



# Gran Chaco

The Gran Chaco biome is situated in a region west of the Paraguay River and east of the Andes<sup>1</sup>, spanning an area of 1.2 million km<sup>2</sup> across the South American continent — an area more than twice the size of France and three times that of California<sup>2,3</sup>. The largest dry forest in South America is found within the Gran Chaco. This is the second largest area of forest on the continent after the Amazon<sup>4</sup>.

The Gran Chaco contains a range of ecosystems including savannahs, grasslands, thorny forest, and woodland<sup>5</sup>. It spans several countries, with the largest proportion in Argentina (59%), followed by Paraguay (23%), Bolivia (13%) and Brazil (5%)<sup>6</sup>. As a result, the region is known by many names including the Dry Chaco and Chaco Plain.



## Biodiversity

The Gran Chaco is one of the most biodiverse areas in the southern hemisphere alongside the Amazon and Cerrado biomes. It is home to more than 145 mammals, 3,400 plant species, 500 bird species and 220 reptile and amphibian species<sup>7,8</sup>.

Of the 500 bird species, five are endemic to the Chaco, and 252 species are endemic to South America, reflecting the important role played by the Chaco biome in bird migration between regions<sup>9</sup>. Because of the expanse of the Chaco, there is a noticeable vegetation change from north to south, with distinct differences in temperature and average rainfall<sup>10</sup>.



## Home to the largest dry forest in South America

### People of the Chaco

The biome is a sparse and unevenly populated area with around 7.5 million people<sup>11</sup> living in a mix of high density urban areas, small towns and rural communities. The Chaco is home to a significant number of Argentines – with one in five living in the biome (20%)<sup>12</sup>. There are around 35 different indigenous communities living within the Chaco with a combined population of 250,000 people<sup>13</sup>. These include the “cazadores-recolectores” or “hunter-gathers” that live a nomadic lifestyle and depend on the rich biodiversity within the biome for their sustenance<sup>14</sup>.

### Climate Change

Compared to tropical humid forests, the dry forest areas of the Chaco experience seasonal changes in rainfall, temperature and climate<sup>15</sup>. Changes to the natural vegetation, including conversion to agriculture, can affect weather and temperature patterns. In recent years temperatures rose significantly in the



## One of the highest deforestation rates worldwide

Gran Chaco region, especially in the winter months<sup>16</sup>. Between 1985–2013, land use change led to 824 gigatons of carbon emissions across the entire Chaco<sup>17</sup>. This is equivalent to two years of the total carbon dioxide emissions from fuel combustion in the UK<sup>18</sup>.



## 824 gigatons of carbon emissions between 1985–2013, from land use change

### Deforestation in the Chaco

The Chaco has one of the highest deforestation rates worldwide, largely driven by agricultural expansion, and further facilitated by relaxed forest legislation<sup>19</sup>. Forests are cleared to make way for cattle production for commodities such as beef and leather<sup>20</sup>, after which the grazing land is later converted for soy cultivation<sup>21, 22</sup>. Cheap land prices, combined with a favourable climate for

agriculture and suitable cropland have led to some parts of the Chaco losing up to 2.2% of forest area per year<sup>2</sup>.

In addition to agricultural production, mining, hydroelectric dams, and charcoal production have all contributed to the degradation of the native vegetation in the Gran Chaco. Yet agricultural expansion, mainly driven by soy, remains the biggest

threat to the Gran Chaco<sup>23</sup>. Growing global demand for soy, combined with the development of drought resistant soy varieties, has expanded the areas of the Gran Chaco that are suitable for agriculture.

Additionally, the increased demand for and profitability of soy has driven an increase in land prices in many areas. In turn, the higher land prices incentivise the sale of existing cattle pasture land for soy, and new, lower value forest areas are cleared to expand available land for cattle pasture<sup>24</sup>. The cycle of land use change continues to threaten the remaining native vegetation in the Gran Chaco.



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## Agricultural expansion is the biggest threat to the Gran Chaco

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