 2014 and 2024, the population grew steadily, although the average annual growth rate slowed to below 1%. Population density is 349 persons per square kilometer. The gender distribution shows a female majority, and the age structure is dominated by young and middle-aged groups.

Population growth in Sri Lanka remains steady but is slowing, with early signs of aging. Policies should focus on workforce planning, retirement preparedness, and investment in housing, healthcare, and education, while adapting employment and social support systems to the changing age structure.

**Panel 2 - Provincial Overview:** The Western Province is the most populous, with over 6 million residents, while the Northern and Uva provinces have the smallest populations. Gender ratios are generally balanced across provinces, though Western records the highest numbers. From 2016 to 2022, mid-year population trends show that growth has slowed in less urbanized areas, and some highly populated districts have seen slight declines. The proportion of the roofless population is highest in the Western Province and lowest in Uva.

Population concentration in Western Province reflects urban migration and economic centralization, while other provinces face service and development gaps. Policies should promote equitable growth, expand infrastructure in underpopulated areas, and manage Western's urban density to ease pressure on resources.

**Panel 3: District-Level Drill Down:** Colombo and Gampaha districts stand out as major population centers, with densities much higher than most other districts. Mid-year population trends from 2015 to 2024 indicate continued growth in urbanized districts such as Colombo, Gampaha, and Kandy, while several rural or conflict-affected districts show stagnation or slight declines.

The visualization also identifies anomalies, including areas with exceptionally high growth, likely due to internal migration. There are marked differences in population density, indicating emerging urban hotspots and areas of potential resource stress. Policy makers should plan for infrastructure upgrades and tailored services in high-density districts, while supporting underpopulated or slower-growing districts with programs to retain residents and promote balanced development.

## Reproducibility Note

All data sources are cited, with downloadable datasets and R HTML code provided for full reproducibility. All images and datasets are stored in the project folder to avoid path issues, and custom CSS is used to style the navigation bar and value boxes. The dashboard is built as a reproducible RMarkdown project, including complete code and package details. It uses the libraries flexdashboard, tidyverse, tsibble, lubridate, htmltools, readr, readxl, ggplot2, plotly, RColorBrewer, scales, patchwork, ceylon, and sf. The ceylon package is installed via `devtools::install_github("thiyangt/ceylon")` and requires an internet connection for installation.

**Dashboard:** The dashboard is included as a local HTML file: `as2021382.html`