

New Ecuadorian National Glacier Inventory

Bolívar Ernesto Cáceres Correa
INAMHI, Glaciares, Quito, Ecuador (ernestocaceres2002@yahoo.com.mx)

The first systematic Ecuadorian glacier inventory was performed in the early nineties. At that time the ice coverage corresponded to 92 KM². The second systematic glacier inventory published in 1997 showed an area of 60 km² of ice. In 2010 another research was carried out and a value of 48 Km² was obtained. During 2016-2017 a new inventory was done for glaciers coverage using update aerial photographs. The objective of this research was to establish the reduction of the glaciers of Cotopaxi and Chimborazo volcanoes and the risk associated with this process. Another important area of study correspond to the documentation of the extinction of Carihuayrazo Glacier which present area is of 0.03 Km². This evaluation showed the response of Ecuadorian glaciers during the last seven years in relation to climatic conditions along the Ecuadorian Andes as a part of Tropical Glaciers. The coverage of these three glaciers was also affected by ash falls. The main results showed an average reduction of 4.1% for each coverage (seven ice caps). At present the total glacier coverage in Ecuador is of 43.5 km² approximately and the equilibrium line altitude was placed at 5120 m.a.s.l .in average.