

Precipitation Patterns Are Changing

ANNUAL AVERAGE TOTAL PRECIPITATION



Province-wide annual precipitation is projected to rise by 18% by the end of the century. The intensity of precipitation and freezing is rain is also projected to increase.

Newfoundland				Labrador			
	1971-2000 (mm)	2021-2050 (mm)	2071-2100 (mm)		1971-2000 (mm)	2021-2050 (mm)	2071-2100 (mm)
St. John's	1396	+5%	+9%	Cartwright	932	+8%	+20%
Gander	1087	+7%	+15%	Goose Bay	858	+10%	+25%
Corner Brook	1128	+9%	+18%	Nain	699	+10%	+24%
Port aux Basques	1360	+7%	+15%	Labrador City	832	+11%	+27%
St. Anthony	1015	+8%	+17%	L'Anse au Loup	1010	+9%	+20%

The average annual total precipitation is projected under a high emissions scenario (SSP5-8.5 ensemble 50th percentile) compared to the baseline period (1971-2000).

MORE RAINY DAYS, LESS SNOWY DAYS

Newfoundland				Labrador			
	1971-2000	2021-2050	2071-2100		1971-2000	2021-2050	2071-2100
St. John's	121 48	135 33	148 16	Cartwright	92 67	105 57	126 37
Gander	144 52	129 38	147 18	Goose Bay	91 58	102 51	121 36
Corner Brook	118 79	136 62	160 36	Nain	69 67	80 62	102 45
Port aux Basques	123 61	141 43	162 19	Labrador City	88 80	99 76	116 69
St. Anthony	93 67	106 54	129 31	L'Anse au Loup	98 74	115 60	140 35

¹The number of rain and snow days are projected under a high emissions scenario (SSP5-8.5 ensemble 50th percentile) compared to the baseline period (1971-2000).

POTENTIAL IMPACTS



Economic and safety concerns, and infrastructure failure due to increased inland and riverine flooding events.



Anticipated long-term reduction in plowing costs due to less snow and ice.



Infrastructure damage, transportation disruptions, and landscape alterations due to intense precipitation.



Soil erosion and vegetation damage due to heavy rainfall events.



Disruptions to snow-dependent transportation in Labrador impact winter recreation and lead to serious repercussions for Indigenous communities.



Risk of avalanches, permafrost warming, travel safety concerns, and negative impacts on culturally significant wildlife can be increased by rain on snow events.