



PREEMPTIVE
Feb 2019
San José, Costa Rica

COSTA RICAN CENTRAL VALLEY

GENERAL INFORMATION

Geography

The Central Valley of Costa Rica (“Valle Central” or “Meseta Central”) is a plateau that includes portions of the provinces of San José, Cartago, Heredia and Alajuela. This region is home of more than 50% of the country's total population, which makes it the most important economic center in the country. There are some important volcanoes such as Poás, Turrialba, Barva and Irazú. At south is surrounded by the Talamanca mountain range, which the longest in the country and where the “Cerro Chirripó” is located.

This region tends to have smooth hills and elevations, which increase towards the mountains that define the valley. It does not present extreme variations or geographic features in huge magnitude (Costa Rica Guides, 2011).



Climate

Its average height is around 1160 meters above the sea level, which results in temperatures between 12 and 35° C, however the average temperature is around 20° C. Like most of the country, it has 2 well-defined seasons: dry season (November-April) and rainy season (May-October) (Rojas, 2011). In addition, humidity values are close to 60%.

Culture

There is a great diversity of ethnic groups, which makes the area multicultural, with a predominant Spanish heritage. The Costa Rican traditions are reflected in places such as the Central Market of San José, the “Basilica de los Ángeles” in Cartago, the “Plaza de la Cultura”, among others. Some traditions of the region are the bullfights (Costa Rican style), the parades of independence and the festivals that commemorate the founding of the different towns and cities. There are also places like “Sarchí” and “Zarcero” that are home to traditional art of the country such as wheel carts and pine trees (Costa Rica Guides, 2011).

Infrastructure

- The majority of the government institutions, services, hospitals, among many other important infrastructure is located in the Central Valley because of the great amount of population concentrated in the area. The following are a few examples of the Central Valley infrastructure:
- “Juan Santamaria” International Airport: it was founded in 1958 in the city of Alajuela, and is named after a national hero. Annually, it receives nearly 4 million people. Also, due to the increase of the demand, at the end of 2018, an airport expansion project was started.
- National Stadium: is located at “La Sabana” Metropolitan Park and has a capacity of 35.000 spectators. It was a gift from the Chinese government and was inaugurated in 2011 after nearly 2 years of construction. It is known by Costa Ricans as the “Sabana Jewel” because its structure has the form of a coffee bean, which has played a central role on the economy of the country since the 1800’s (it has been called “the golden bean”).
- National Theater: founded in 1897 thanks to the commercialization of Costa Rican coffee, it’s nowadays one of the most important historical and cultural treasures of the country due to its architectural beauty and its symbolism of wealth and prosperity.
- Route 27 and Route 32: these are very important highways of the country since they are the main roads that connect the Central Valley to the Pacific and Atlantic coasts, respectively. Also, Route 32 is known for having the “Zurquí” tunnel, which is 560 meters long and trespasses the “Hondura” hill.

IRAZÚ VOLCANO

Irazú volcano is located 30 km of the northeast of Cartago city. It belongs to the central mountain range of Costa Rica and it the highest volcano of the country with 3432 meters above the sea level.

Geomorphology

Its Caribbean flank is strongly eroded, has a deep canyon, large landslides and abrupt and tectonized topography. Despite this, the volcano still preserves its original morphology of shield volcano. The pacific flank has a softer slope than Caribbean flank (RSN-UCR-ICE, 2018). The Irazú volcano has an irregular sub conical shape.

The Irazú Volcano has three principal structures. One of the structures is an active crater in the northeast (~ 1000 meters diameter, ~180 meters maximum depth), which has a lake and its color and characteristics are changing continually. The lake shape is oblong with average diameter between 350 and 150 meters and its depth is around 17 meters (Alvarado, Ramirez, & Cordero, 2013).

Another structure is the crater named Diego de la Haya Fernandez. This one is located to the north of the caldera, about 80 meters deep and elongated to the east. Also, in the east side of the crater Diego de la Haya a pyroclastic cone remains still existing. The cone is border in the east and south with remains of two crater structures (Alvarado G. , 2006). Finally, in the south side is located a long semi flat structure, a volcanic terrace called “Playa Hermosa”.



Geology of the Irazú Volcano

Since several stratovolcanoes haven't grown, they have been destroyed, and a new cone grew over their remains. Therefore, Irazú geology is considered to be highly complex (RSN-UCR-ICE, 2018). Soil deposits in the volcano are constituted by andesites, basaltic andesites and basalts alternate with pyroclastic rocks. Deposits of large volcanic landslides can be found in its base. In the east there's ashes and alluvial deposits that cover older lava.

Volcanic activity on the 1960's

In the 1960's the Irazú Volcano had an intense activity that affected the Central Valley. The headlines of the newspapers made multiple references to the ash clouds caused by the volcano. This decade was the most intense Irazú volcano activity in the recent history of Costa Rica. Between 1963 and 1965 the volcano had violent eruptions. The town of Taras was destroyed by lahars at that time. Strombolian-phreatomagmatic activity had place into the volcano.

Recommendations for the trip

- Wear closed shoes
- Wear long pants
- Bring a jacket (temperature ~10°C / 50°F)

REFERENCES

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Recommendations



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