Built to last

Atlantic Canada's fishing and forestry companies look to environmental and economic sustainability to stay in the game for the long haul

BY KIM HART MACNEILL

Atlantic Canada was attractive to early European explorers because of its abundant timber stands and fish stocks, and these staple industries have been key to local economies ever since. In 2017, Atlantic Canada's balance of forestry trade (the value of exports minus imports) was $2.28 billion, according to Natural Resources Canada. The region's fishing and aquaculture industries are the country's largest, and produced $3.76 billion of fish in 2017, according to DFO.

While circumstances and innovation constantly change how these industries operate, local business owners know that to maintain their livelihoods they need to ensure they are economically and environmentally sustainable.

Anthony Cobb's father left fishing in the 1960s because he couldn't support his family. Trawling and the cod moratorium killed the local industry, and many like him left their small fishing communities.

In 2015, Cobb co-founded the social enterprise Fogo Island Fish. Today 60 fishers catch for the company, up from 33 in year one. Four times as many people work

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in the community fish plant, filleting and flash-freezing the catch. Each fish is caught by hand, one at a time, bled and iced at sea to preserve its quality. Unlike the gill net method popular before the moratorium, hand-lining results in zero by-catch so there's no waste.

"[Industrial fishing] has a business model that is largely organized with the assumption that there's an abundance of fish. The reality is we've got fish stocks that are in deep trouble, not just cod," says Cobb. "We need to remake the business model of industrial-scale fishing."

Fogo Island Fish puts a number of measures in place to protect the local cod stock. Fishing and processing happens only in the Fall, when cod are 20–25 per cent larger, which means the same landing weight with fewer fish taken from the sea.

Fishing by hand is difficult and dangerous work, but Fogo Island fishers earn double for their catch. Selling and shipping directly to chefs, cutting out distributors and fish mongers, means more money locally and fresher fish, for which chefs in Alberta and Ontario willingly pay a premium. Cobb won't divulge the exact price per pound, but says, "we probably have the most expensive cod in the world," and compares it to blue fin tuna, one of the world's most expensive fish.

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As Fogo Island looks to traditional methods to protect fish stocks and produce a premium product, Sustainable Blue, a land-based fish farm in Centre Burlington, Nova Scotia, looks to new technology.

Aquaculture is the fastest-growing food production activity in the world and a growing sector in Canada. Atlantic Canada is home to 539 operations, 57 per cent of all Canadian operations. There are two common methods: open farming, in which young fish are raised in sea cages in bodies of saltwater; and land-based. Both have downsides.

Both styles of farming require antibiotics to keep fish healthy until they reach maturity. Open pen farming results in 25 per cent loss of stock due to disease and injury. Land-based farming requires constant filtering of the water to remove waste. While most conventional fish farm treatment systems remove about 95 per cent of waste, five per cent is returned to the sea in a highly concentrated form.

Sustainable Blue's proprietary system was originally developed by Dr. Jeremy Lee (the company's president) for large-scale aquariums. But Kirk Haverstock, CEO, says that was never the end game. It was always Lee's ambition to use the technology for aquaculture.

"Building public aquariums all over the world gives us the opportunity to do all of the technology development work we need, on projects which are being paid for by the client," says Haverstock.

Haverstock sees declining wild fish stocks as an opportunity to fill the market with fish farmed using Sustainable Blue's method. It constantly filters all pollutants from the water to keep the fish in clean blue water. Healthy fish means lower mortalities (about two per cent) and no antibiotics. The biological waste stays on land and will eventually be converted into agricultural fertilizer.

Technology is also how Nova North Forest Owners Co-Op (based in Wentworth, N.S.) changed it operations to be more efficient and environmentally responsible. North Nova manages just over 75,000 acres for 300 lot owners across Cumberland, Colchester and Pictou counties. The co-op bridges the gap between owners, contractors and sawmills, and offers silvaculture and marketing services.

Watson says adhering to provincial regulations on cutting was always important to his members, but in the last five years the co-op moved toward being even more conscious of how what it does affects the land and forest.

Last December, the provincial government delivered its response to the Independent Review of Forestry Practices in Nova Scotia. The report recommends reducing clear cutting on Crown land from 65 per cent to 20–25 per cent, and described a "triad model" in which some areas are reserved for intensive commercial forestry, some are prohibited from commercial activity and others are marked for less intensive forestry.

Watson says the report reflects an approach Nova North has taken over the last five years. "We've realized that the world's resources are stretched and things are under stress. And we're trying to do our part," he says.

One game changer for the co-op is to utilize consumer cellphones for mapping. "It's a lot easier to shove in your shirt pocket, walk and collect data." Watson and his team draw directly on the map, which will in turn be emailed to the office and overlaid on aerial photos. The map can also be uploaded to harvesting machinery to help it navigate the stand without interfering with hawk habitats or streams.

Back in Newfoundland, Lorie Philpott says that environmental sustainability and economics have always gone hand-in-hand for her 50-year-old family business based in Summerford. Much like Cobb's father, Philpott's great-uncle Ralph left the fishing industry because he couldn't count on the income. He founded Cottle's Lumber and Wood Products.

The company started focused on lumber, but over time it diversified its product lines. "It's a product of our environment," says Robin Philpott, office manager, and the fourth generation to join the company. "We have a 250-kilometre haul one way from where our logs are harvested to where our processing operation is. When you have so much non-value-added activity, it becomes critical to squeeze as much value as you can from wood fibre."

In addition to supplying lumber, Cottle's produces decking, siding and panelling, and offers turn-key cottage build-outs. Lorie Philpott, Robin's mother and company general manager, says those products have helped Cottle's weather tough times. "The lumber market fluctuates fairly heavily at times, but as far as the value-added pricing goes, it stays rather stable and steady."

The company even sells waste product like knots in bags of kindling and sawdust compressed into wood pellets. In addition to being better for the environment, she says, it transforms what would have been a disposal cost into a new revenue stream.