About the Institute

The Volcanological and Seismological Observatory of Costa Rica, Universidad Nacional (OVSICORI-A) is a University Research Institute dedicated to research of volcanoes, earthquakes and other tectonic processes, in order to find useful apps that help to society mitigate the adverse effects of these phenomena to economic and social development. A considerable amount of effort is an observatory, because it will document oriented seismic, volcanic activity and crustal deformation, which in turn feeds back to the characteristics of a university research institute research activities.

In 1984, the OVSICORI-A initiates the operation of a seismographic network designed to monitor seismic and volcanic activity throughout the national territory. The main objective of the seismographic network is the documentation of the third cycle of high seismic energy release of the twentieth century, whose imminence was suggested by studies carried out with Costa Rican and American scientists in 1983.

Currently the seismographic network has an analogue and a digital record. The latter allows online analysis of seismic signals, which allows to expedite the analysis of signals and their study using modern computer methods.

The seismographic network OVSICORI born thanks to funding provided by the "Project for the installation of a permanent seismographic network in Costa Rica and the establishment of a program to reduce hazards caused by earthquakes", Office of Disaster Assistance Abroad Agency for International Development (OFDA-AID).

The OVSICORI-A also conduct tectonic crustal deformation associated with the occurrence of large earthquakes in Costa Rica. Thus, as post-earthquake Valley 7.7 magnitude star with uprisings near 1.5 m were documented in Puerto Limon. Deformation studies are conducted by surveyors using instrumental conventional geodetic as distance meters or theodolites accuracy or high technology such as the global positioning system satellite (GPS), in coordination with specialized research centers such as the Laboratory Jet Propulsion NASA.

After nearly three decades of work by the seismographic network, databases OVSICORI represent the greatest potential for the country to study the seismic zoning of volcanic threat and monitoring for spatial planning to bequeath to future generations . Today, innovative studies of great social impact are running, in order to mitigate the impact of future earthquakes and volcanoes in Costa Rica. It is noteworthy sustained effort OVSICORI to train officials at the highest level and to graduate with masters and scholars to its scientists at prestigious universities in the United States, Europe and Asia doctorates, resulting in academic conglomerate highest in Central America in its field.

Over the past 15 years OVSICORI-A received financial support from OFDA-AID, the National Council for Scientific Research (CONICIT) of research projects developed at the University of California in Santa Cruz, with funding from the National Science Foundation and Geological Survey of the United States, with the Jet Propulsion Laboratory of NASA, and other universities worldwide. He has also been the recipient of international aid institutions in France, England, Sweden, Japan and Norway. The Center for the Prevention of Natural Disasters in Central America (CEPREDENAC) is a

regional organization that works with Swedish and Norwegian funding, has made significant economic contributions to the training of staff OVSICORI.

The OVSICORI-A develops an ongoing program of observation, monitoring and analysis of volcanic activity, for the timely recognition of potential volcanic hazards that may impact the country.

Currently used for volcano monitoring the most common methodologies in this field worldwide. They are studying the seismic signals from volcanoes, for geodetic deformation associated with magma movement beneath the surface and the chemical composition of volcanic gases. In parallel, the OVSICORI-A volcanic hazard studies performed to recognize long-term trends in medium-eruptive patterns of Costa Rica volcanoes that must be taken into account in land use planning.