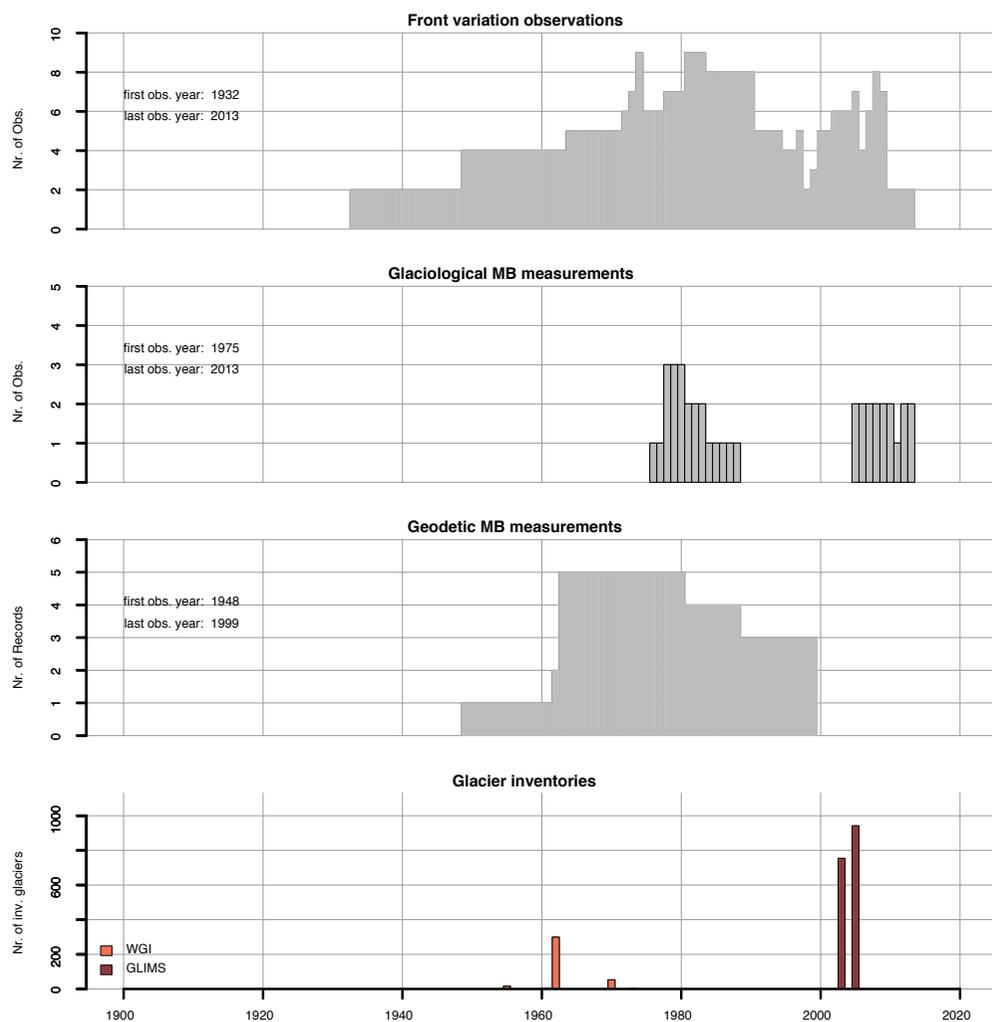


GLACIER MONITORING: PERU

Glaciers in Peru have an important impact on landscape and ecosystems. Only a very small number is inventoried or investigated.

Available series



A number of front variation series is available in Peru since 1932, with peaks in the 1980s and around 2005. Mass balance measurements are measured on a few glaciers only, and no long-term monitoring exists so far. A small number of thickness change measurements is available for the second half of the 20th century. Glacier inventories have been compiled by WGI and GLIMS, covering 14 and 32% of the glacierized area respectively.

Key statistics

	Front Variation	Mass Balance	Thickness Change
total glacierized area: 1'603 km ²	15	4	5
total coverage WGI: 67 %	21	13	1
total coverage GLIMS: 32 %	12	10	1
Number of series:			
Average length [years]:			
Average number of observations:			

Present state

Glacier monitoring carried out by a few research groups, one National Institute for Glacier Research.

No long-term and detailed monitoring programme.

Some mass balance measurements available from a few glaciers.

About a dozen front variation and geodetic observations, covering the period since the late 1930s, and the second half of the 20th century, respectively.

Only partial coverage in both WGI and GLIMS datasets (outlines from the beginning of 21st century)

Future potential/needs

Strengthen glacier monitoring activities within the country as well as the international collaboration.

Promotion of one or a few benchmark glaciers for long-term and detailed measurement programmes for process understanding and model calibration.

Continue and extend mass balance network, aim for good coverage of different glacier regions. Account for glacier peculiarities (e.g., formation of ice cliffs in ablation area, accessibility of accumulation area).

Encourage remotely sensed assessments of glacier changes in length, area and volume.

Complete glacier inventories with remote sensing data. Plan next repeat inventory towards 2020.

Spatial distribution of series

Peru has a glacierized area of about 1600 km². Most glaciers are situated in the Cordillera Blanca and indicate high melting rates. The melting glaciers have a considerable impact on the landscape and the society, as they provide e.g. water to the capital Lima, one of the most "water-stressed" capitals in the world. Hence, there is a strong need for a systematic glacier monitoring.

