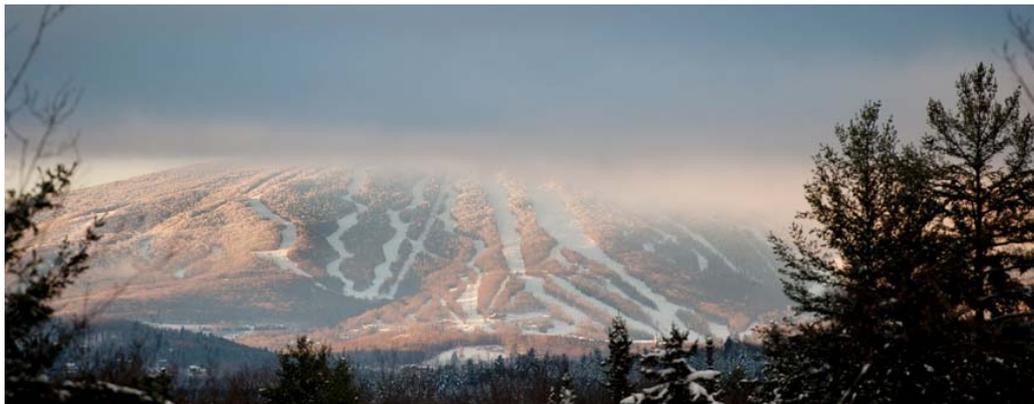


<b>Title of case study</b>	<b>Relocation to improve snow pack and lengthen ski season</b>
<b>Name of organization(s)</b>	<b>Intrawest</b>
<b>Business sector</b>	Tourism and Recreation
<b>Region(s) relevant to case study</b>	<input type="checkbox"/> All regions <input type="checkbox"/> Africa and the Arab States <input type="checkbox"/> Asia and the Pacific <input type="checkbox"/> Caribbean and Central America <input type="checkbox"/> Europe <input type="checkbox"/> Least Developed Countries <input checked="" type="checkbox"/> North America <input type="checkbox"/> Polar regions <input type="checkbox"/> Small Island Developing States <input type="checkbox"/> South America
<b>Country(s) relevant to case study</b>	Canada
<b>Adaptation sector(s) relevant to case study</b>	<input type="checkbox"/> Business <input type="checkbox"/> Education and training <input type="checkbox"/> Food security, agriculture, forestry and fisheries <input type="checkbox"/> Human health <input type="checkbox"/> Oceans and coastal areas <input type="checkbox"/> Science, assessment, monitoring and early warning <input type="checkbox"/> Terrestrial ecosystems <input checked="" type="checkbox"/> Tourism <input type="checkbox"/> Transport, infrastructure and human settlements <input type="checkbox"/> Water resources <input type="checkbox"/> Other (please specify):
<b>Adaptation activity</b>	<p>At existing ski areas, slope development adaptations include: slope contouring, landscaping, and the protection of glaciers. Contouring or smoothing ski slopes (i.e., grooming slopes in the summer season to remove rocks or shrub vegetation) reduce the snow depth required to operate and represent a cost saving strategy for snowmaking. Land contouring can also be used to capture snowmelt and replenish snowmaking reservoirs throughout the winter. Strategic planting or retention of tree cover can capture moving snow ('snow farming') and partially shade ski slopes, reducing snowmelt and snowmaking requirements. Protection of glaciers can be</p>

	<p>undertaken either by the installation of large sheets of white polyethylene on critical areas of glaciers to protect the ice from ultraviolet radiation during the summer (Switzerland and Austria), or by the use of snow fences and snowmaking to protect and even grow the glacier (Whistler, Canada).</p> <p>In addition to the modification of existing skiable terrain, the development of new skiable terrain in climatically advantaged locations is commonly cited as an adaptation to climate change. The development of north facing slopes, which retain snowpack longer, is one strategy. An example of this strategy is Intrawest’s planned expansion of the Mont Tremblant ski area in Quebec, Canada, to develop two new pedestrian ski villages on the north side of the mountain (Versant Nord).</p> <p>Expansion of ski areas into higher elevations, where snow cover is generally more reliable and a longer ski season is possible, appears to be one of the principal climate change adaptation strategies being considered by ski area operators in the European. Thirty-six ski areas in Austria applied for permits to expand their operations into higher elevations (climate change may be used as the justification, but may not always be the primary reason for wanting to expand operations).</p> <p>High elevation mountain environments are particularly sensitive to disturbance and opposition from the public and environmental groups may pose a significant constraint on this adaptation strategy in some locations.</p> <p>Adaptations in the timing of ski area openings may be required in some locations if climate change makes early season snowmaking uneconomic. Throughout much of North America and Europe the ski season prior to the Christmas-New Year holiday period represents a low proportion of annual skier visits. Under climate change, the increased costs of attempting to open long before this economically important holiday period may mean this early-season is no longer viable. Increasing the intensity of use at a ski area by raising lift capacity or limiting slope availability to concentrate snowmaking resources, is a strategy to reduce operating costs, but increased utilization levels will prove effective only if skier satisfaction can be maintained.</p>
<p><b>Cost-benefit</b></p>	<p>Intrawest’s planned expansion onto a north-facing slope is an adaptation strategy to ensure sufficient snow pack and skier satisfaction is maintained. As the ski industry relies heavily on snow precipitation, which is likely to be</p>

	significantly impacted by climate change, there is a strong need for ski companies to incorporate adaptation into their decision making processes and business operations.
<b>Case study source(s)</b>	<a href="#">Climate change adaptation in the ski industry (Daniel Scott and Geoff McBoyle)</a>
<p>CLICK FOR MORE INFO</p> 	



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