In this work we present a study of the relation between regional tectonic and seismic noise activity in Canary Islands, from the year 2004 to present. We analyze the seismic continuous signal of 10 seismic stations in Canary Islands, 4 of which are located on Tenerife Island, 3 of these in the Teide caldera. We make a comparison of the signal of all islands and we study their response to the occurrence of regional tectonic earthquakes with magnitude greater than 4, occurred between latitudes 20 ° N and 40 ° N, and longitudes -45 ° and 0 °, approximately bounded by the Azores-Gibraltar fault to the North, by the mid-Atlantic ridge to the West, and by the trans-Agadir fault to the East.

The results show that a correlation exists between the occurrence of earthquakes at the border of the plate and changes in the seismic noise recorded in the islands. In some cases the seismic stations within the caldera show a much greater change. The anomalous behavior in the caldera may be related to a process of unrest.