

# The Brazilian Amazon

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The Amazon is the largest biome in Brazil, spanning 4,196,943 km<sup>2</sup>, an area 17 times the size of the United Kingdom, and six times bigger than the state of Texas<sup>1</sup>. It is dominated by tropical rainforest, which covers approximately 80% of the biome's total area<sup>2</sup>. The remainder is a mix of land cleared for agriculture and ranching (12%), other non-forested native ecosystems (2.5%), and water resources and settlement<sup>3</sup>.

## Water resources

The Amazon biome contains the largest watershed in the world and the river carries the highest volume of water of any river on the planet<sup>4</sup>. This provides an important water supply, numerous ecological benefits, and the river's tributaries also play a crucial role in



transportation. These cover a distance of 25,000 km<sup>5</sup> and are used each year by 2.5 million people to get around<sup>6</sup>.

### Biodiversity

The Brazilian Amazon is home to more than one third of all known species in the world<sup>7</sup>. It houses 30,000 species of plants, including 2,500 tree species, representing a third of the total



tropical timber volume worldwide<sup>8</sup>. The Amazon is also home to a diverse array of animals. It is estimated that 70% of the insects and spiders (Arthropods) have not yet been scientifically identified<sup>9</sup>.

Research carried out between 2014 and 2015 revealed 381 new species, including 93 species of fish and 20 mammals<sup>10</sup>. In 2016 a team of researchers discovered an extensive coral reef at the mouth of the Amazon river<sup>11</sup>, which plays an important role in providing shelter and food for fish and other animals.



**30,000 species of plants**

including 2,500 species of tree

### Climate regulation

The expansive body of dense forest in the Amazon is also of vital importance for climate regulation and drives weather systems both locally and around the world<sup>12</sup>. It provides a high level of annual rainfall, and triggers its own rainy season through water transpired by plants<sup>13</sup>. It has been estimated that the Amazon stocks between 90–140 billion tons of carbon<sup>14, 15</sup>, equivalent to roughly 12 years of global human carbon emissions at current rates<sup>16</sup>.



**90–140 billion tons of carbon**

stored by the Brazilian Amazon

## Peoples and communities

The Amazon is home to 180 different indigenous peoples – roughly 208,000 people<sup>17</sup>, who depend on the forest for food, clothing, medicine, livelihoods and cultural value. These include several of the world's last uncontacted communities, who are losing their territories as cattle ranch expansion, road construction and mining and logging (both legal and illegal) spread into previously remote areas<sup>18</sup>.



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The Amazon is also globally significant as a source of food and medicines, many of which are yet to be adopted conventionally.

### Threats

Approximately 5.5% of the Brazilian Amazon was deforested between 2001 and 2015<sup>19</sup>, a total area of over 200,000 km<sup>2</sup> (an area five times the size of Switzerland)<sup>20</sup>. This forest loss has

major impacts on biodiversity, ecosystem services, and climate change, as well as affecting indigenous and riverside communities. Although deforestation has been declining in the Amazon since 2004, in both 2015 and 2016 large increases occurred, with a 27% increase in 2016 alone<sup>21</sup>.

There are a wide array of drivers causing forest loss in the Amazon, but the biggest is the spread of agriculture, and specifically cattle ranching<sup>22</sup>. Cattle pastures cover some two-thirds of deforested lands in the Brazilian Amazon<sup>23, 24</sup>. Cattle ranching is also an important source of greenhouse gas emissions, releasing 340 million tonnes of carbon every year – 3.4% of total global emissions<sup>25</sup>.

Brazil's political instability, a lack of law enforcement and widespread poverty across the region have exacerbated deforestation, with a lack of coherent initiatives to support a shift to more sustainable development.



**Over 200,000km<sup>2</sup> of forest lost**  
between 2001 and 2015

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