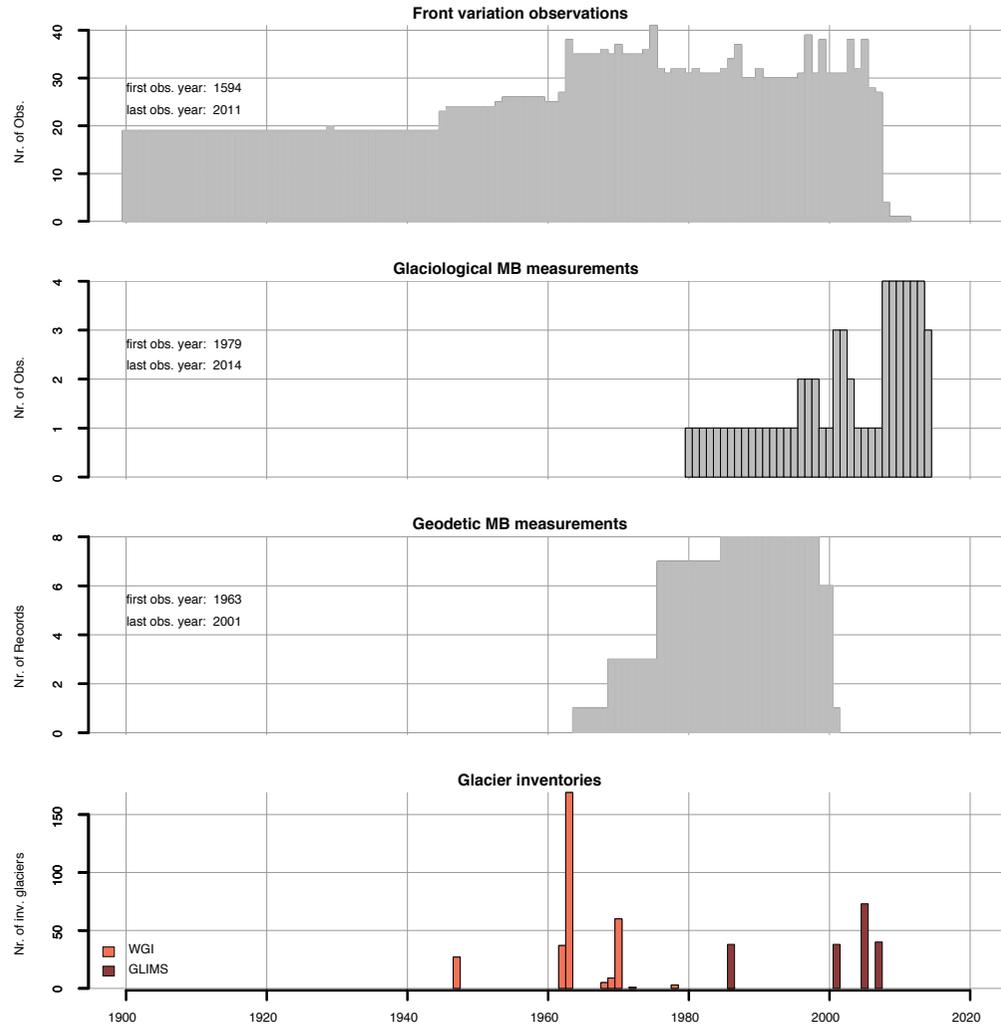


GLACIER MONITORING: ARGENTINA

Glaciers in Argentina play an important role, for water exploitation as well as for tourism (e.g. at well-known Perito Moreno glacier [35°S]). But, only a small number of glaciers is monitored. There have been observed a few cases of surging glaciers, the most recent being Horcones Inferior.

Available series



With a total of 49 series and a glaciated area of more than 4,000 km², the glacier monitoring network in Argentina is relatively thin, as per 2015. Front variation observation started in 1594. While several front variation series exist over the 20th century, only one long-term mass balance series is available. The inventories include up to more than 150 glaciers and cover up to 76% of the glaciated area.

Key statistics

	Front Variation	Mass Balance	Thickness Change
total glaciated area: 4'661 km ²	35	7	7
total coverage WGI: 66 %	125	8	1
total coverage GLIMS: 76 %	8	9	1

Present state

National monitoring is carried out by various research groups, well-coordinated by the national correspondent. The establishment of a glacier law has helped to improve the funding situation.

Only one long-term mass balance programme with more than ten ongoing observation years exists in Argentina.

Limited number of mass balance sites with typically not more than a few years of observations.

Several front variation series covering the second half of the 20th century, some extending into the LIA period based on reconstructions. Very limited geodetic observations available.

The glacierized area is only partly covered by detailed inventories in WGI and GLIMS.

Future potential/needs

Maintain the coordination and collaboration among the various research groups. Strengthen the collaboration with the Chilean colleagues, especially in view of the trans-national monitoring of the Southern Patagonian Icefield.

Emphasize the need for at least one national site for long-term glacier monitoring enriched with detailed process studies.

Encourage long-term mass balance studies well distributed over the diverse geographical setting of the country, combining glaciological and geodetic methods.

Encourage remotely sensed assessments of glacier changes in length, area and volume with a focus on the Southern Patagonian Icefield as well as on the other glacierized regions.

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

Spatial distribution of series

Glaciers in Argentina are widespread along the Andes. The largest ice cover is found in the South Patagonian Icefield, where high thinning rates have been observed recently. The number of monitoring series is limited, but the well-coordinated network would be able to set up a number of longterm monitoring sites.

