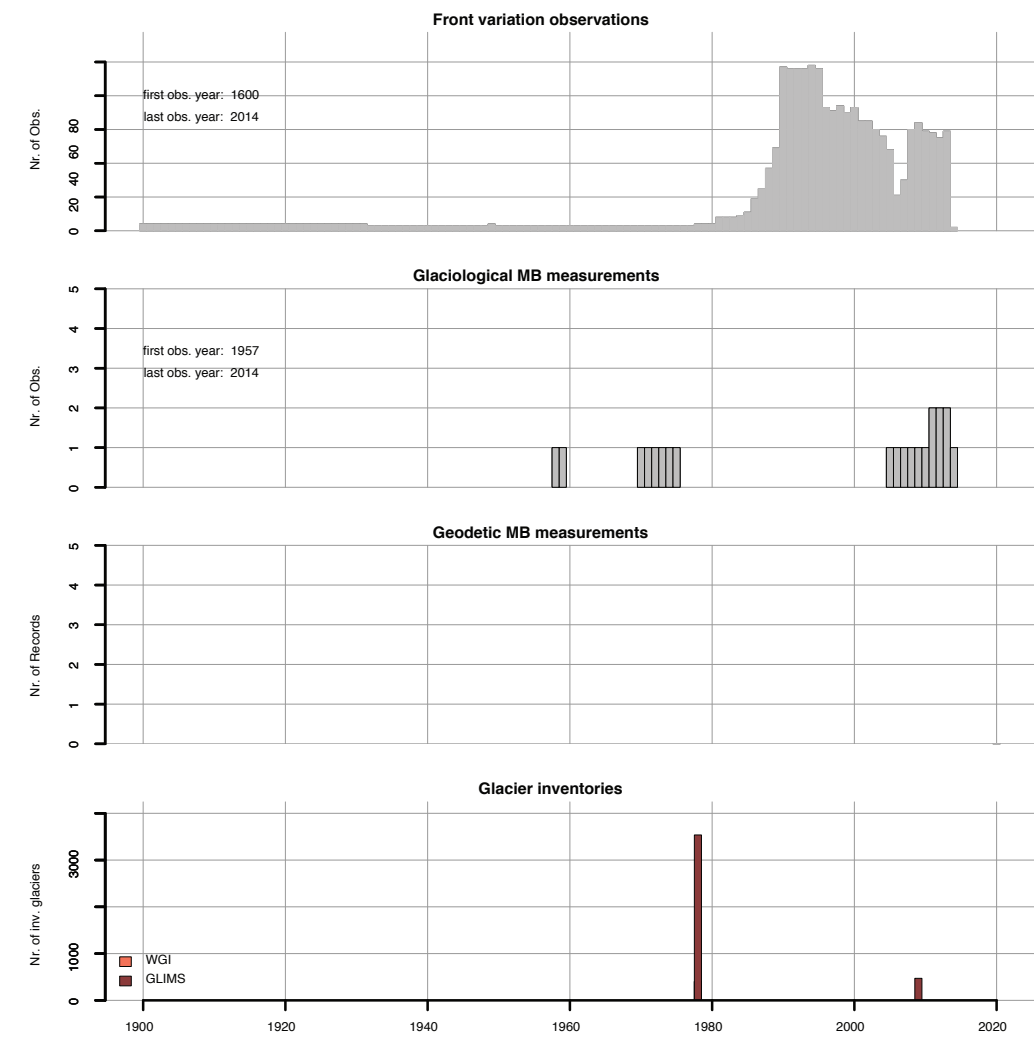


GLACIER MONITORING: NEW ZEALAND

New Zealand has a total ice-covered area of more than 1 100 km². Even though the available observations are spatially well distributed, long-term and continuous measurement series are sparse.

Available series



A comparatively high number of front variation series is available in New Zealand, since the 1980s, with a peak in the 1990s. Long-term glaciological mass balance measurements are available for one glacier only and thickness change measurements are not available at all. Glacier inventories are provided by GLIMS and cover about 98% of the glaciated area.

Key statistics

total glaciated area: 1'162 km ²	Number of series:	104	5	0
total coverage WGI: 47 %	Average length [years]:	19	3	0
total coverage GLIMS: 98 %	Average number of observations:	10	4	0

Front Variation	Mass Balance	Thickness Change
MB	TC	

Present state

Nationally coordinated glacier monitoring, glacier monitoring activities by several research groups.

Detailed mass balance measurement programme at Brewster glacier.

Few additional short-term mass balance series. Additionally, comprehensive dataset on end-of-summer snowlines.

Front variations available since the 1980s, few historical records extending beyond 1900.

Only partial coverage in WGI, full coverage in GLIMS (inventory from 1978).

Future potential/needs

Continue and expand national monitoring programme.

Ensure continuation of long-term mass measurement programme.

Continue and extend mass balance network, aim for good coverage of different regions.

Continue front variations measurements and encourage the use of remotes sensing data for assessing glacier changes in length and volume.

Elaborate up-to-date inventory, digitize and make available earlier inventories.

Spatial distribution of series

Glaciers in New Zealand occur in the Southern Alps on the South Island. The history of glacier monitoring in New Zealand is rather young, as is the history of the country. The available observations are well distributed over the region, but are mostly short.

