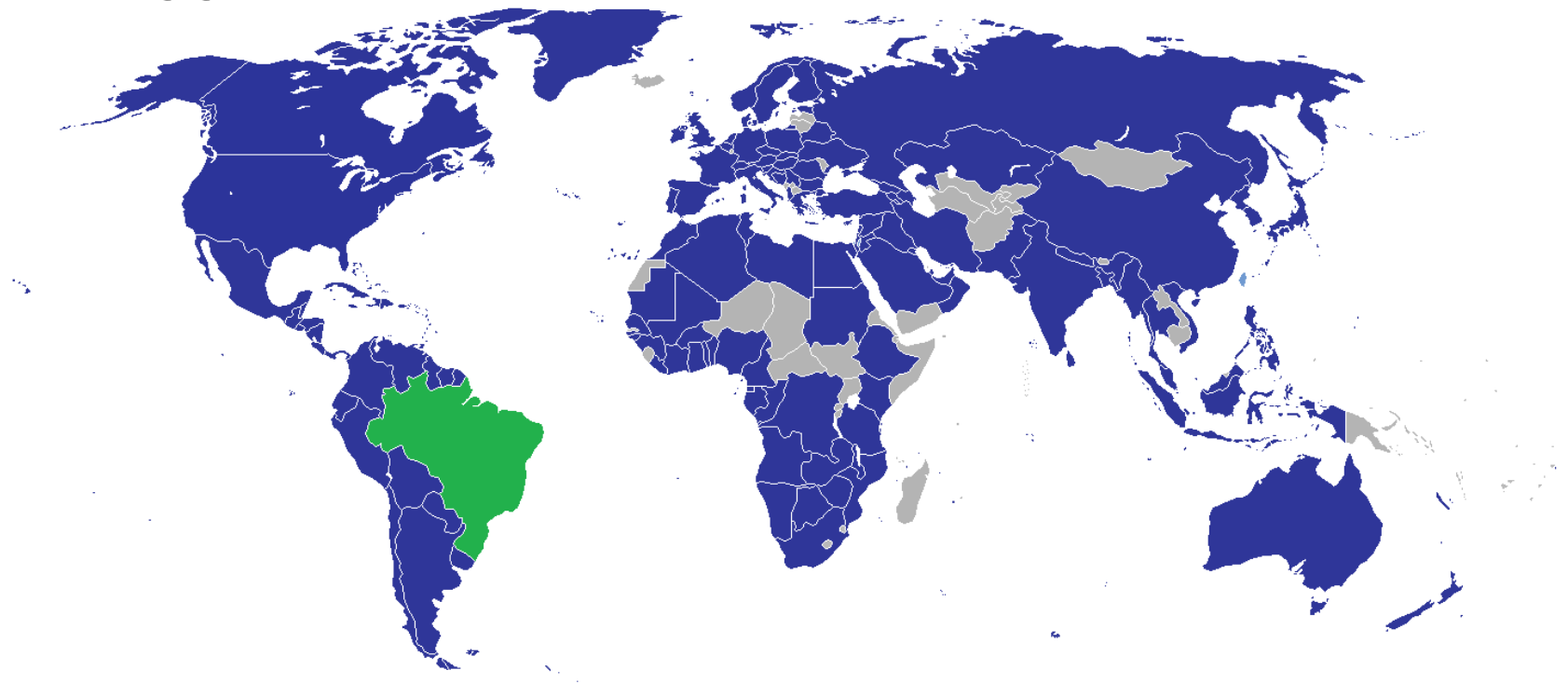




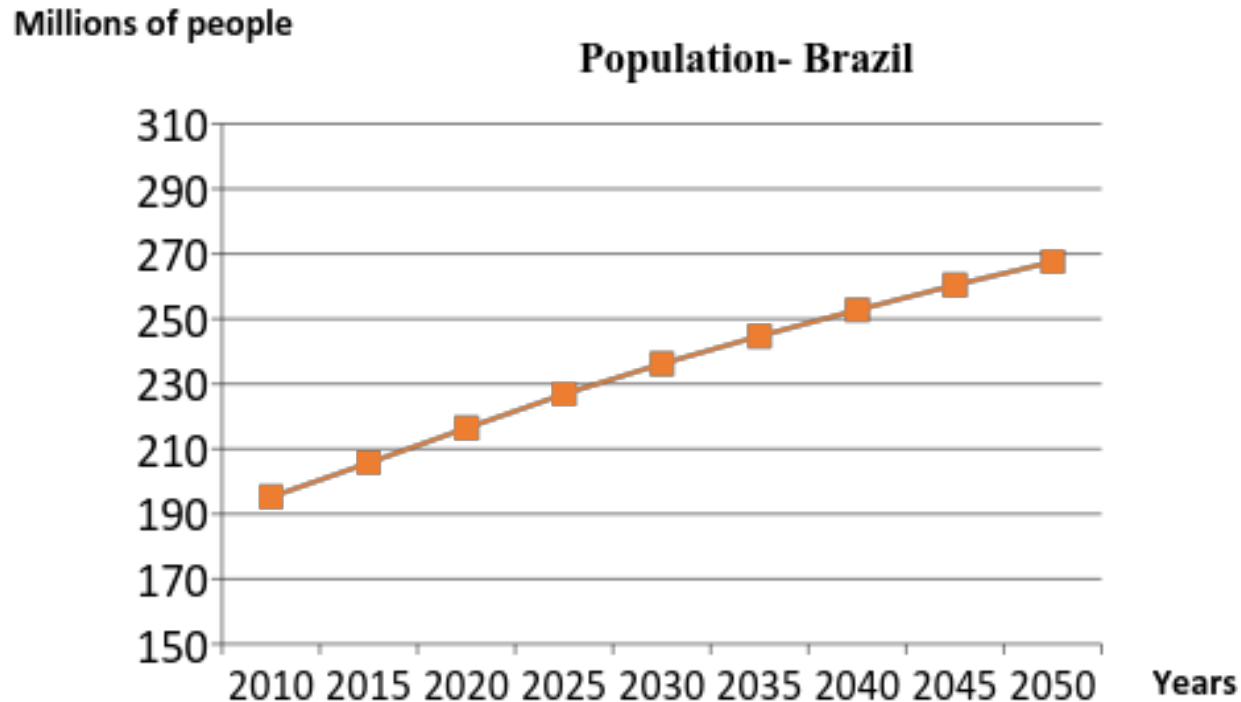
Brazil: Aiming at sustainable solutions

Located in the tropical region of the American Continent, Brazil is among the biggest economies of the world.



Brazil

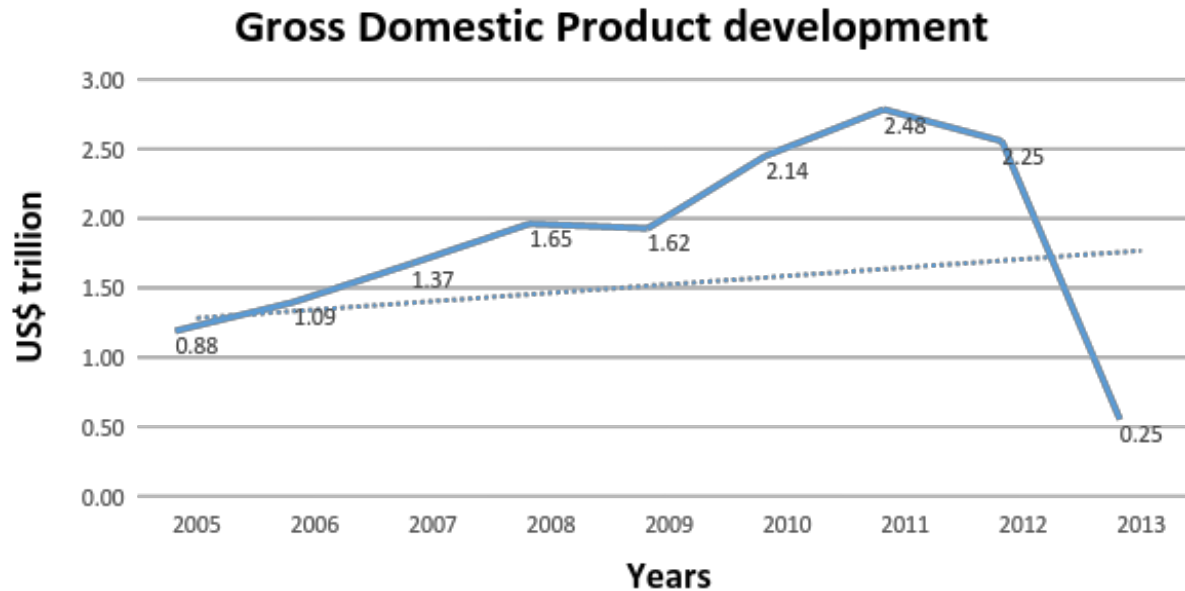
The South America emerging country



According to the United Nations (UN) , by the year of 2050 the Brazilian population will have exceeded 250 million people.

Brazil

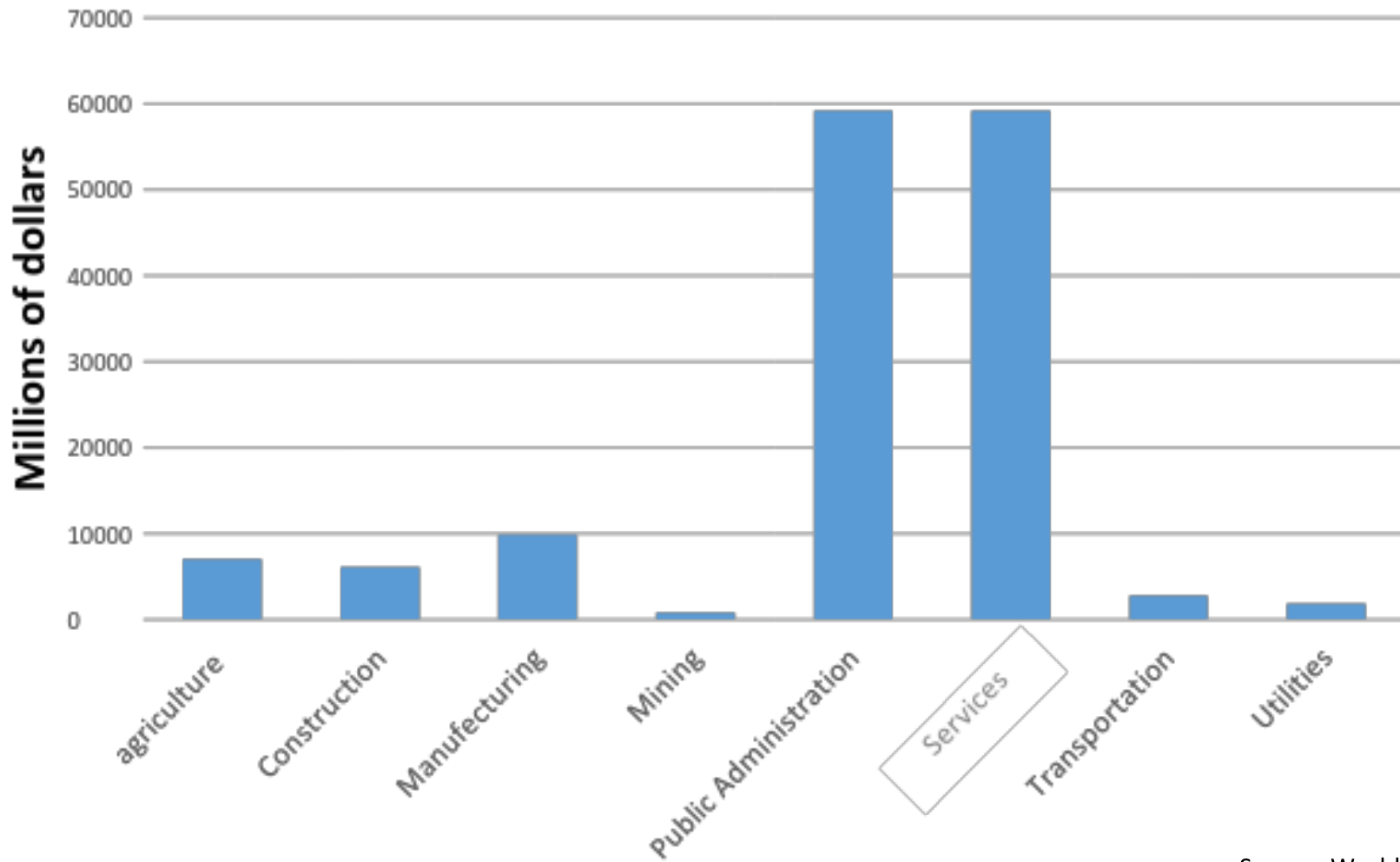
The South America emerging country



Source: World Bank Data

- Until 2011 the Brazilian economy had been gradually increasing however by 2012 it collapsed.

Brazilian GDP-2015



Source: World bank data

The crises for the world 8th biggest economy



Brazil is chosen to host the World Cup



Sao Paulo Water Dam incapable to fulfil its purpose



Sao Paulo's reservoir: NO WATER!

“confluence of facts leaded Brazil to collapse” .

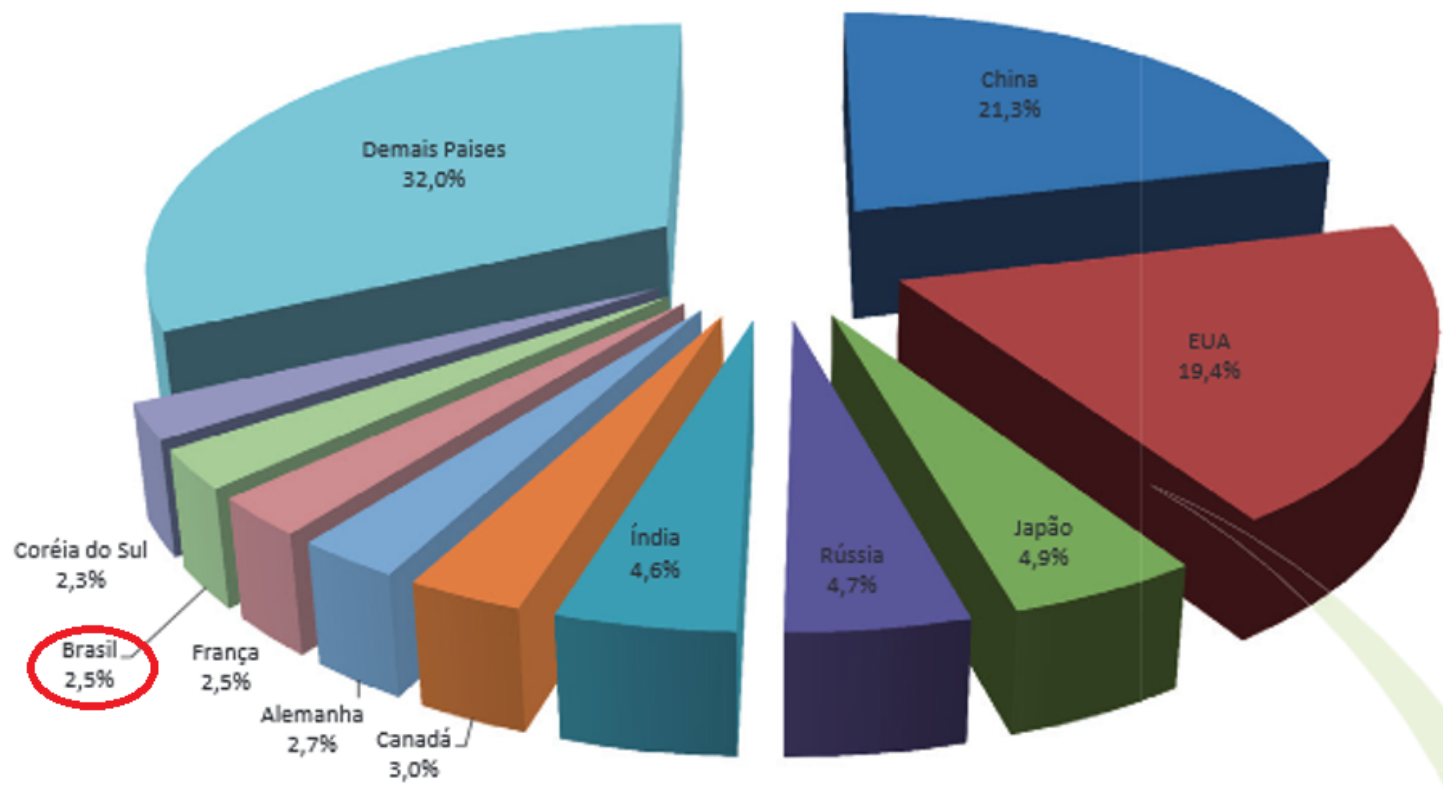
The crises for the world 8th biggest economy



The protests against Brazilian police go on around the country's biggest cities.

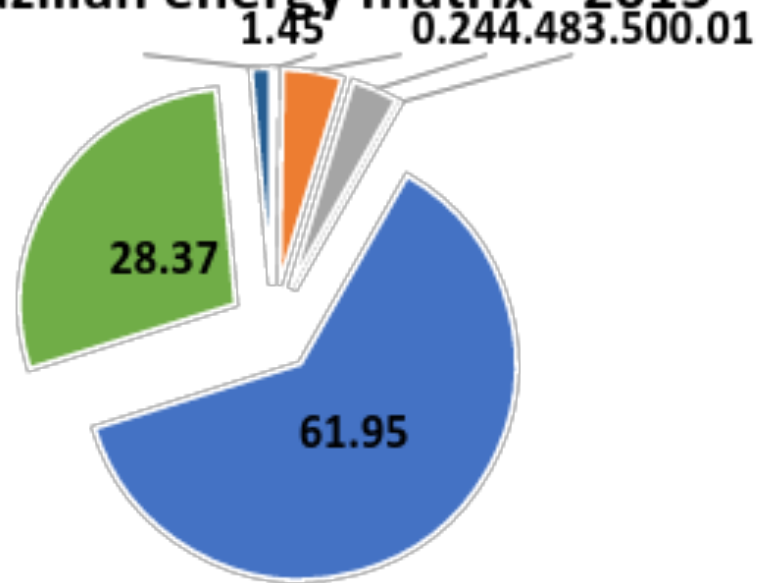
World Electricity Generation - top ten countries (%)

2011
(21.081 TWh)



Fonte: U.S. Energy Information Administration (EIA); Elaboração EPE

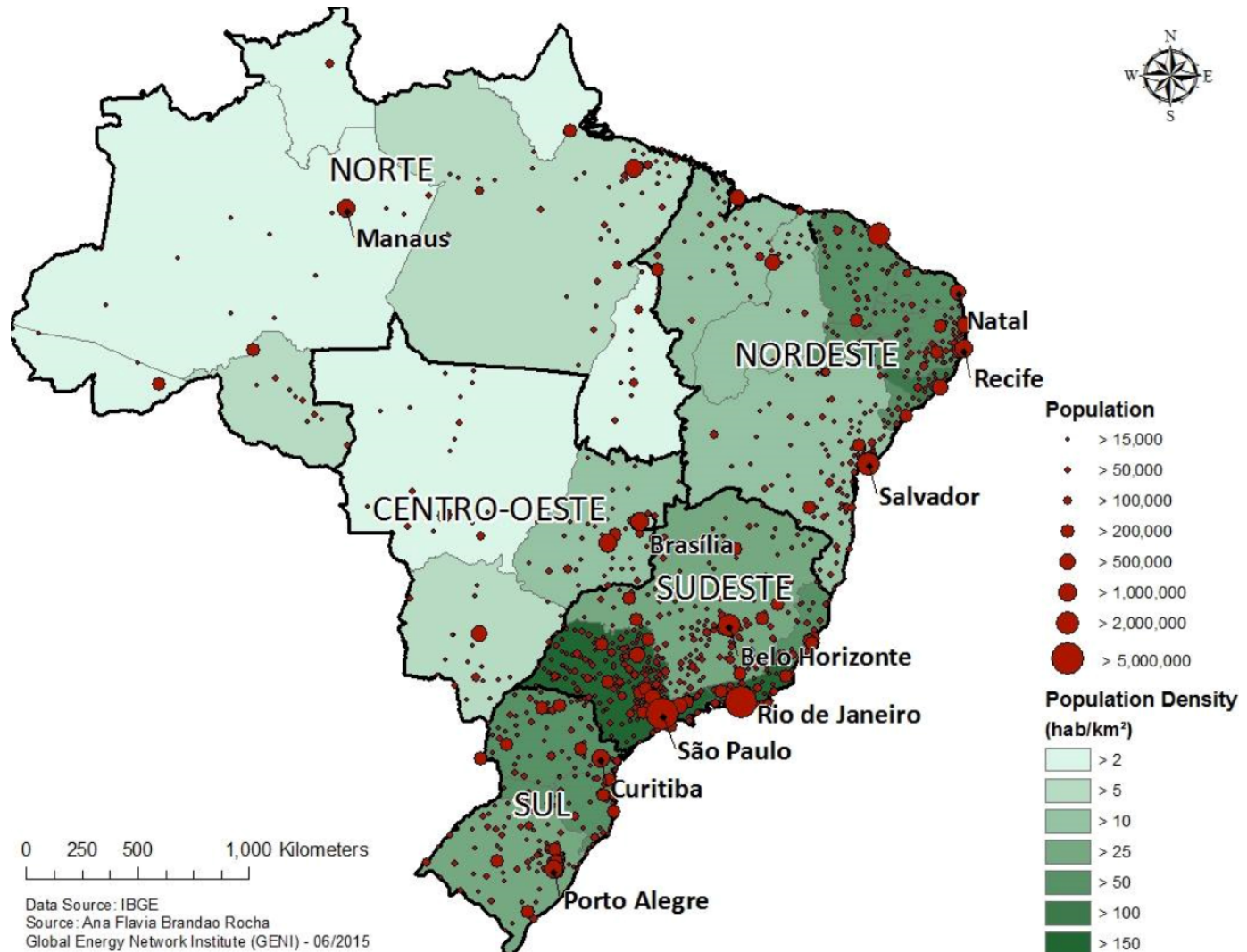
Brazilian energy matrix - 2015



- Hydroeletrical generation center
- Wind Generation Center
- Small hydroeletrical center
- Photovoltaic Solar Generation Center
- Hydro Power Plant
- Thermal Power Plant
- Nuclear Power Plant
- Under hydroeletrical generator Center

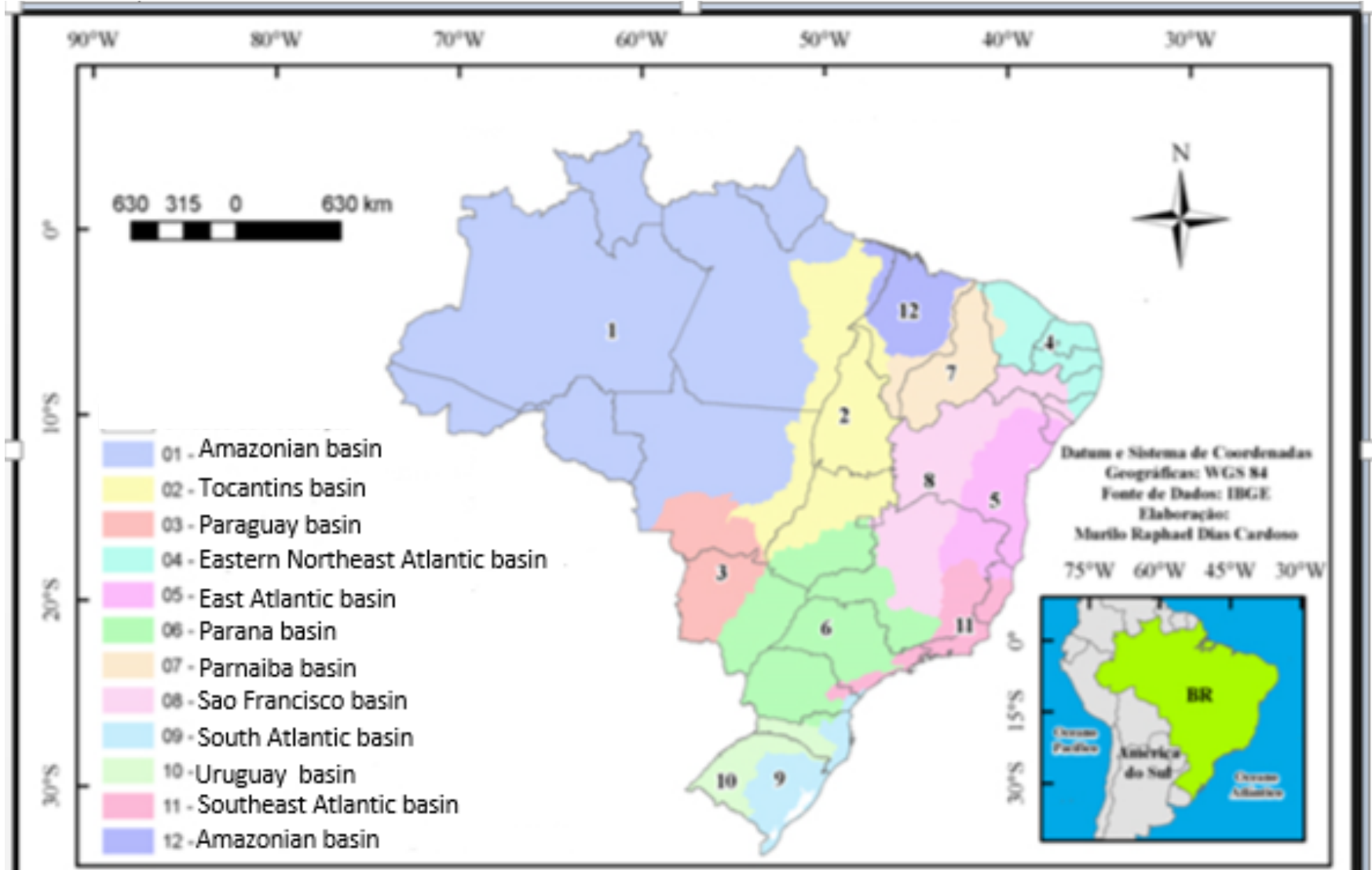
Source: Nacional Agency of electrical energy (ANEEL)

Brazilian Demographics

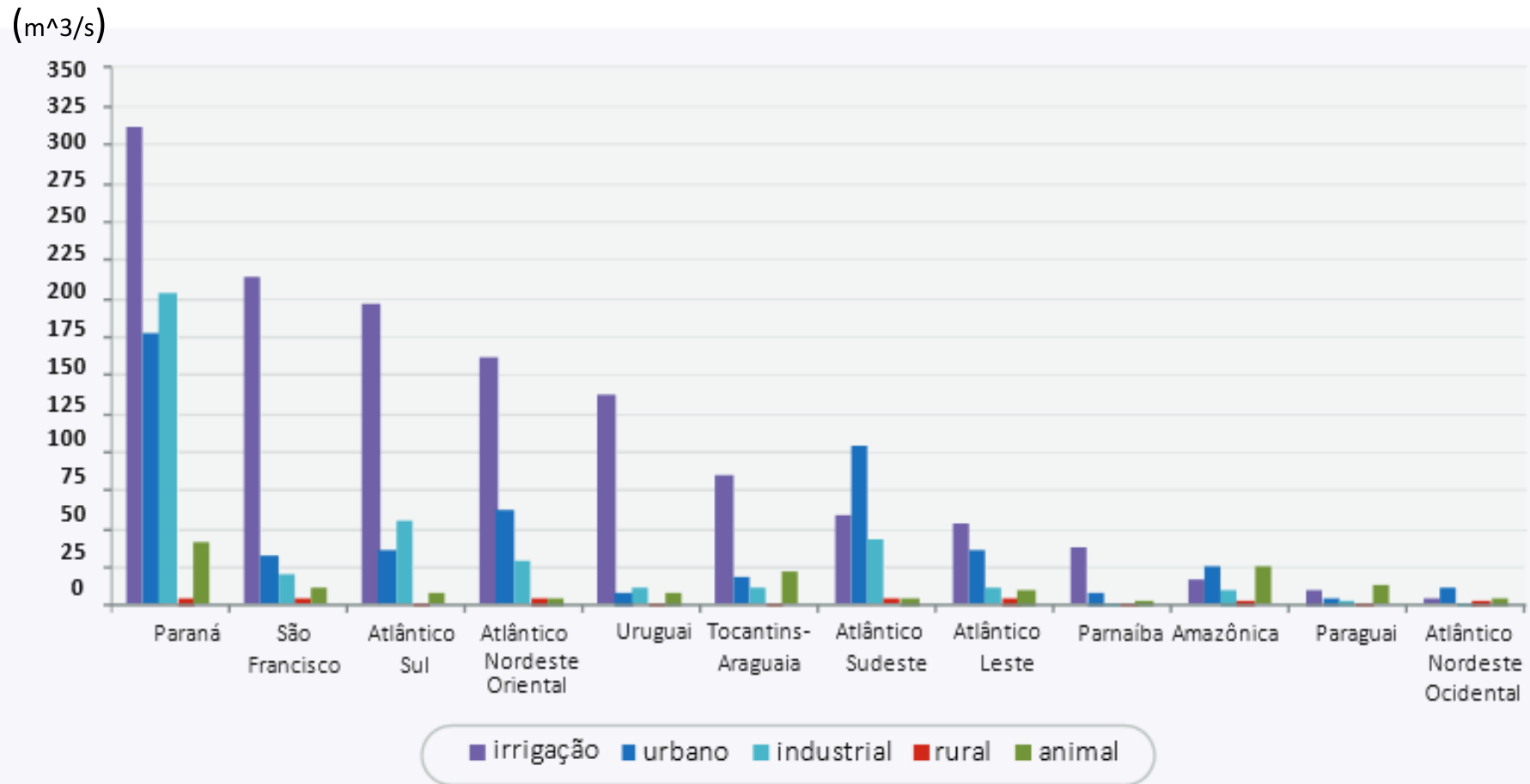


The Brazilian population is predominately located through out the coast line in the south, southeast and northeast areas.

Brazilian Water Basins



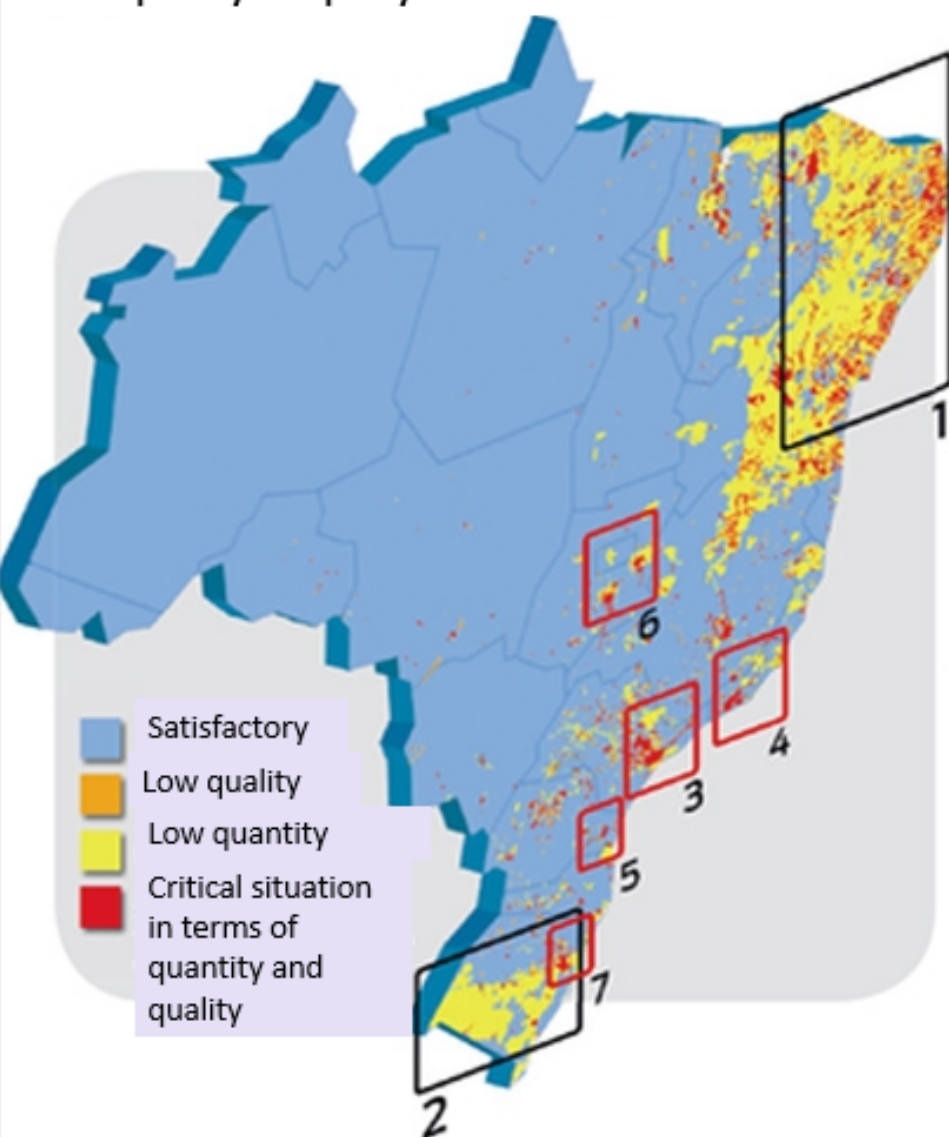
Water consumption by sector



Source: National Water Agency

Water Stress Map

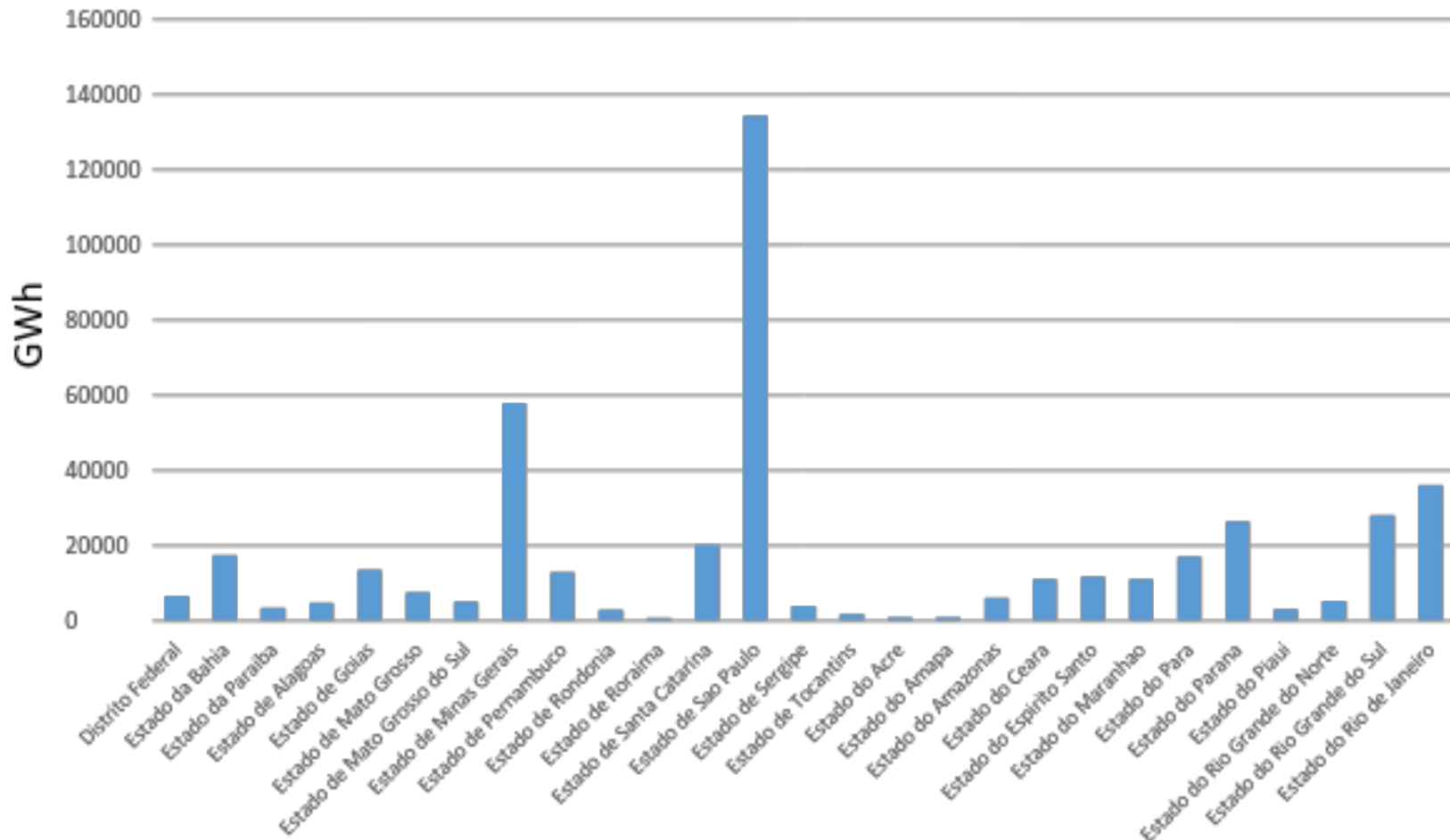
See where are the critical watersheds of Brazil according to the quantity and quality of available water.



- 1 Northeast: low hydro availability to meet demand.
- 2 Rio Grande do Sul: low hydro availability and high demand for irrigation (rice cultivation).
- 3 Metropolitan regions of São Paulo and Campinas: critical situation in terms quantitative (high demand) and qualitative (polluted water).
- 4 Metropolitan region of Rio de Janeiro: high demand and polluted water.
- 5 Metropolitan region of Curitiba: high demand of Alto Iguaçu watershed.
- 6 Distrito Federal and Goiânia: high demand and pollution in the Meia-Ponte watershed.
- 7 Metropolitan region of Porto Alegre: high demand and pollution.

Source: Agência Nacional de Águas.
Relatório de Conjuntura de Águas de 2013.

Electrical Energy Consumption by state



Almost 43% of the total Brazilian energy is used by Sao Paulo and Minas Gerais.

Sustainable measures

Energy matrix diversification

