

## Atacama Desert, Chile

The Atacama Desert is situated between the Andes Mountains and the Chilean Coastal Mountains at an altitude of 4,000m. The desert covers an area of 105,000 km<sup>2</sup>. It is 960 km wide and runs from southern Peru to northern Chile. The Atacama Desert is 50 times drier than Death Valley, and is officially the driest place on the planet. It receives almost no rain.



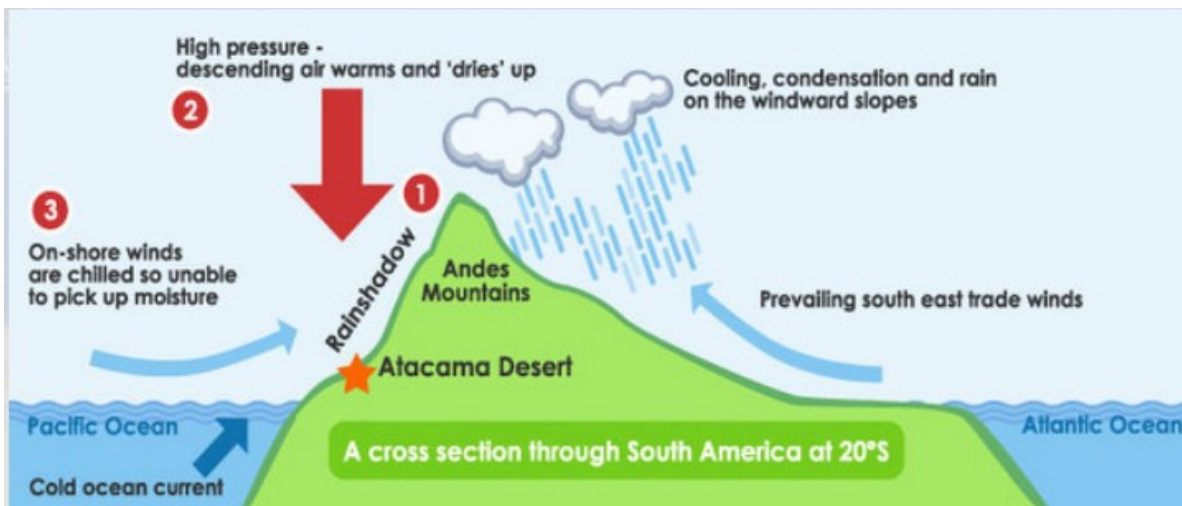
The average rainfall is about 15 mm per year, although some locations receive 1 to 3 mm in a year. Some weather stations in the Atacama have never received rain. The center of Atacama rarely sees rain. But, due to changing climate over the Pacific Ocean, that part of the desert received a little rain twice in 2015 and once in 2017.

The desert is at a height that prevents moisture from reaching it, either from the Pacific or Atlantic Ocean. It is located in the "rain shadow" between the two mountain ranges. Also, winds called the "Pacific Anticyclone" blow dry air into the Atacama Desert.

Very few animals have adapted to this barren landscape. The small numbers of insects in the region become the prey of lizards, and birds of prey can sometimes be seen hunting for prey. Mammals are rarely seen, but mice and foxes have occasionally been seen. Some parts of the desert are so arid, that no plants or animals can survive. There is also very little vegetation in the desert. Some examples are Mesquite trees, salt bush, tufted grass, rice grass, ferns, black sage and chrysothamnus.

There are 3 reasons why the desert is so dry:

- 1) It is situated on the "wrong" side of the Andes with regards to the prevailing south-east winds. The rain always falls on the other side of the Andes. The desert is in an area called a "rain shadow".



2) The high air pressure in the region turns moisture to water vapour - gas, not liquid.

3) The cold ocean current from the Pacific Ocean means that the on-shore winds are chilled, so they cannot pick up moisture from the ocean.

Cumulatively, the effect of these three points creates the driest place on earth.

The temperature in the Atacama Desert can reach 40°C during the day, and can fall to 5°C at night.

The Atacama Desert is the location of the "Atacama Crossing" - an endurance race involving many ascents and descents, over a period of 7 days.

The Atacama Desert contains the world's largest supply of sodium nitrate, making it a valuable resource. As a result, the area was mined significantly in the 1940s. Many mining towns are now abandoned. In the 1800s, the Atacama Desert was at the center of a land dispute between Bolivia and Chile. Both nations claimed that they were the owner of the northeastern part of the desert, and this caused the "War of the Pacific" (1879-1884). Chile ultimately emerged as the victor, keeping control of the Atacama Desert in its entirety.

Source: <https://www.beautifulworld.com/south-america/chile/atacama-desert/>