

# Updating the FORREX report on carbon management in British Columbia's forests

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**Mike Greig and Ajit Krishnaswamy**

**F**ORREX has drafted a revision of its popular 2009 report, *Carbon Management in British Columbia's Forests: Opportunities and Challenges* (Greig and Bull 2009), as an article that will be featured in an upcoming issue of the *BC Journal of Ecosystems and Management*. This article provides an update on the province's approach to managing for greenhouse gas emissions, with a focus on the role that British Columbia's forests play. It includes

- a summary of legislative changes since 2008;
- a review of the evolving institutional and market rules needed for the further development of a carbon offset market, which would include forests;
- some recent advances in forest carbon management in the province; and
- important opportunities and challenges that lay ahead.

The article acknowledges that forest carbon management policy and practices will continue to evolve since forest carbon is now a recognized forest value, both at the carbon offset project level and at the sustainable forest management landscape level. It further states that although British Columbia's vast forests represent a significant opportunity to manage greenhouse gas emissions and to mitigate climate change, more work is required to realize the full potential of managing the province's forests for forest carbon.

Nevertheless, forest-based carbon offset projects continue to provide significant opportunity and challenges. A recent report delivered by the Climate Action Secretariat (2010) describes British Columbia's forests as the province's "natural advantage" to help meet aggressive new greenhouse gas emissions reduction targets.

The article outlines the following key opportunities for managing forest carbon in British Columbia.

- **Pacific Carbon Trust forest-based projects** – Carbon offset projects for enhanced removals of greenhouse gas emissions, including afforestation, reforestation, improved forest management, and conservation.
- **Pacific Carbon Trust fuel-switching projects** – Carbon offset projects for fuel switching, moving from fossil fuels in industrial operations to forest-based biomass.
- **Wood products usage** – Promoting the use of wood products to reduce the province's overall greenhouse gas emissions footprint, both in building products and biomass fuels.
- **Harvested wood products** – Accounting as a benefit in carbon offset projects as these products store carbon and have a long life.
- **Co-benefits** – Accounting for the co-benefits of carbon offset projects, as these projects tend to generate intangible values (e.g., ecosystem services) in addition to tangible values (e.g., carbon storage). Accounting for intangible values may overcome financial obstacles.
- **Joint benefits** – First Nations and the provincial government are working together in the hope of producing mutual benefits from different management actions to increase carbon sequestration and reduce greenhouse gas emissions.
- **International markets** – British Columbia is in the position to export surplus carbon credits, which are high in quality, can demonstrate ecological benefits, can be supported by First Nations, and can be integrated with existing economic activity, such as the continued harvesting of trees to produce wood products.

The article explores some of the following challenges, which continue to influence forest carbon management in British Columbia.

- **Lack of fungibility**<sup>1</sup> – Some economists are concerned that the carbon market currently being developed by the province and which must be aligned to British Columbia’s legislative and regulatory requirements, may not be fungible with the international marketplace where many project developers will have to sell their excess credits. If the carbon trade is not fully harmonized, British Columbia will find it challenging to trade carbon regionally and internationally.
- **Financial challenges** – Proponents of commercial carbon offset projects indicate that projects are financially difficult to undertake given high upfront costs and the long payback periods. Yet cost-effectiveness is critical when implementing a project to reduce greenhouse gas emissions and increase carbon stocks.
- **Institutional challenges** – At present, the emission trading platform, registries, and banking procedures are not in place to serialize projects, to establish price, to increase efficiencies, and to facilitate over-the-counter trading.
- **Inadequate modelling** – Modellers point out that, despite good modelling capability, it is difficult to assess the carbon budget and (or) flux of forest soils and long-lived harvested wood products. Uncertainty is associated with assessing the impact of climate change adaptation on carbon budgets. To address issues such as leakage, the further development of modelling tools in areas such as forest products trade, regional and project supply curves, and carbon flow along the supply chain is also required. Finally, all modelling efforts will require a sustained effort by key agencies to ensure integrated and consistent forest inventory data, forest products trade data, and production/consumption data. A need also exists for user-friendly analysis tools and decision-support software tools to help forest managers assess carbon management options.
- **Need for appropriate forest practices** – Research is being carried out by the Ministry of Forests, Lands, and Natural Resource Operations to help identify forest practices that provide the greatest returns.

However, a need still exists for user-friendly decision-support guides and training to help provincial forest managers identify appropriate practices to implement. Developing Forest Investment Tables would help to rank silviculture investments that are focussed on increasing greenhouse gas emissions removals and reducing greenhouse gas emissions.

Despite these challenges, the article emphasizes that significant advances have been made in provincial forest carbon management and these continue to rapidly evolve. British Columbia is perhaps the most active province in Canada as it seeks to meet the requirements of its new suite of greenhouse gas legislation, regulations, and policies that influence the management of forest carbon.

For more information about this publication, please contact **Ajit Krishnaswamy** ([ajit.krishnaswamy@forrex.org](mailto:ajit.krishnaswamy@forrex.org)).

## References

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## Contact Information

**Mike Greig** is a principal at Enfor Consultants Ltd., 18–3721 Delbrook Avenue, North Vancouver, BC V7N 3Z4. Email: [mgreig@enfor.com](mailto:mgreig@enfor.com)

**Ajit Krishnaswamy** is a Socio-economics Extension Specialist for FORREX, c/o School of Resource and Environmental Management, Simon Fraser University, Burnaby, BC V5A 1S6. Email: [Ajit.Krishnaswamy@forrex.org](mailto:Ajit.Krishnaswamy@forrex.org)

<sup>1</sup> Fungibility describes commodities that can be traded or substituted for an equal amount of a like commodity.

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