

## POPULATION DISTRIBUTION IN BRAZIL

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**T**HE TERM **population distribution** refers to where people are found within an area. On a world scale many people are found in temperate areas, such as Europe and North America, and also in sub-tropical areas, such as India (Figure 1), but fewer people are found near the poles or in hot deserts. In any country there is usually a clear division between areas that have many people with lots of cities (urban), and areas with few people (rural). There are many reasons for these differences in population distribution, such as climate or where jobs can be found.

Population distribution is measured in terms of the number of people within an area. This is called **population density** and is expressed as the number of people per square kilometre (km<sup>2</sup>). In the UK the population density is 248 per km<sup>2</sup>. However, when expressed for a whole country the population density can be misleading and can hide the distribution of people within the country. It is rare to find any area of the world where the population is evenly distributed, because physical and human factors will cause some areas to have lots of people and other areas very few.

### Brazil

Brazil is the fifth largest country in the world in terms of land area (8.5 million km<sup>2</sup>) – about the same size as Europe – and has the sixth largest population. The overall population density for Brazil is low due to its huge size. In Brazil a person has over 12 times more space on average than a person in the UK, but averages assume an

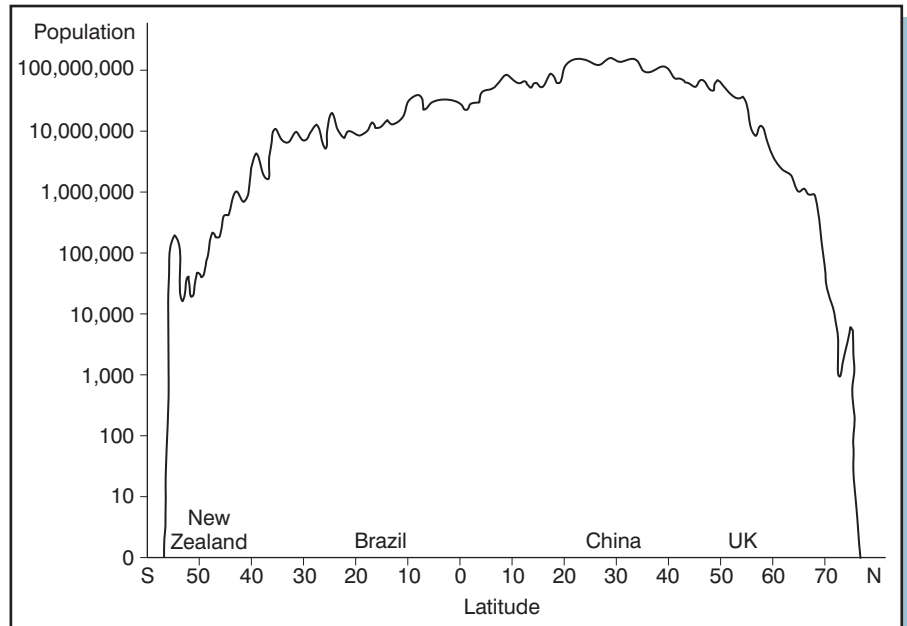


Figure 1: World population distribution by latitude  
Source: USGS

Year	Population (millions)	% urban	Population density (people per km <sup>2</sup> )
1900	17	–	2.0
1940	41	31	4.8
1970	93	56	10.9
1980	119	68	14.0
1991	147	74	17.3
1995	156	78	18.4
2000	168	80	19.8
2002	175	81	20.6

Figure 2: Population growth of Brazil

even distribution of population, which is not true! Brazil's population, however, has been growing at a far faster rate than that in the UK (Figure 2).

The population distribution pattern in Brazil is uneven. The reasons for this include the great variety of topography, natural vegetation types (Amazon rainforest = 3.45 million km<sup>2</sup>), soil types, climatic areas, the world's largest river basin (Amazon), and

economic and political influences.

A glance at Figure 3 shows that most people live in the Atlantic coastal zone, especially in the economic zone of the South-East region. The South-East and the South regions dominate and together contain 70% of Brazil's total population on only 18% of the land area. Elsewhere the population is sparse, except in or near cities.



Figure 3: Population distribution of Brazil

In detail, Figure 3 reveals that:

- there are many people near the coast
- there are many large cities (and ports) on or near the coast
- there is a decline in population density with increasing distance from the coast (Figure 4)
- large inland areas (eg Amazonia) are sparsely populated
- there are only a few population centres inland (eg Brasília, Manaus)
- the north-west and central parts have very few people
- most people in the less densely populated areas live near rivers
- the majority of people are found in the south (south of latitude 20°S)
- the main concentrations of people are around the São Paulo (10.1 million)-Rio de Janeiro (5.8 million)-Belo Horizonte (2.1 million) triangle in the south-east, and in the north-east coastal zone from Fortaleza (1.9

million) to Salvador (2.2 million)

- there are fewer people in the north-east away from the coastal zone
- there is an increase in population density from north to south (Figure 5), and from west to east (Figure 4).

The reasons for the distribution of population in Brazil are both historical and contemporary. Early settlements were on the coast because Portuguese traders and colonists established themselves in places where it was easier to maintain contact with Europe. The Atlantic Ocean would also have provided food (fish). Some of these early settlements became major ports and economic centres which then attracted more people because of the jobs available there.

The interior of Brazil remained undeveloped and unpopulated for a long time. The tropical climate areas were inhospitable for Europeans and the rainforest was a daunting obstacle (Figure 6). The only access to the north and west was by river, and today the density of population is still greater in the river valleys (Figure 4). The Amazon population grew rapidly between 1850 and 1910 due to the rubber trade (a rainforest resource), and Manaus became an important but isolated commercial centre. In the 1960s and 1970s attention returned to the 5 million km<sup>2</sup> of the Amazon region because of its minerals, land, and forest products which Brazil wished to exploit in order to help the country's economic development. The population of this vast region began to increase due to mining settlements (eg Carajas), government settlement schemes and land grants (especially for poor people from the North-East region). This expansion was uncontrolled and led to social and environmental problems. The isolation of the region, the vast distances and poor accessibility have kept the numbers of people living in this area relatively low. It became clear after the initial settlement programmes that the infertile soils, and the hot and

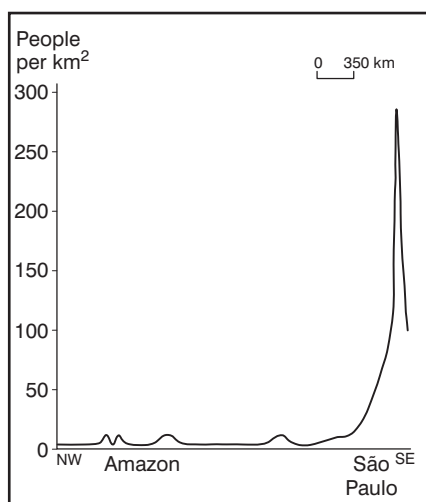


Figure 4: Population density in Brazil, from north-west to south-east

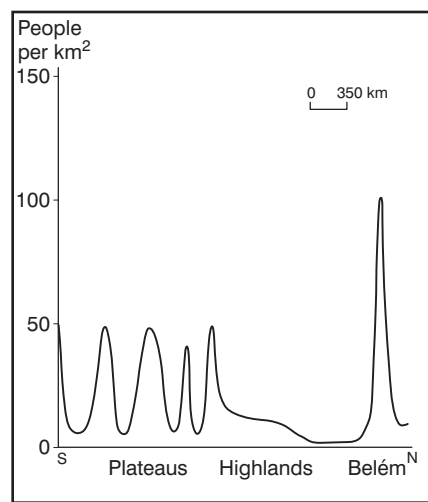


Figure 5: Population density along longitude 50°W

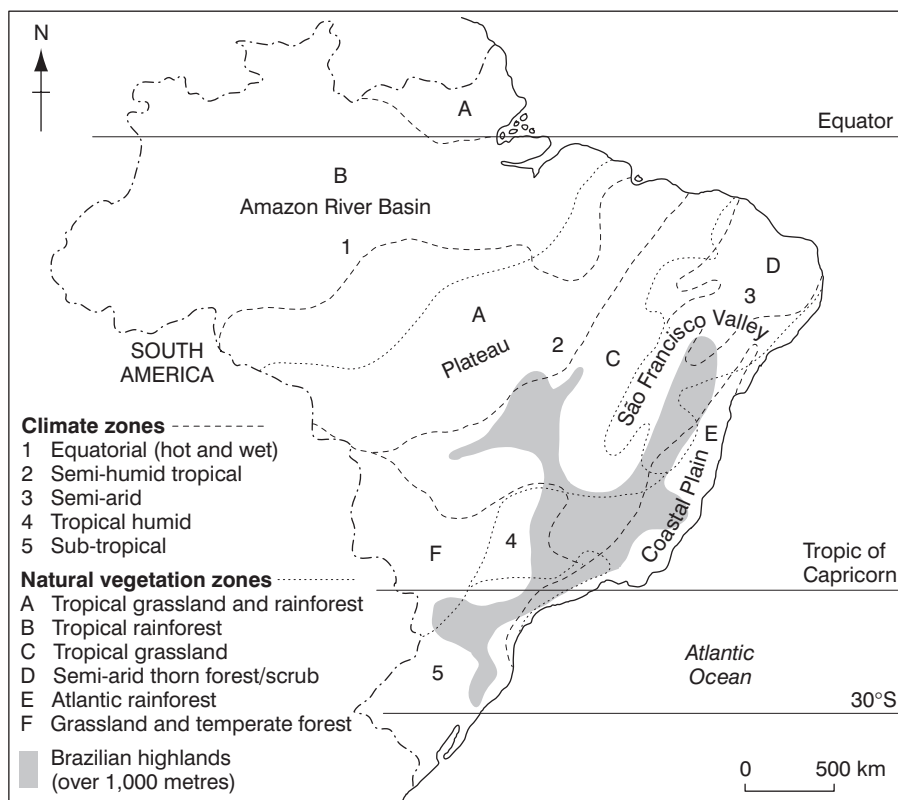


Figure 6: Physical characteristics of Brazil

humid climate (Figure 6), make this a difficult area for people to live in.

Some inland areas, eg São Paulo State, were suitable for agriculture and/or contained valuable minerals, and so attracted people because of the economic opportunities (ie money and jobs). Wealthy landowners established commercial centres, such as Brazil's largest city São Paulo. Then rapid urban growth occurred between 1970 and 1990 (Figure 2) as people moved from rural areas to the urban centres looking for higher-paid jobs, better housing, and a better standard of living. Many of these migrants had relatives in the cities and this made moving easier.

For several decades migration has taken place from most parts of Brazil to the South-East region, especially from the North-East. In 1960 the capital city of Brasilia was built 700 km inland. The reason for doing this was to attract people away from the three big cities in the South-East; although this was quite successful the three cities remain very large and are still more important. Not only is the

South-East attractive economically, it also has a sub-tropical climate, a plentiful water supply, and natural harbours (eg Rio de Janeiro). The South region is a continuation of the South-East, with farming and manufacturing industry providing jobs and attracting people. The relief of the South is mostly plains, so it is easier to live there than in the mountains (Figure 6). People are pushed out of the North-East region because it is semi-arid (Figure 6) and suffers droughts. The lack of fresh water and farmland have prevented the North-East region from developing much since it was first colonised in the 16th century. The government provides special help for the people of this region, which has encouraged some to stay, especially near the river São Francisco. There are oilfields in the North-East and so there may be population growth there in the future.

Recent migration patterns have been towards the sparsely populated Centre-West and North regions. This is mainly an agricultural migration and indicates a trend for the early part

of the 21st century. The largest urban centres have slower growth rates now but mid-sized urban centres are growing, especially in Brazil's interior. Parts of the Centre-West region have been designated as reservations for native Indian tribes and so are likely to remain areas of low population density (Figure 3).

### Conclusion – the future

Brazil's population structure is changing: The birth rate is declining and life expectancy is increasing. There is currently a young population but this will change in the future: by 2050 there will be a lot of old people. Usually older people seek a warm climate and quieter locations. Will this change the current population distribution?

Since 1995 Brazil's rapid urbanisation has slowed, being replaced by growth in the smaller urban centres, especially in the North and Centre-West regions. This may create a more even distribution of population in Brazil. In 1997 the Brazilian government set up 'Amazonia Agenda 21', which integrated all governmental and non-governmental policies for the region. The aims are to improve the lives of the people and create sustainable economic growth. If this is successful it may attract more people to the vast Amazon region, so increasing its population.

Long-distance migration has declined, and there are signs of people returning to their home regions. Short-distance migration within regions, and urban-to-urban migration, are now more common than long-distance migration. This would suggest stability in the present population distribution pattern.

It is clear that the population is currently distributed unevenly in Brazil, and that this pattern is likely to remain, with perhaps a few minor modifications.

# Activities

1 How does climate influence the ability of people to live in a place?

2 What are the problems with using population density figures for whole countries?

3 Name the four largest countries of the world in terms of land area.

4 Name the five largest countries of the world in terms of population size.

5 Produce a pie graph using the following figures, which show the origin of immigrants to Brazil between 1884 and 1945.

Country	%
Italy	38.4
Portugal	33.3
Spain	15.6
Japan	5.1
Germany	4.7
Russia	2.9

6 (a) Study Figures 7 and 8. Use the figures *either* for ‘% of total population’, or ‘Population density (people per km<sup>2</sup>)’. On a copy of Figure 7, produce a coloured (choropleth) map to show the population pattern in Brazil.

(b) Describe the pattern shown on your map.

7 There are five regions of Brazil (six if the Federal District of Brasilia is included). Work in pairs to produce a geographical profile of one of these regions. Present your work as an informative poster for display.

8 On a copy of Figure 6, mark on the major rivers of Brazil with blue lines.

9 Why do many people live near the coast in Brazil?

10 Why do many people live in the South-East region of Brazil?

11 Why do few people live in the North region of Brazil?

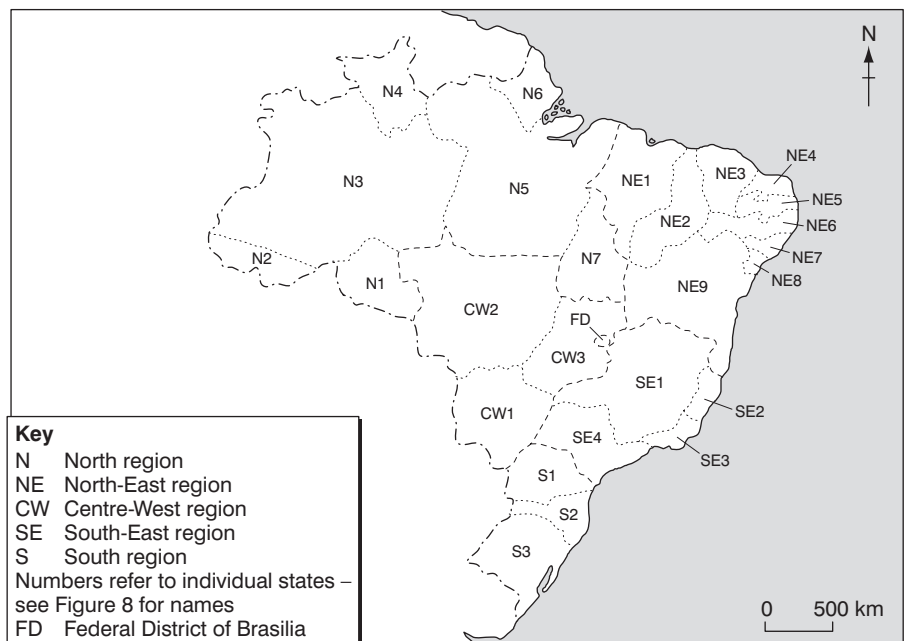


Figure 7: Regions and states of Brazil

Map reference	State name	% of total population	Population density (people per km <sup>2</sup> )
N1	Rondonia	0.81	5.68
N2	Acre	0.33	3.64
N3	Amazonas	1.66	1.80
N4	Roraima	0.19	1.41
N5	Para	3.65	4.96
N6	Amapa	0.28	3.41
N7	Tocantins	0.68	4.30
NE1	Maranhao	3.33	17.18
NE2	Piaui	1.67	11.33
NE3	Ceara	4.38	50.21
NE4	Rio Grande do Norte	1.64	52.39
NE5	Paraiba	2.03	61.50
NE6	Pernambuco	4.66	80.80
NE7	Alagoas	1.66	100.81
NE8	Sergipe	1.05	81.11
NE9	Bahia	7.70	23.30
SE1	Minas Gerais	10.54	30.48
SE2	Espirito Santo	1.82	67.33
SE3	Rio de Janeiro	8.48	327.07
SE4	Sao Paulo	21.81	149.32
S1	Parana	5.63	47.82
S2	Santa Catarina	3.15	55.80
S3	Rio Grande do Sul	6.00	36.13
CW1	Mato Grosso do Sul	1.22	5.94
CW2	Mato Grosso	1.47	2.84
CW3	Goiias	2.95	14.73
FD	Distrito Federal	1.21	341.86

Figure 8: Population data for Brazilian states (2000 census)

12 Why are parts of the Centre-West region experiencing population growth?

13 Explain the population distribution in the North-East region of Brazil.

### Extension activities

14 An uneven distribution of

population, such as that found in Brazil, can have serious implications for the country. Identify five possible implications for Brazil of its uneven population distribution.

15 Draw a graph of the information in Figure 2. Include all three factors on your graph.