IN Spanish “Salar” means salt flats whereas Uyuni, which is a gateway town to the Salar means a pen (enclosure) in Ayrama language, therefore the term “The Salar de Uyuni” can loosely be translated as a salt flat with enclosures. The Salar de Uyuni is one of the amazing natural marvels where one can experience the illusion of walking on water.

Formation and geological history of the Salar can be traced by the cyclical changes in the regional climate of the place. The salt flat is basically the remnant of huge lakes that once occupied much of the Bolivian Altiplano in the late Pleistocene. Approximately 40,000 years ago, the region was part of a giant lake named Lake Minchin, which underwent a series of transformations between several huge prehistoric lakes like Tauca lake, and gradually evaporated leaving behind the two modern lakes (Lagos Poopó & Uru Uru), and two salt deserts namely Salar de Uyuni and Salar de Coipasa.

Under the surface of the salt flat lie significant resources of salt, magnesium, potassium & boron as well as lithium brine deposits. The most valuable key component of the Salar
**The Salar de Uyuni, the world's largest salt flat, is the part of the Altiplano plateau of Bolivia in South America, covering around 10,582 km² at an altitude of 11,995 ft. It is one of the unique and important ecosystems and is used to calibrate the altimeters on board satellites.**

is a blue-green brine filled lithium—the lightest element, which has many industrial applications like lithium-batteries, etc. The Salar is the place of enormous lithium reserve, which is known to have 50%-70% of the world’s lithium resource which is extracted to be used in batteries. A flat salt crust covers the Salar with varying thickness between tens of centimetres to a few metres. The crust is extremely porous and mainly composed of halite and gypsum minerals.

Few islands can also be spotted in the centre of the Salar, which are the remnants of the peaks of the ancient volcanoes protruding from the salt flats forming the ‘islands’. These islands comprise fragile and rare coral-like structures that often contain algae and fossils. In the monsoon season, when lake Titicaca (large, deep neighbour lake of Lagos Poopó) overflows, it discharges into Lagos Poopó, which in turn floods Salar de Uyuni and Salar de Coipasa. The flooded salt lake then appears like a big mirror which creates a clear mirror image of the sky above.

Although the salt flat appears perfectly flat to the naked eye, GPS reveals a slight difference in elevation ranging from few centimetres to half a metre and spanning over distances of tens of kilometres or more. Hence, Salar, which is large with stable surface and strong reflection can be used as a reference spot for highly accurate satellite-based ranging equipments and is used to calibrate the altimeters of earth-orbiting satellites.

Normally, the area is devoid of any vegetation and wildlife except giant cacti, which is the only vegetation in Salar along with few shrubs and bushes. Every November three kinds of pink South American Flamingo congregate on the salt flats to breed. Including the horned coot, the Andean goose and the Andean Hillstar, eighty other bird species are found there.

Salar de Uyuni is one of the most captivating landscapes in the world created by amazing geothermal springs, geological formations and brine lakes.