A Cartographic Exploration of Sri Lanka's Post-War Evolution

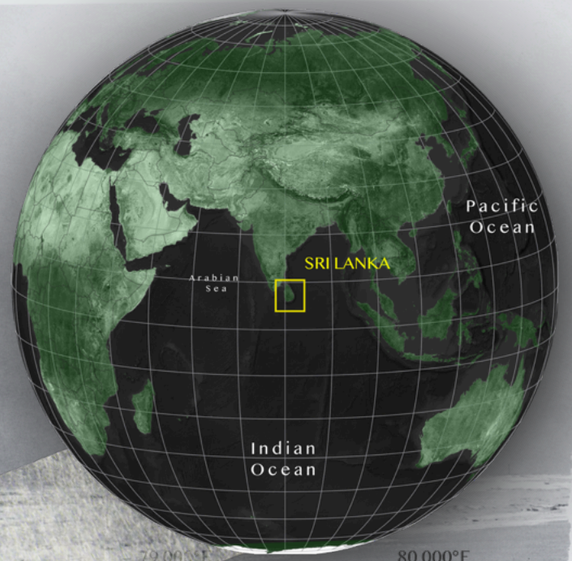
Introduction :

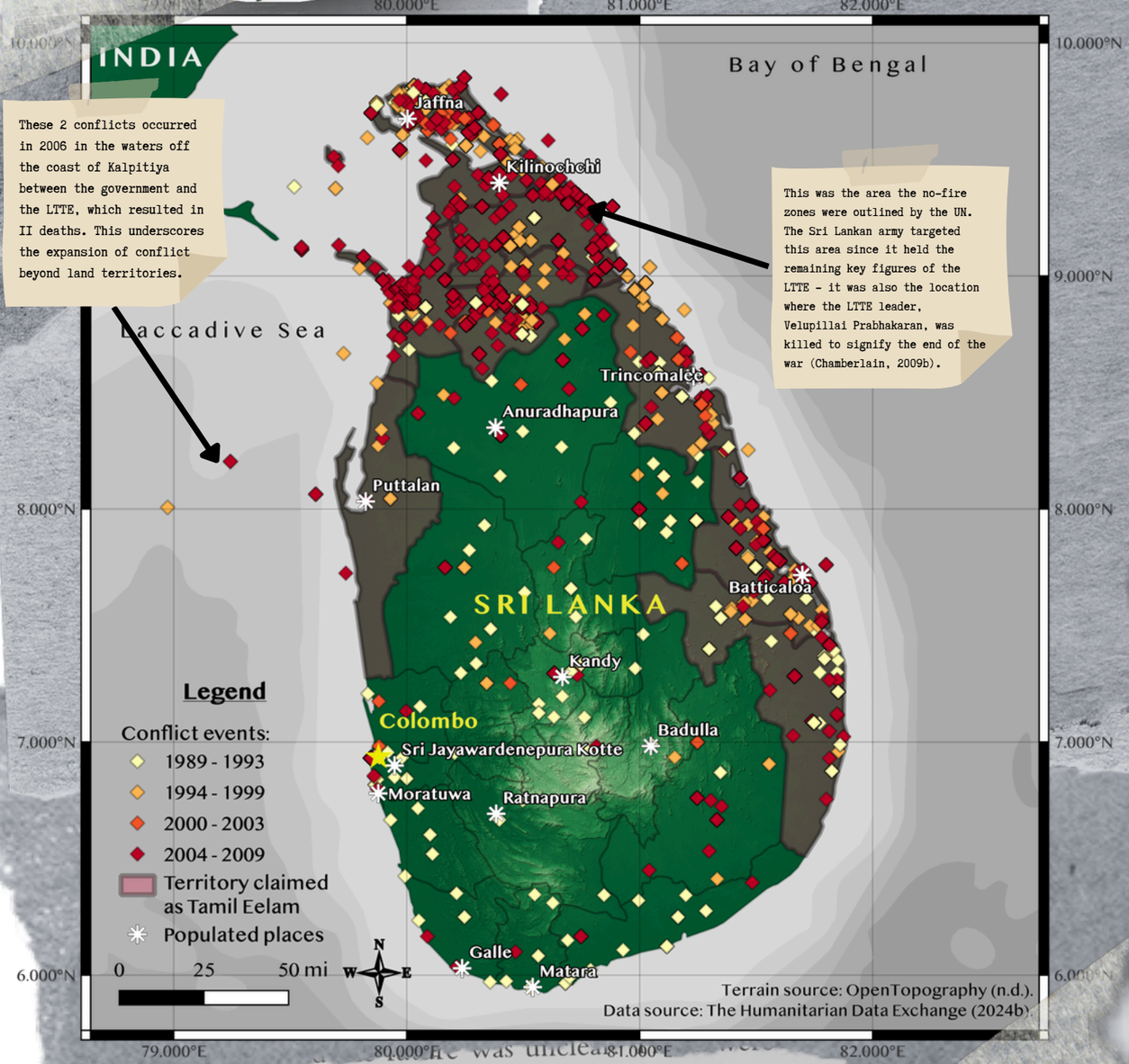
The Sri Lankan Civil War had a devastating impact on the country. Following the liberation from British colonisation in 1948 (Britannica, 2019), the country has been divided into two distinct ethnic groups - Sinhalese and Tamil. The Sinhalese obtained governmental power and used this to control the Tamil population (Anandakugan, 2020) such as through the Sinhala Only Act (Britannica, 1998). As such, the Liberation Tigers of Tamil Eelam (LTTE) formed in response with the aim of obtaining a separate state of Sri Lanka called Tamil Eelam. The UK proscribed the LTTE as a terrorist group in March 2001 (Home Office, 2021). The civil war began in 1983 and ended in 2009, but its implications have had lasting impacts up to today (BBC, 2019).

The documentary 'Sri Lanka's Killing Fields' (Channel 4, 2012) alleges the Sri Lankan army withheld aid from civilians in no-fire zones, while the LTTE used them as human shields - both extreme war crimes. UN estimates suggest 80-100,000 died during the conflict (BBC, 2021). Amnesty International (2017) reports 60-100,000 missing civilians, with Sri Lanka ranking second globally for disappearances in 1999 (BBC, 1999).

This atlas will delve into what happened to Sri Lanka post-war, and the precedent it set for the major changes the country has seen. The aim is to tell the story of Sri Lanka to the public, both within and outside the country, to explain and visualise the tragedies it has seen and what can be done to remedy it.

Map I: A Country Post Civil-War

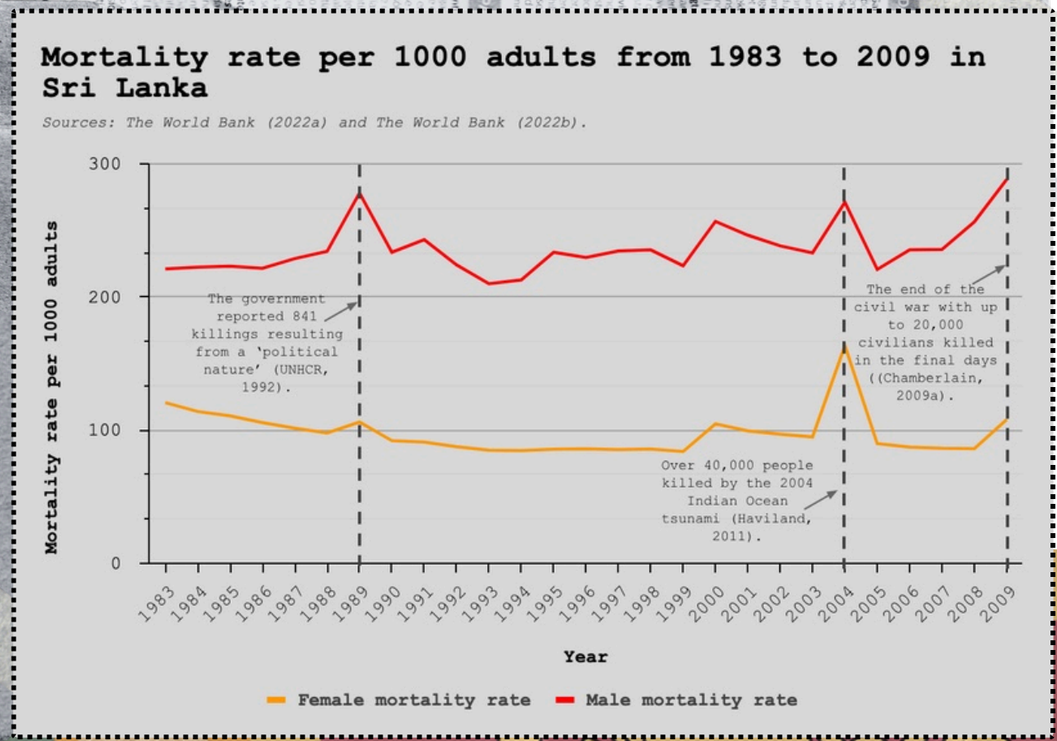


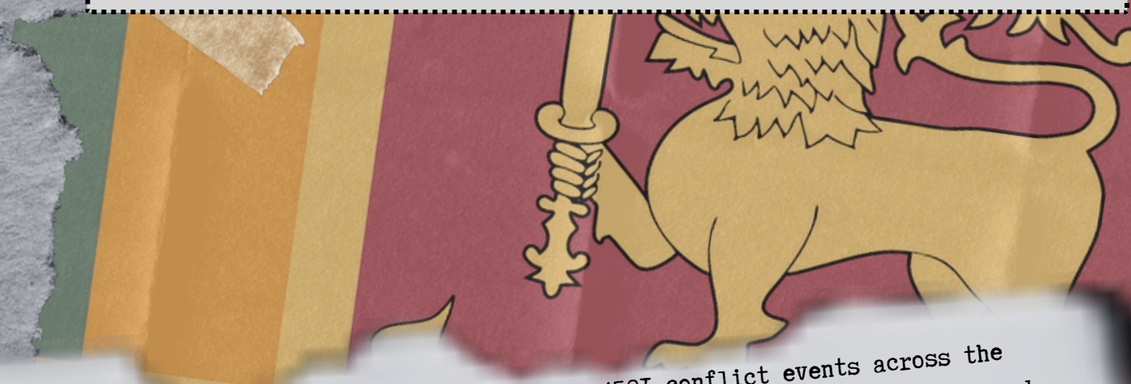


These 2 conflicts occurred in 2006 in the waters off the coast of Kalpitiya between the government and the LTTE, which resulted in II deaths. This underscores the expansion of conflict beyond land territories.

This was the area the no-fire zones were outlined by the UN. The Sri Lankan army targeted this area since it held the remaining key figures of the LTTE - it was also the location where the LTTE leader, Velupillai Prabhakaran, was killed to signify the end of the war (Chamberlain, 2009b).

signs of the island being brought back to life anyway, I had

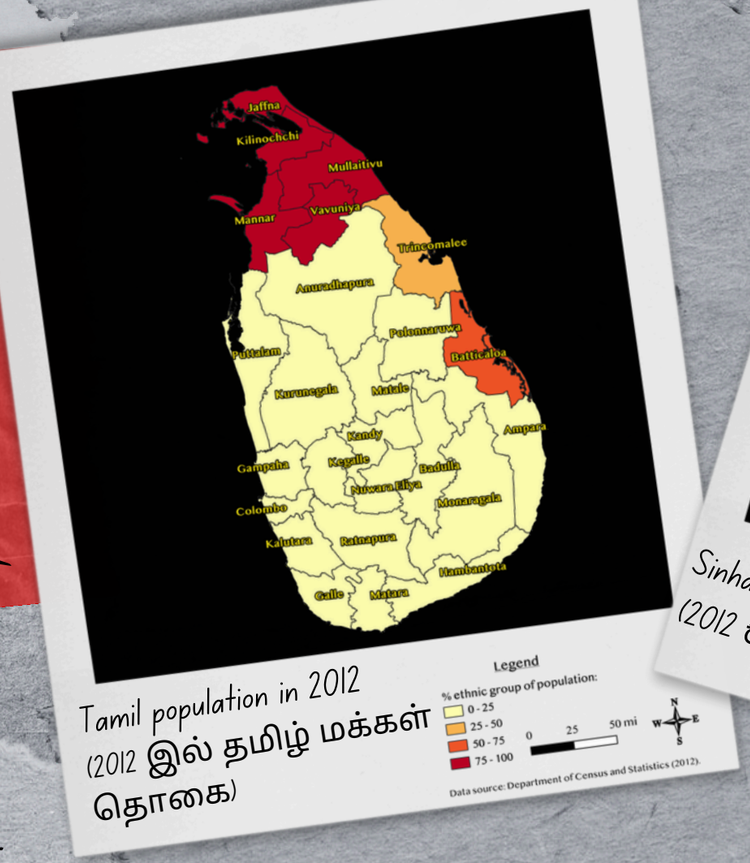




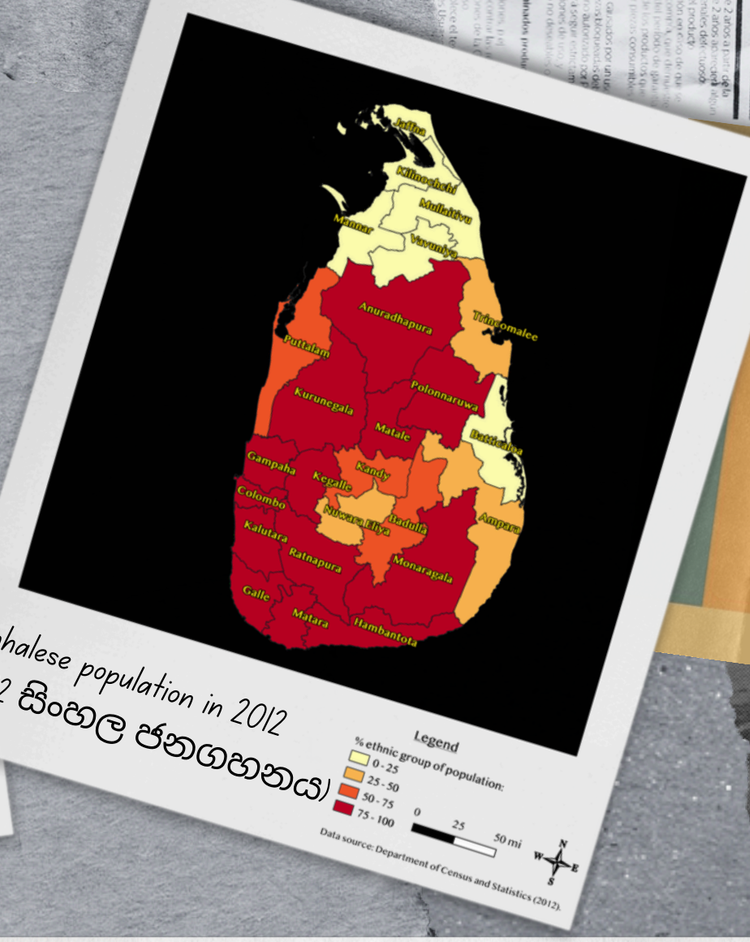
Sri Lanka is a wounded country, explicitly shown by the 458I conflict events across the country. There was a heavy focus in the north within the Tamil Eelam region (Omanthai and Vavuniya, 2007), the area mostly populated by Tamil civilians, especially in the 2000s period. Approximately 3% of the conflicts occurred outside this region. Channel 4's (20I2) documentary provides an extremely detailed account including video footage which led to the higher conflict numbers in the north, specifically within no-fire zones declared by the UN. As such, this map provides a compelling overview of the regionally biassed conflict during the war.

The figure above shows the mortality rate per I000 adults in Sri Lanka during the period of the civil war. There are spikes of increases in I989, 2004, and 2009, all annotated in the chart coinciding with particular events. The female mortality rate was approximately half the male mortality rate, resulting in there being 825,767 more females than males in Sri Lanka today (Statistics Times, 2024). This gender-ratio imbalance may require targeted interventions to improve healthcare access, promote gender equality, and address the underlying causes of conflict.

Map II: A Country Divided

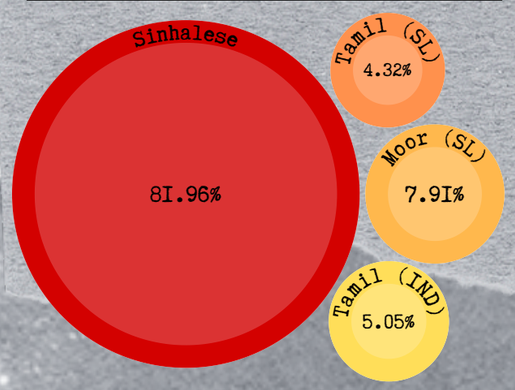


Tamil population in 2012
(2012 இல் தமிழ் மக்கள் தொகை)



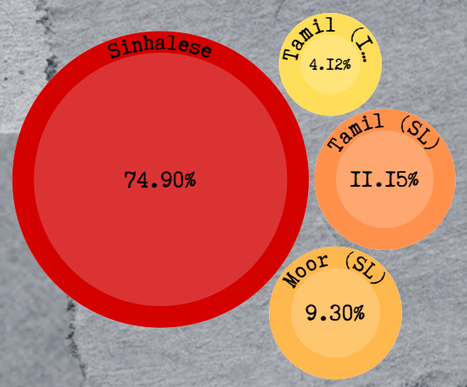
Sinhalese population in 2012
(2012 සිංහල ජනගහනය)

ETHNIC POPULATIONS IN 200I



Data source: Department of Census and Statistics (200I).

ETHNIC POPULATIONS IN 20I2



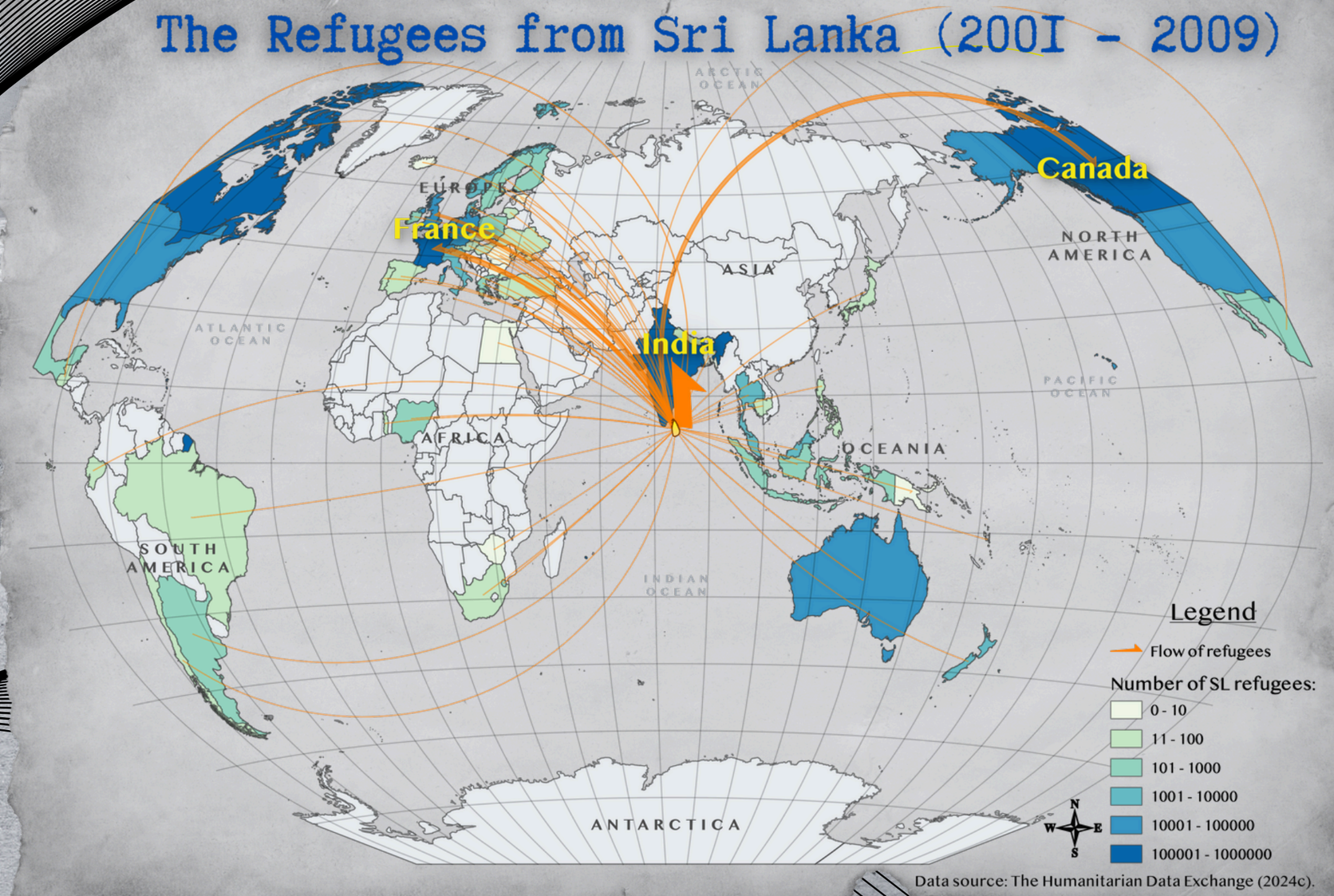
Data source: Department of Census and Statistics (20I2).

The civil war left Sri Lanka a divided country. The maps representing the population 3 years after the end of the war exemplify this division, with Tamils heavily concentrated in the north, particularly Mullaitivu, the location of the no-fire zones and where the leader of the LTTE was killed which ended the war (Chamberlain, 2009b). The Sinhalese population is almost three quarters of the total population, and are concentrated towards the south of the country, specifically Colombo, the capital city.

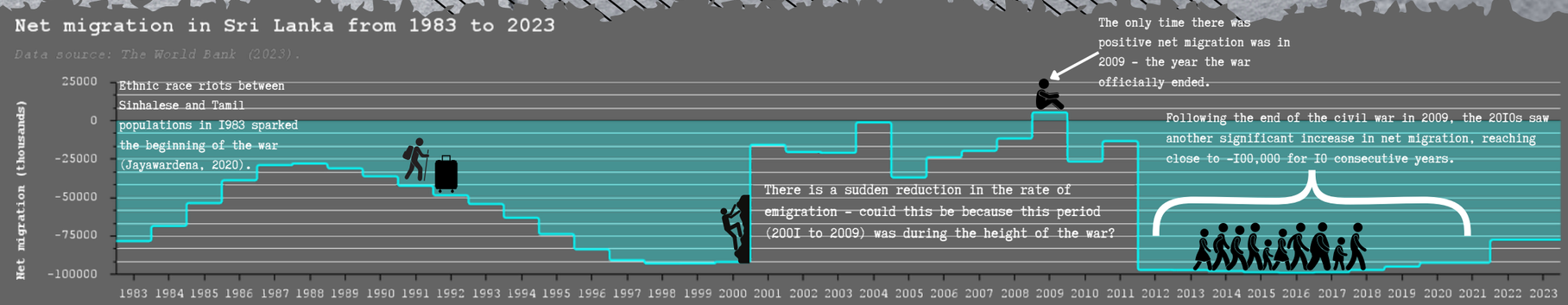
Packed circles charts depict the changes in population from 200I to 20I2. It shows a significant increase in the Tamil population by 6.83%. However, in the 200I dataset, there was only data available for I8 of the 25 districts (Department of Census and Statistics, 200I), excluding seven districts where Tamil population predominated in 20I2: Jaffna, Mannar, Vavuniya, Mullaitivu, Kilinochchi, Batticaloa, and Trincomalee. According to Silva (2007), “the census could not be conducted in the LTTE controlled areas” since they prevented data from being collected - yet in a country with heavy ethnic polarisation, the publication of this data meant it could be interpreted negatively from the Sri Lankan government view since it reinforces Sinhalese dominance.

signs of the island being brought back to life anyway, I had

Map III: A Country who lost its citizens



Map 3 depicts the diaspora of Sri Lankans amid civil unrest, with significant emigration from push factors primarily to India, Canada, and France, mainly by Tamil refugees. Velamati (2009) notes that post-war, less than 5% were willing to return to Sri Lanka. Notably, 5I.57% migrated to India, likely due to proximity and the ability to settle with Indian Tamils in Tamil Nadu. However, this migration is only a fraction of the total movement.



The line graph shows from 200I to 2009 a significant reduction in net migration. This could be attributed to peace talks between the Tamil Tigers and the government (CNN, 200I), hinting at hope for Sri Lankans. Following the conclusion of the war in 2009, mass emigration occurred for a sustained period of time, particularly resulting from the allegations of war crimes being committed from both sides signifying a huge human rights violation. Now, with Sri Lanka facing an economic crisis, the question arises: will the declining net migration trend persist resulting in brain drain, or will the government trigger a solution?

signs of the island being brought back to life

Map IV: A Country in Economic Crisis

To do List

On May 30, 2022, the exchange rate was 1 GBP = 457.448 LKR, marking the highest appreciation recorded in Sri Lankan history (Pound Sterling Live, 2022). The mean monthly income in 2019 for the poorest districts mounted to 40,000 LKR, equivalent to £87.44, translating to £20.12 per week.

The provided grocery list outlines the recommended minimum expenditure for a daily intake of 2400 calories in 2024 (Numbeo, 2024):

White Bread (50g)
18.52 LKR = 4p

White Rice (250g)
58.35 LKR = 13p

Eggs (2.4)
127.23 LKR = 28p

Chicken fillets (200g)
297.69 LKR = 65p

Beef round (100g)
224.07 LKR = 49p

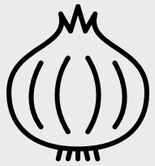
Apples (250g)
480.93 LKR = £1.05

Bananas (250g)
73.11 LKR = 16p

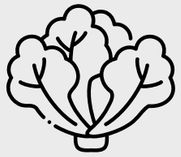
Oranges (150g)
240.32 LKR = 53p

Tomatoes (200g)
80.27 LKR = 18p

Potatoes (200g)
65.76 LKR = 14p



Onions (100g)
27.45 LKR = 6p



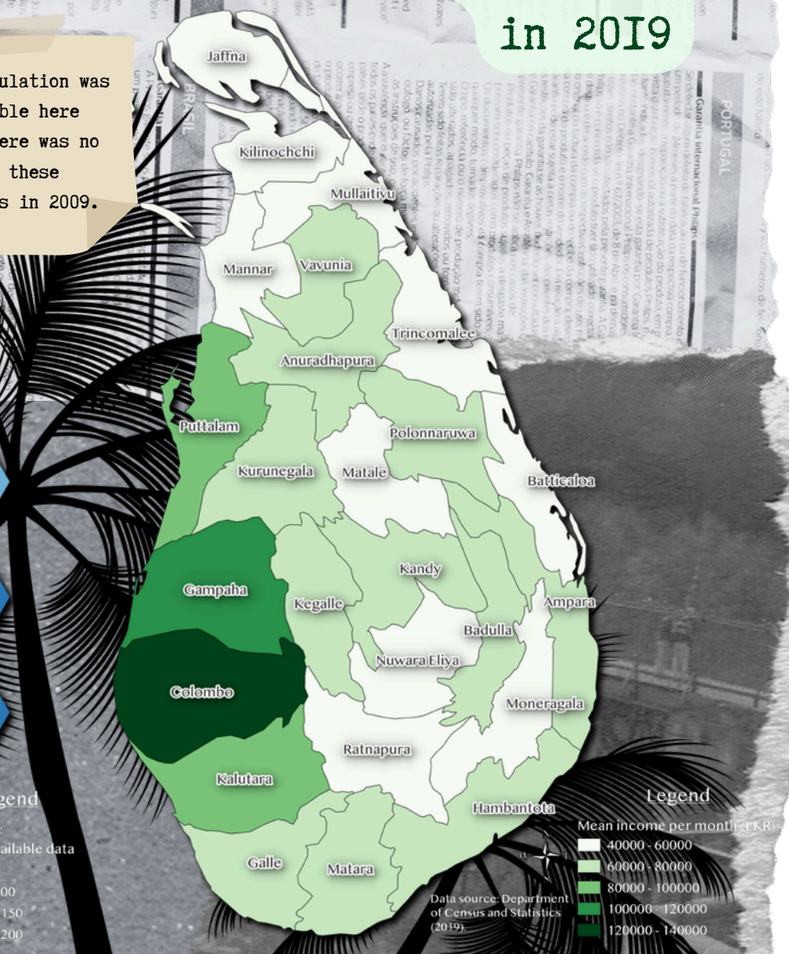
Lettuce (0.1)
36.79 LKR = 8p

Cost per day = 1,730.49 LKR = £3.78

Cost per month = 53,645.10 LKR = £117.27

Percentage change in mean income per month (2009 - 2019)

Mean household income per month distribution in 2019



Since 2019, Sri Lanka has faced an economic crisis, attributed to post-war policy decisions rather than just the COVID-19 pandemic (Perera, 2022). The tear-shaped country is exacerbated by its mean income distribution in 2019, specifically the southern-western income inequality towards the capital city, Colombo. Map 2 correlates low-income brackets (40,000 to 60,000 LKR per month) with areas densely populated by Tamils.

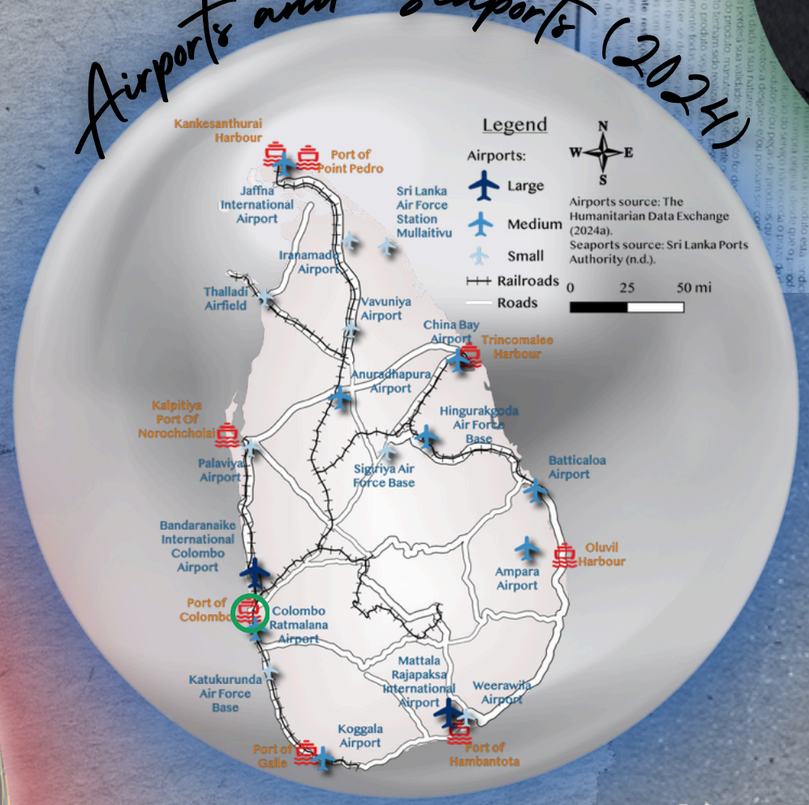
Despite a significant increase in mean income since 2009, many districts, particularly those densely populated by Tamils, struggle to afford recommended monthly food expenditures. The crisis had led to extreme situations, such as lengthy food and fuel queues resulting in fatalities (De Silva and Perera, 2022). Public despair resulted in widespread protests, prompting the exile of President Gotabaye Rajapakse in July 2022 (Ethirajan, 2023).

Map V: A Country with Potential

Named the 'Pearl of the Indian Ocean' (Wijerathna-Yapa, 2020), Sri Lanka boasts immense potential. Situated strategically in the Indian Ocean, it serves as an important transshipment hub in South Asia (Kavirathna et al., 2020), highlighted by the major shipping lanes along its southern coast. The country benefits from a well-connected network of roads and railways, with key airports and seaports concentrated in the south, exacerbating regional disparities. Recognising Sri Lanka's prospects, nations like China have invested in various initiatives, specifically to grow their Belt and Road Initiative (Ruwanpura et al., 2020).

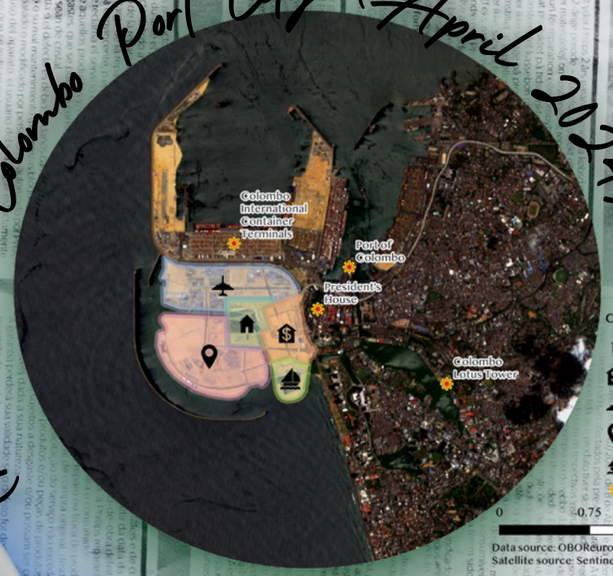
Global Shipping Lanes (October 2022)

Airports and Seaports (2024)



Airports source: The Humanitarian Data Exchange (2024a).
Seaports source: Sri Lanka Ports Authority (n.d.).

Colombo Port City (April 2024)



Legend

Colombo Port City precints:

- Central Park Living
- Financial District
- International Island
- Island Living
- The Marina
- Areas Of Interest

0 0.75 1.5 mi

Data source: OBOReurope (2021).
Satellite source: Sentinel Hub (n.d.).

Legend

Shipping lanes:

- Major
- Middle
- Minor
- Major shipping routes

N W E S

Lanes source: Benden (2022).
Major routes source: Port Economics Management (2019).

Notably, the Colombo Port City, a Chinese investment project, stands west of the President's House, insinuating strategic significance between China and Sri Lanka's political leadership. However, competition between the Colombo Port and Hambantota Port has intensified due to shipping lane dynamics, yet enhancing Hambantota Port's efficiency to be the same as Colombo's could significantly increase its market share to 59% (Kavirathna et al., 2020). But, questions linger: will foreign direct investment boost Sri Lanka's economy and elevate it to its full potential, or will it create overreliance on international funding and subsequently dilute domestic market strength?

signs of the island being brou ... hway, I had

Conclusion and Self-Reflection

This atlas has explored Sri Lanka's development and change since the civil war. It highlighted the movement of people, particularly away from the country and the push factors attributing to this - the allegations of the end of the civil war in 2009 and the economic crisis since 2019. Despite illustrating the potential for growth, there's a poignant realisation that this may come too late, due to the erosion of trust in the government among citizens, evident in protests.

The choice of mapping tools like QGIS for data visualisation and Inkscape for refining designs highlights the approach towards impactful presentation. The overall design of each page was created using Canva. Experimentation with flow maps and cartograms showcases innovation, while diverse projections like the globe map add visual interest. Accessibility was ensured through colourblind-safe palettes and contrasting details so that not only colour was relied upon. Visual hierarchy was emphasised in each map to ensure the most important details stood out.

However, to enhance the atlas further, diversifying the mapping techniques beyond choropleth maps could offer visual variety, such as proportional symbol maps. Additionally, with more time, the maps could have been made more interactive, such as with Map 3, to show the changes in migration and refugees over time. Limited data availability, particularly evident in Map 3's graph, suggests the need to source comprehensive data directly from credible Sri Lankan sources for more robust maps.

Overall, this atlas has explained Sri Lanka's post-war trajectory, with room for refinement and innovation to improve its impact and effectiveness as a storytelling tool.

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