



Carbon Offsets: A Lucrative Forest Product for Private and Community Forests



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Carbon Offsets

Carbon markets provide an opportunity for private forest owners, including community forests, to monetize the carbon stored in their forests. Sustainably managed forests sequester carbon and are widely recognized to be a key tool in the fight against climate change. Until recently there was no incentive for private forest owners to manage specifically for carbon nor a way to monetize forest carbon. Carbon markets are a new but proven way for landowners to monetize and sell carbon and incentivize good forest management on private lands. The voluntary desire or regulatory need for carbon emitters to reduce their emissions has created a demand for carbon offsets. Offsets are bought and sold on a per credit (tonne) basis from suppliers, like forest owners, who remove carbon from the atmosphere and agree to store it for the long-term. Carbon can be removed from the atmosphere in many ways to generate offsets, but the focus here are forest carbon offsets.

Carbon Markets

There are two types of carbon markets: the voluntary market and the compliance market. The voluntary market is driven by emitters who are voluntarily reducing their emissions. For example, when a business wants to become carbon neutral, they buy voluntary carbon offsets to achieve this goal. The value of these offsets currently ranges from \$4 to \$16 per tonne (2022). Forests in Southern Ontario, on average, generate one to three carbon offsets per year. The value is largely determined by how the offset is generated (carbon capture technology, sustainable agriculture, forest management, etc.). Offsets with a good story attached, such as those that result in the conservation of forests, sell for a higher value. Forest carbon is among the highest-value carbon in the voluntary market. Businesses will pay top dollar to say they have reduced emissions and conserved forests. Buyers and sellers in the voluntary market have some discretion about who they want to sell to, and buy from.

The compliance market is driven by emitters who need to reduce emissions to meet government regulations or want to reduce their carbon taxes. These offsets sell for a few dollars less than the carbon tax and price is generally insensitive to the source of the offsets. Offsets in the compliance market are commodity goods and are sold to whoever wants to purchase them.



Tim Trustham, Conservation Forester (center)
Quinte Conservation showcasing
carbon offset plots during an audit

Generating Offsets

The voluntary and compliance markets have different protocols, or rules, regarding how carbon offsets are generated from forests. Voluntary protocols, such as the American Carbon Registry (ACR), have been in use for many years and are less restrictive than compliance protocols. As of this writing (2022), a national compliance protocol for Canada is still under development by the Federal Government for release in 2023. Regardless of the protocol, a forest owner must first prove that their lands are sustainably managed. A third-party certification system, such as the Forest Stewardship Council® (FSC®), is the easiest and most accepted way to prove a forest is sustainably managed for the purposes of generating carbon offsets. The Eastern Ontario Model Forest (EOMF) holds a Group FSC Forest Management Certificate and offers FSC certification to private and community forests throughout Ontario.

The volume of carbon in the forest is determined using a rigorous forest inventory technique that measures all the above ground carbon in live and dead trees. Once these volumes have been calculated and certified as accurate, they can be sold in the carbon market. Sustainable harvesting can still occur on the lands but must remain below the average annual growth of the forest. Forest owners agree to keep the carbon sequestered in their forests for a term of 40 years for voluntary offsets and 100+ years for compliance offsets. These terms are legally binding and a default on the obligations, deliberate forest clearing for example, would result in a substantial monetary penalty. A holdback is used to insure against no-fault carbon emissions, such as those from wildfire.

Eastern Ontario Model Forest Carbon Offset Program

To help forests in Southern Ontario bring offsets to market, the Eastern Ontario Model Forest has partnered with Bluesource, a carbon offset service provider. Bluesource is responsible for inventorying the carbon and bringing it to market. The process of calculating carbon volumes in a forest and taking them to market is not trivial. It is expensive and volumes of carbon stored per acre of forest can vary greatly from forest to forest. There is an exceptional amount of rigor and complexity in the process.

Due to high initial costs and the need for economies of scale, only owners with 5,000 acres of contiguous or non-contiguous land are currently financially viable. Pooling lands from multiple owners to reach 5,000 acres creates other challenges. Communications, governance, and joint liability must be addressed when multiple landowners are involved. If one landowner defaults, the rest are still responsible for paying the penalty. Pooling land is possible, but only where there are very few landowners and there are legal safeguards in place.

For more information about carbon offsets for your forest, see www.eomf.on.ca/programs/carbon-offsets or contact Glen Prevost, OWA Program Coordinator at glen.prevost@ontariowoodlot.com.





Harvesting according to FSC® standards can increase carbon sequestration