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Under Construction

Laura Hershey[1]

[1]Affiliation not available

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Under Construction

LAURA HERSHEY

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CORRESPONDENCE:
laura.hershey@meteoprotect.com

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It is said that the road to success is always under construction. But what if the construction itself must be delayed or come to a halt entirely? A construction company can try to schedule its work around favourable weather conditions, but there is only so much that can be done if Mother Nature is being disagreeable. Traditional risk management solutions such as severe weather management guidelines and liability insurance have been inadequate in insuring against the delays and increased costs associated with the effects of inclement weather on a job site. Fortunately, new industry solutions are now available to address the increasingly significant risks affecting the construction industry.

It is considered one of Canada's most enchanting places, where the mountains meet the sea. One might alternatively spot a moose, bald eagle or pilot whale while strolling the world-famous Cabot Trail coastline. The complex habitat of norther Cape Breton Island is diverse, its natural wonders and cultural treasures drawing tourists from near and far each summer. Of course, it would not be a true Canadian summer without seeing the other all-too familiar local summer highlight though: the ubiquitous roller, the screed, asphalt raker, or stone spreader.

For if there is one thing that Canada does extremely well, it is cramming a whole lot of construction into

a very limited season. In summer 2015, there are no fewer than ten important road construction projects getting underway in this one national park, including large bridge and highway projects. Parks Canada knows that visitors and businesses will be affected (and likely irritated) by the impacts of these works; they include a helpful FAQ on their website answering the query they are likely fed up of hearing by phone or in person: “Why is Parks Canada doing this construction work during peak tourism season?”

Indeed, this is a fairly widespread phenomenon, in no way limited to Atlantic Canada, whereby the weather is lovely, everyone hits the road on vacation, and then we all collectively rant at the road detours, ramp closures, and single available lanes.

Of course, not all construction projects can be scheduled around fair weather. The construction industry is in fact one of the most weather sensitive, with autumn/winter being its most difficult period. Hard winters can imply stoppages and delays, with excavation being impossible when temperatures fall below a certain freezing threshold, that being usually around -5 degrees Celsius. Frost, rain and snow comprise together the main weather risks for construction projects. The magnitude of these risks is not lost on the construction industry’s c-suite: 43% of construction companies made reference to the weather in their annual reports to explain the performance of the reporting entity, this being second only to the utilities industry.[1]“Demystifying climate effects”, co-authored by Meteo Protect and Kepler Chevreux, 26 November 2013, PDF

In fact, outside of winter excavation, weather risks are as many as the financial consequences. Bad weather can cause damage to equipment and materials (eg. heavy machinery can’t be left on dirt during heavy rainfall), injury to crew (eg. strong winds and lighting pose particular danger to cranes, wind turbines and other projects reaching high elevations), work delays and wasted payroll dollars, and destruction of work sites (eg. concrete can’t be poured on heavily saturated muddy ground, rainfall on wet concrete can cause divots). [2]“Managing Severe Weather Risks”, Jeff Johnson and Dan Buck, Construction Business Owner Magazine, November 2013 issue, http://www.constructionbusinessowner.com/strategy/risk-management/november-2013managin\ng-severe-weather-risks

Traditional risk management solutions to mitigate the effects of unfavourable weather by a construction company include putting in place a severe weather management plan detailing best practice guidelines for individual work sites, such as specifying what measures will be taken to reduce the extent of damage to the most common work activities affected by severe weather, scheduling work outside high risk periods to the maximum extent possible, amending technical specifications to better manage works during difficult periods, as well as reducing construction risk through appropriate design, and identifying and mitigating against severe weather that might impact the site.[3]“Severe Weather Management Plans”, Engineering Policy 146, January 2014, Department of Transport and Main Roads, Queensland Government, PDF

Traditional insurance solutions address weather events such as storm damage and other severe weather events including, for instance, general liability, excess liability, construction all risk, and workers’ compensation. However, the transfer of any such risk from one party to another under such policies has a cost, whether via contract deductibles or loss adjustments. In fact, with climate change aggravating naturally occurring climate variability, the frequency and intensity of weather anomalies is increasing and construction companies are experiencing significant weather-related financial effects, and demands on the construction industry are increasing as jurisdictions revise and update their building and construction codes to ensure that they address the impacts of climate change. These legislative requirements may include the introduction of a carbon price, and changes in the requirement of a building to be fit for its stated or intended purpose in the event of more frequent or extreme adverse weather.[4]“The impact of climate change on the risk allocation of construction projects”, Sefton Warner, September 2014, Norton Rose Fulbright, http://www.nortonrosefulbright.com/knowledge/publications/119912/the-impact-of-climate\n-change-on-

the-risk-allocation-of-construction-projects

In many cases, the effects of inclement weather on a construction site or building may not be covered by traditional insurance, as the contractual claims for relief being submitted may be rejected as owing to a “force majeure” (natural and unavoidable catastrophes that interrupt the expected course of events and restrict participants from fulfilling obligations). Thus, construction contracts and supply contracts may grant an extension of the completion date, but not provide monetary relief by way of damages resulting from delays. This is of little help, particularly when the costs of construction materials skyrocket after a force majeure event. Moreover, force majeure clauses are usually limited to natural disasters, rather than the more severe adverse weather conditions as climate change is associated with. Finally, compounding the problem with force majeure clauses, there is no common law doctrine for them.

Fortunately, innovative weather risk management solutions are now available to respond to the impact of climate change on the construction industry and to cover traditionally uninsurable risks such as project delays and additional wages where there is no damage to the insured assets. Meteo Protect offers index-based weather insurance to at-risk clients such as construction and mining companies, to protect them when weather conditions adversely impact their businesses or profits or generate additional costs. For instance, for days that a construction company is unable to work due to freezing temperatures, causing lost wages and production, the effect can be mitigated by a bespoke geo-targeted index which is triggered when the index exceeds a predefined value for the coverage period (measured in hours, days, seasons or years).

A significant advantage of index-based weather insurance over traditional insurance solutions is that a payment is triggered by defined, externally verified, weather variable, and not to an incurred loss. Thus, no field loss assessment or adjustment is required; payment is simple and automatic. Independent of client behaviour, index insurance has very low settlement cost, and is not subject to moral hazard or to adverse selection.

Moreover, for the construction industry, Meteo Protect created a pricing and underwriting platform to enable weather index insurance distribution and management for construction cooperatives and associations to offer directly to their members. Each construction company can log in and structure any index-based product, with the platform providing scenario analysis, real-time pricing, direct chat system, multi-user and custom access rights.

Because Meteo Protect has the largest team in Europe dedicated exclusively to weather risk management, controlling each step of the value chain from risk assessment to risk placement through to the hedging solution, it is economical and responsive. As Meteo Protect operates anywhere in the world and its solutions are underwritten by the largest insurers in the market, its solutions are accessible to any construction with a weather risk exposure, no matter its location.

References

1. ↑ “Demystifying climate effects”, co-authored by Meteo Protect and Kepler Chevreux, 26 November 2013, PDF
2. ↑ “Managing Severe Weather Risks”, Jeff Johnson and Dan Buck, Construction Business Owner Magazine, November 2013 issue, http://www.constructionbusinessowner.com/strategy/risk-management/november-2013managin\ng-severe-weather-risks
3. ↑ “Severe Weather Management Plans”, Engineering Policy 146, January 2014, Department of Transport and Main Roads, Queensland Government, PDF
4. ↑ “The impact of climate change on the risk allocation of construction projects”, Sefton Warner, September 2014, Norton Rose Fulbright, http://www.nortonrosefulbright.com/knowledge/publications/119912/the-impact-of-climate\n-change-on-the-risk-allocation-of-construction-projects