GLACIER MONITORING: ECUADOR

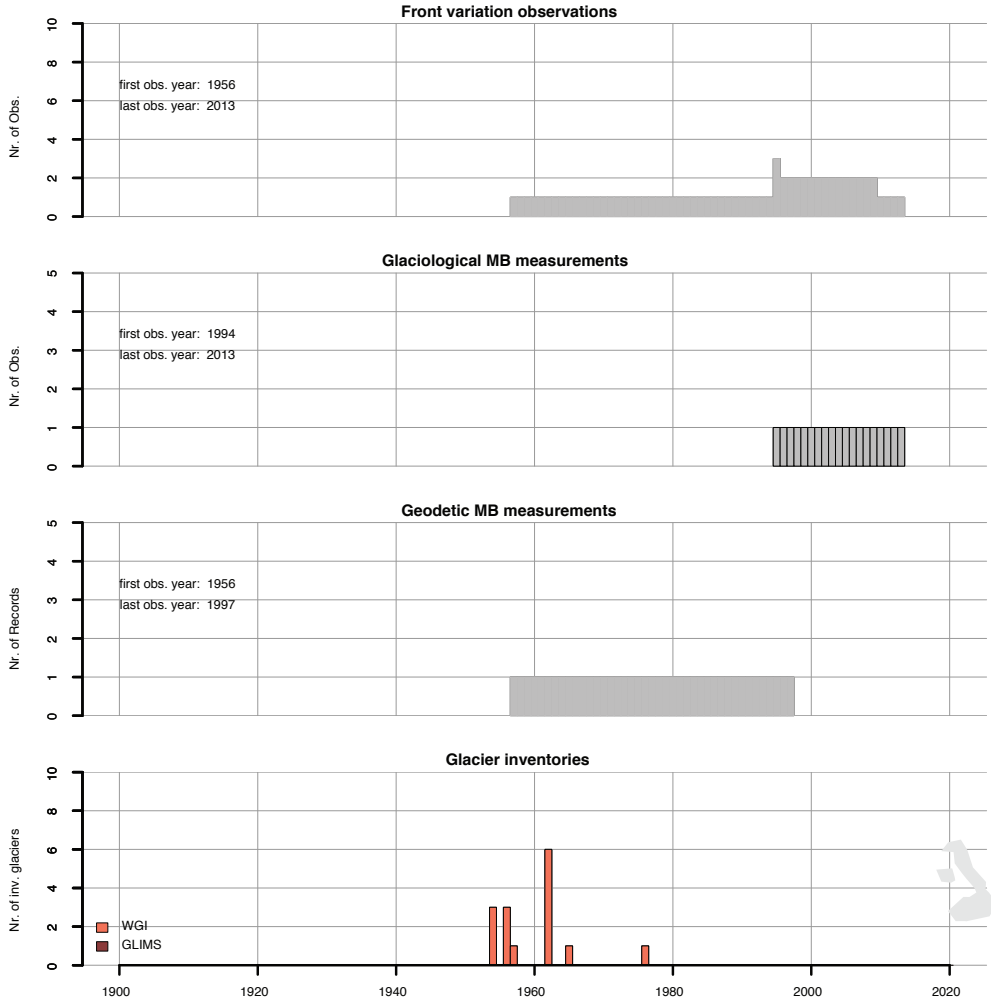
Glaciers in Ecuador are tropical glaciers, often situated on volcano tops. Only a very small number is inventoried or investigated.

Key statistics

total glaciated area: 124 km^2
total coverage WGI: 32 %
total coverage GLIMS: 0 %

	Front Variation	Mass Balance	Thickness Change
Number of series:	1	1	1
Average length [years]:	48	18	32
Average number of observations:	21	19	3

Available series



A very small number of front variation series is available from glaciers in Ecuador, covering the period 1956 to 2013. Mass balance measurements are conducted on one glacier (Antizana 15 Alpha), starting in 1995 only. One series on thickness changes is availabe from the second half of the 20th century. Several glacier inventories have been compiled (WGI), covering only 8% of the glaciated area.

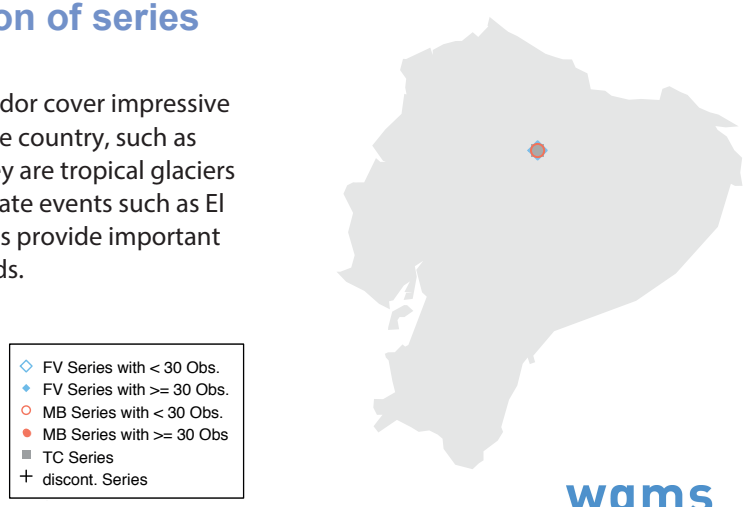
Present state

Glacier monitoring carried out by one research group.	Strengthen glacier monitoring activities within the country as well as the international collaboration.
One glacier with long-term mass balance programmes based on both glaciological and geodetic methods and including energy balance studies.	Secure the long-term monitoring programme at Antizana 15 Alpha Glacier.
Only one mass balance series is available	Ensure the continuation of this long-term series and report additional measurements if available.
Very few front variation series and geodetic change assessments.	Encourage remotely sensed assessments of glacier changes in length, area and volume for all glacierized volcanos.
National inventory (WGI) incomplete. No digital glacier outlines in GLIMS at time of this assessment.	Complete glacier inventories with remote sensing data. Plan next repeat inventory towards 2020.

Future potential/needs

Spatial distribution of series

Most of the glaciers in Ecuador cover impressive volcanos in the center of the country, such as Antisana and Cotopaxi. They are tropical glaciers strongly influenced by climate events such as El Nino or La Nina. The glaciers provide important water supply to the lowlands.



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