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A Compiled List of Technical and Research Publications Involving the Carbon Budget Models (CBM–CFS3 and GCBM) developed by the Canadian Forest Service (2026)

The Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3) and the Generic Carbon Budget Model (GCBM) were developed by Natural Resources Canada's Canadian Forest Service to meet the operational-scale, forest carbon accounting needs of forest managers and analysts across Canada. Both models are stand and landscape-level modelling framework that can be used to simulate the dynamics of all forest carbon stocks required under the United Nations Framework Convention on Climate Change (UNFCCC). They are compliant with the carbon estimation methods outlined in the 2003 Intergovernmental Panel on Climate Change (IPCC) Good Practice Guidance for Land Use, Land-Use Change and Forestry, and 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

This document presents a list of technical and research publications involving both models. Publications are listed by the country, economic/political union where the document was published, or where the model was applied. This list of publications as of January 2026 is extensive, but not complete. Researchers are encouraged to forward citations for other research publications that involve the application of either model to Stephen Kull, Outreach Forester, Carbon at the Canadian Forest Service.

CANADA

Amichev, B.; Bentham, M.J.; Kurz, W.A.; Laroque, C.P.; Kulshreshtha, S.; Piwowar, J. M.; Van Rees, K.C.J. 2016. Carbon sequestration by white spruce shelterbelts in Saskatchewan, Canada: 3PG and CBM-CFS3 model simulations. Ecological Modelling, 325: 35–46*

Amichev, B.Y.; Bentham, M.J.; Kulshreshtha, S.N.; Laroque, C.P.; Piwowar, J.M.; Van Rees, K.C.J. 2016. Carbon Sequestration and growth of six common tree and shrub shelterbelts in Saskatchewan, Canada. Canadian Journal of Soil Science, 97(3).*

Amichev, B.Y.; Kurz, W.A.; Smyth, C.E.; Van Rees, K.C.J. 2011. The carbon implications of large-scale afforestation of agriculturally marginal land with short-rotation willow in Saskatchewan. GCB Bioenergy, 4(1): 70–87.*

Asante, P. 2011. Carbon Dynamics and Optimal Forest Rotation. FORMATH, 10: 235–262.*

Asante, P.; Armstrong, G. 2016. Carbon sequestration and the optimal forest harvest decision under alternative baseline policies. Can. J. For. Res., 46(5).*

Banfield, G.E.; Kurz, W.A. 2005. Operational-scale forest carbon accounting. Popular Summary-Proceedings, Forests and Natural Resources in the 22nd Century: Science Forum, August 31–September 1, 2005, Kamloops, BC. BC Journal of Ecosystems and Management, 6(2): 106–109.*

Bernier, P.Y.; Guindon, L.; Kurz, W.A.; Stinson, G. 2010. Reconstructing and modelling 71 years of forest growth in a Canadian boreal landscape: a test of the CBM-CFS3 carbon accounting model. Can.J. For. Res., 40: 109–118.*

Boisvenue, C.; Bergeron, Y.; Bernier, P.; Peng, C. 2012. Simulations show potential for reduced emissions and carbon stocks increase in boreal forests under ecosystem management. Carbon Management, 3(6):553–568.*

Boisvenue, C.; Paradis, G.; Eddy, I.M.S.; McIntire, E.J.B.; Chubaty, A.M. 2022. Managing forest carbon and landscape capacities. Environ. Res. Lett., 17(11): 114013.*

Boisvenue, C.; Smiley, B.P.; White, J.C.; Kurz, W.A.; Wulder, M.A. 2016. Improving carbon monitoring and reporting in forests using spatially-explicit information. Carbon Balance and Management, 11(23).*

Bona, K.A.; Fyles, J.W.; Shaw, C.; Kurz, W.A. 2013. Are mosses required to accurately predict upland black spruce forest soil carbon in national-scale forest C accounting models? Ecosystems, 16(6): 1071–1086.*

Bona, K.A.; Shaw, C.H.; Fyles, J.W.; Kurz, W.A. 2016. Modelling moss-derived carbon in upland black spruce forests. Can. J. For. Res., 46(4):520–534.*

Bona, K.A.; Shaw, C.; Thompson, D.K.; Hararuk, O.; Webster, K.; Zhang, G.; Voicu, M.; Kurz, W.A. 2020. The Canadian model for peatlands (CaMP): A peatland carbon model for national greenhouse gas reporting. Ecological Modelling, 431, 109164.†

* CBM-CFS3-related publication
† GCBM-related publication

Canada

Bona, K.A.; Webster, K.L.; Thompson, D.K.; Hararuk, O.; Zhang, G.; Kurz, W.A. 2024. Using the Canadian Model for Peatlands (CaMP) to examine greenhouse gas emissions and carbon sink strength in Canada's boreal and temperate peatlands. Ecological Modelling, 490, 110633.†

Botroh, A.-M.; Paré, D.; Cavard, X.; Fenton, N.J.; Bona, K.A.; Bergeron, Y. 2025. Forest type drives the response of boreal forested peatlands to wildfire: a simulation study. Can. J. For. Res., 55: 1–33.*

Boucher, J.-F.; Tremblay, P.; Gaboury, S.; Villeneuve, C. 2012. Can boreal afforestation help offset incompressible GHG emissions from Canadian industries? Process Safety and Environmental Protection, 90(6): 459–466.*

Cameron, E.K.; Shaw, C.H.; Bayne, E.M.; Kull, S.J. 2015. Modelling interacting effects of invasive earthworms and wildfire on forest floor carbon storage in the boreal forest. Soil Biology and Biochemistry, 88: 189–196.*

Carle, M.-A.; D'Amours, S.; Azouzi, R.; Rönnqvist, M. 2021. A Strategic Forest Management Model for Optimizing Timber Yield and Carbon Sequestration. Forest Science, 67(2): 205–218.*

Chen, B.; Arain, M.A.; Chen, J.M.; Croft, H.; Grant, R.F.; Kurz, W.A.; Bernier, P.; Guindon, L.; Price, D.; Wang, Z. 2016. Evaluating the impacts of climate variability and cutting and insect defoliation on the historical carbon dynamics of a boreal black spruce forest landscape in eastern Canada. Ecological Modelling, 321: 98–109.*

Chen, Y.; Kershaw, J.A.; Hsu, Y.-H.; Yang, T.-R. 2020. Carbon estimation using sampling to correct LiDAR-assisted enhanced forest inventory estimates. The Forestry Chronicle, 96(1): 9–19.

DeBiasio, J.; Robert, L.-E.; Smyth, C.; Laganière, J. 2025. Comparative analysis of two GHG mitigation models quantifying forest bioenergy emissions. Natural Resources Canada, Canadian Forest Service, 22 pp.†

de Groot, W.; Landry, R.; Kurz, W.A.; Anderson, K.R.; Englefield, P.; Fraser, R.H.; Hall. R.J.; Banfield, E.; Raymond, D.A.; Decker, V.; Lynham, T.J.; Pritchard, J.M. 2007. Estimating direct carbon emissions from Canadian wildland fires. International Journal of Wildland Fire, 16(5): 593–606.*

Dessureault, P-L.; Boucher, J-F.; Tremblay, P.; Bouchard, S.; Villeneuve, C. 2015. Uncovering the minor contribution of land-cover change in upland forests to the net carbon footprint of a boreal hydroelectric reservoir. Journal of Environmental Quality, 44(4): 1111–1118.*

Drever, C.R.; Cook-Patton, S.C.; Akhter, F.; Badiou, P.H.; Chmura, G.L.; Davidson, S.J.; Desjardins, R.L.; Dyk, A.; Fargione, J.E.; Fellows, M.; Filewod, B.; Hessing-Lewis, M.; Jayasundara, S.; Keeton, W.S.; Kroeger, T.; Lark, T.J.; Le, E.; Leavitt, S.M.; LeClerc, M.-E.; Lemprière, T.C.; Metsaranta, J.M.; McConkey, B.; Neilson, E.; St-Laurent, G.P.; Puric-Mladenovic, D.; Rodrigue, S.; Soolanayakanahally, R.Y.; Spawn, S.A.; Strack, M.; Smyth, C.; Thevathasan, N.; Voicu, M.; Williams, C.A.; Woodbury, P.B.; Worth, D.E.; Xu, Z.; Yeo, S.; Kurz, W.A. 2021. r, C.R.; Cook-Patton, S.C.; Akhter, F.; Badiou, P.H.; Kurz, W.A. 2021. Natural climate solutions for Canada. Science Advances, 7(23).†

Dsouza, K.B.; Ofosu, E.; Boudreault, R.; Moreno-Cruz, J.; Leonenko, Y. 2025. Substantial carbon removal capacity of Taiga reforestation and afforestation at Canada's boreal edge. Commun. Earth Environ., 6(893).†

Dufour, B.; Boucher, J.-F.; Tremblay, P.; Mailly, D.; Lord, D. 2016. Black-spruce-lichen woodlands growth and carbon drawdown potentials as revealed by mature stands. Boreal Env. Res., 21: 71–86.*

Dymond, C.C.; Beukema, S.; Nitschke, C.R.; Coates, K.D.; Scheller, R.M. 2016. Carbon sequestration in managed temperate coniferous forests under climate change. Biogeosciences, 13(6): 1933–1947.*

Dymond, C.C.; Neilson, E.T.; Stinson, G.; Porter, K.B.; MacLean, D.A.; Gray, D.R.; Campagna, M.; Kurz, W.A. 2010. Future Spruce Budworm Outbreak May Create a Carbon Source in Eastern Canadian Forests. Ecosystems, 13(6): 917–931.*

Dymond, C.C.; Titus, B.D.; Stinson, G.; Kurz, W.A. 2010. Future quantities and spatial distribution of harvesting residue and dead wood from natural disturbances in Canada. Forest Ecology and Management 260(2): 181–192.*

Dymond, C.C.; Venter, M.; Lilles, E.; De Assis Barros, L.; Farnell, I.; Hirsch-Pearson, K.; Ramírez-Delgado, J.P.; Venter, O. 2025. Reducing logging intensity in north temperate rainforests for climate and economic benefits. Forest Ecology and Management, 597, 123163.*

Elgie, S.; McCarney, G.R.; Adamowicz, W.L. 2011. Assessing the implications of a carbon market for boreal forest management. For. Chron., 87(3): 367–381.*

Ferster, C.J.; Trofymow, J.A.; Coops, N.C.; Chen, B.; Black T.A. 2015. Comparison of carbon stock changes and cumulative carbon fluxes from inventory ground plots, eddy-covariance flux-towers and model estimates in an age sequence of coastal Douglas-fir stands in British Columbia. Forest Ecosystems, 2(13).*

Foster, D.E.; Duinker, P.N.; Jamieson, R.C.; Keys, K.; Steenberg, J.W.N. 2024. Where does the carbon go? Long-term effects of forest management on the carbon budget of a temperate-forest water-supply watershed. Journal of Environmental Management, 352, 120007.*

Foster, K.T.; Sun, W.; Merder, J.; Hararuk, O.; Kurz, W.A.; Malhotra, A.; Metsaranta, J.; Nesdoly, A.; Sinha, E.; Bond-Lamberty, B.; Huntzinger, D.; Natali, S.M.; Schwalm, C.; Michalak, A.M. 2025. Permafrost, Peatland, and Cropland Regions Are Key to Reconciling North American Carbon Sink Estimates. Global Biogeochemical Cycles, 39(6), e2024GB008460.*

Fradette, O.; Marty, C.; Faubert, P.; Dessureault, P.-L.; Paré, M.; Bouchard, S.; Villeneuve, C. 2021. Additional carbon sequestration potential of abandoned agricultural land afforestation in the boreal zone: A modelling approach. Forest Ecology and Management, 499, 119565.*

Giasson, L.-A.; Thiffault, E.; Lebel, L.; Carle, J.-F. 2023. Carbon balance of forest management and wood production in the boreal forest of Quebec (Canada). Front. For. Glob. Change, 6,1242218.†

Giles-Hansen, K.; Wei, X. 2022. Cumulative disturbance converts regional forests into a substantial carbon source. Environ. Res. Lett., 17, 044049.*

Giles-Hansen, K.; Wei, X.; Hou, Y. 2021. Dramatic increase in water use efficiency with cumulative forest disturbance at the large forested watershed scale. Carbon Balance and Management, 16(6): 1–15.*

Griess, V.C.; Man, C.D.; Leclerc, M.-E.; Tansey, J.; Bull, G.Q. 2019. Carbon stocks and timber harvest. Alternative policy approaches for the Great Bear rainforest and their consequences. Forest Policy and Economics, 103: 147–156.*

* CBM-CFS3-related publication
† GCBM-related publication

Hagemann, U.; Moroni, M.T.; Shaw, C.H.; Kurz, W.A.; Makeschin, F. 2010. Comparing measured and modelled forest carbon stocks in high-boreal forests of harvest and natural-disturbance origin in Labrador, Canada. Ecological Modelling, 221(5): 825–839.*

Hararuk, O.; Shaw. C; Kurz, W.A. 2017. Constraining the organic matter decay parameters in the CBM-CFS3 using Canadian National Forest Inventory data and a Bayesian inversion technique. Ecological Modelling, 364: 1–12.*

Head, M.; Bernier, P.; Levasseur, A.; Beauregard, R.; Margni, M. 2019. Forestry carbon budget models to improve biogenic carbon accounting in life cycle assessment. Journal of Cleaner Production, 213: 289–299.*

Heffner, J.; Steenberg, J.; Leblon, B. 2021. Comparison between Empirical Models and the CBM-CFS3 Carbon Budget Model to Predict Carbon Stocks and Yields in Nova Scotia Forests. Forests, 12(9): 1235.*

Hennigar, C.R.; MacLean, D.A.; Amos-Binks, L.J. 2008. A novel approach to optimize management strategies for carbon stored in both forests and wood products. Forest ecology and Management, 256(4): 786–797.*

Hilger, A.B.; Shaw, C.H.; Metsaranta, J.M.; Kurz, W.A. 2012. Estimation of snag carbon transfer rates by ecozone and lead species for forests in Canada. Ecological Applications 22(8): 2078–2090.*

Hodgson, N. 2022. Mistik Management Ltd. Annual Certification Report 2020/21 Operating Year for the Mistik Management Ltd. and L&M Wood Products (2018) LP Forest Management Agreement Areas. Mistik Management Ltd., Meadow Lake, SK.*

Hoffman, D.R.; Shaw, C.H.; Kull, S.J.; Voicu, M.F.; McNalty, C. 2019. Forest floor recovery index: Boreal Mixedwood field guide. Natural Resources Canada, Canadian Forest Service, Northern Forestry Centre, Edmonton, Alberta.*

Hope. E.S.; Filewod, B.; McKenney, D.W.; Lemprière, T.C. 2021. A financial analysis of four carbon offset accounting protocols for a representative afforestation project (southern Ontario, Canada). Can. J. For. Res., 51(7).*

Ituen, I.; Hu, B. 2024. Assessing the Impact of Land Conversion on Carbon Stocks and GHG Emissions. Land, 13(8): 1291.*

Ituen, I.; Hu, B. 2021. Estimating carbon and greenhouse gas emissions in remote regions of Canada. The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XLIII-B3-2021, XXIV ISPRS Congress: 575–580.*

J.D. Irving. 2021. Carbon Footprint of the Irving Forest Supply Chain: PAS2060 Declaration of Carbon Neutrality 2021 Qualifying Explanatory Statement. J.D. Irving, Saint John, N.B.*

J.D. Irving, Limited. 2024. Carbon Footprint of the Irving Forest Supply Chain: PAS2060 Declaration of Carbon Neutrality 2023 Qualifying Explanatory Statement. J.D. Irving, Limited, Saint John, N.B.*

Kelley, J.; Trofymow, J.A.; Metsaranta, J.M.; Filipescu, C.N.; Bone, C. 2021. Use of Multi-Temporal LiDAR to Quantify Fertilization Effects on Stand Volume and Biomass in Late-Rotation Coastal Douglas-Fir Forests. Forests, 12(5): 517.*

Kouchaki-Penchah, H.; Bahn, O.; Vaillancourt, K.; Moreau, L.; Thiffault, E.; Levasseur, A. 2023. Impact of Biogenic Carbon Neutrality Assumption for Achieving a Net-Zero Emission Target: Insights from a Techno-Economic Analysis. Environ. Sci. Technol., 57(29): 10615–10628.*

Kull, S.J.; Morken, S.; Smyth, C.E.; Fellows, M. 2019. Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3): Archive Index Database Table and Parameter Descriptions. Natural Resources Canada, Canadian Forest Service, Northern Forestry Centre, Edmonton, Alberta.*

Kull, S.J.; Morken, S.; Smyth, C.E.; Fellows, M. 2019. Modelo de balance de carbono del sector forestal canadiense (MBC-SFC3): Descripciones de tablas y parámetros de la Base de datos de índice de archivo. Natural Resources Canada, Canadian Forest Service, Northern Forestry Centre, Edmonton, Alberta. [in Spanish]*

Kull, S.J.; Rampley, G.J.; Morken, S.; Metsaranta, J.; Neilson, E.T.; Kurz, W.A. 2019. Modelo de balance de carbono del sector forestal canadiense (MBC-SFC3) a escala operativa, versión 1.2: guía del usario. Natural Resources Canada, Canadian Forest Service, Northern Forestry Centre, Edmonton, Alberta. [in Spanish]*

Kull, S.J.; Rampley, G.J.; Morken, S.; Metsaranta, J.; Neilson, E.T.; Kurz, W.A. 2024. Operational-scale Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3) version 1.2: user's guide. Natural Resources Canada, Canadian Forest Service, Northern Forestry Centre, Edmonton, Alberta.*

Kull, S.J.; Rampley, G.J.; Morken, S.; Metsaranta, J.; Neilson, E.T.; Kurz, W.A. 2019. Operational-scale Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3) version 1.2: user's guide. Natural Resources Canada, Canadian Forest Service, Northern Forestry Centre, Edmonton, Alberta.*

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Kurz, W.A. 2011. Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3). Experiences in implementing a Tier 3 approach, in H.S. Eggleston, N. Srivastava, K. Tanabe, J. Baasansuren, and M. Fukuda, editors, pages 39–47. IPCC 2011, Use of Models and Facility-Level Data in Greenhouse Gas Inventories, Proceedings: Report of IPCC Expert Meeting on Use of Models and Measurements in Greenhouse Gas Inventories. August 9-11, 2010, Sydney, Australia. Institute for Global Environmental Strategies (IGES), Hayama, Japan*

Kurz, W.A.; Apps, M.J. 2006. Developing Canada's National Forest Carbon Monitoring, Accounting and Reporting System to meet the reporting requirements of the Kyoto Protocol. Mitigation and Adaptation Strategies for Global Change, 11: 33–43.*

Kurz, W.A.; Apps, M.J.; Banfield, G.E.; Stinson, G. 2002. Forest carbon accounting at the operational scale. The Forestry Chronicle 78(5): 672–679.*

Kurz, W.A.; Dymond, C.C.; Stinson, G.; Rampley, G.J.; Neilson, E.T.; Carroll, A.L.; Ebata, T.; Safranyik, L. 2008. Mountain pine beetle and forest carbon feedback to climate change. (Includes Supplementary Information). Nature, 452: 987–990.*

* CBM-CFS3-related publication
† GCBM-related publication

Kurz, W.A.; Dymond, C.C.; White, T.M.; Stinson, G.; Shaw, C.H.; Rampley, G.J.; Smyth, C.; Simpson, B.N.; Neilson, E.T.; Trofymow, J.A.; Metsaranta, J.; Apps, M.J. 2009. CBM-CFS3: A model of carbon-dynamics in forestry and land-use change implementing IPCC standards. Ecological Modelling, 220(4): 480–504.*

Kurz, W.A.; Hayne, S.; Fellows, M.; MacDonald, J.D.; Metsaranta, J.M.; Hafer, M.; Blain, D. 2018. Quantifying the impacts of human activities on reported greenhouse gas emissions and removals in Canada's managed forest: conceptual framework and implementation. Can. J. For. Res., 48(10): 1227–1240.*

Kurz, W.A.; Hudson, B.; Neilson, E.T.; Fellows, M.; Hafer, M.; MacDonald, J.D. 2024. Revised historic harvest data improve estimates of the impacts of human activities on reported greenhouse gas emissions and removals in Canada's managed forest. Can. J. For. Res., 54(11): 1–14.*

Kurz, W.A.; Stinson, G.; Rampley, G.J. 2007. Could increased boreal forest ecosystem productivity offset carbon losses from increased disturbances? Philosophical Transactions of the Royal Society B, 363(1501): 2259–2268.*

Kurz, W.A.; Stinson, G.; Rampley, G.J.; Dymond, C.C.; Neilson, E.T. 2008. Risk of natural disturbances makes future contribution of Canada's forests to the global carbon cycle highly uncertain. Proceedings of the National Academy of Sciences (USA), 105(5): 1551–1555.*

Lamers, P.; Junginger, M.; Dymond, C.C.; Faaij, A. 2012. Damaged forests provide an opportunity to mitigate climate change. GCB Bioenergy, 6 (1): 44–60.*

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Luckai, N.; Larocque, G.R.; Archambault, L.; Paré, D.; Boutin, R.; Groot, A. 2012. Using the carbon budget model of the Canadian forest sector (CBM-CFS3) to examine the impact of harvest and fire on carbon dynamics in selected forest types of the Canadian boreal shield. The Forestry Chronicle, 88: 426–438.*

Magnus, G.K.; Celanowicz, E.; Voicu, M.; Hafer, M.; Metsaranta, J.M.; Dyk, A.; Kurz, W.A. 2021. Growing our future: Assessing the outcome of afforestation programs in Ontario, Canada. The Forestry Chronicle, 97(2): 179–190.†

Malcolm, J.R.; Holtsmark, B.; Piascik, P.W. 2020. Forest harvesting and the carbon debt in boreal east-central Canada. Climatic Change, 161, 433–449.*

Man, C.D.; Lyons, K.C.; Nelson, J.D.; Bull, G.Q. 2015. Cost to produce carbon credits by reducing the harvest level in British Columbia, Canada. Forest Policy and Economics, 52: 9–17.*

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Ménard, I.; Thiffault, E.; Boulanger, Y.; Boucher, J.-F. 2022. Multi-model approach to integrate climate change impact on carbon sequestration potential of afforestation scenarios in Quebec, Canada. Ecological Modelling, 473, 110144.*

Ménard, I.; Thiffault, E.; Kurz, W.A.; Boucher, J.-F. 2023. Carbon sequestration and emission mitigation potential of afforestation and reforestation of unproductive territories. New Forests, 54: 1013–1035.*

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Metsaranta, J.M. 2019. Long-term tree-ring derived carbon dynamics of an experimental plantation in relation to species and density in Northwestern Ontario, Canada. Forest Ecol. and Management, 441: 229–241.*

Metsaranta, J.M.; Beauchemin, S.; Langley, S.; Tisch, B.; Dale, P. 2018. Assessing the long-term ecosystem productivity benefits and potential impacts of forests re-established on a mine tailings site. Forests, 9(11), 707, 1–23.*

Metsaranta, J.M.; Dymond, C.C.; Kurz, W.A.; Spittlehouse, D.L. 2011. Uncertainty of 21st century growing stocks and GHG balance of forests in British Columbia, Canada resulting from potential climate change impacts on ecosystem processes. Forest Ecology and Management 262(5): 827–837.*

Metsaranta, J.M.; Hudson, B.; Smyth, C.; Fellows, M.; Kurz, W.A. 2023. Future fire risk and the greenhouse gas mitigation potential of forest rehabilitation in British Columbia, Canada. Forest Ecology and Management, 529, 120729.†

Metsaranta, J.M.; Kurz, W.A. 2012. Inter-annual variability of ecosystem production in boreal jack pine forests (1975–2004) estimated from tree-ring data using CBM-CFS3. Ecological Modelling, 224(1): 111–123.*

Metsaranta, J.M.; Kurz, W.A.; Neilson, E.T.; Stinson, G. 2010. Implications of future disturbance regimes on the carbon balance of Canada's managed forest (2010–2100). Tellus B 62B(5): 719–728.*

Metsaranta, J.M.; Mamet, S.D.; Maillet, J.; Barr, A.G. 2021. Comparison of tree-ring and eddy-covariance derived annual ecosystem production estimates for jack pine and trembling aspen forests in Saskatchewan, Canada. Agriculture and Forest Meteorology, 307: 108469.*

Metsaranta, J.M.; Shaw, C.; Kurz, W.A.; Boisvenue, C.; Morken, S. 2017. Uncertainty of inventory-based estimates of the carbon dynamics of Canada's managed forest (1990–2014). Can. Journal of For. Res., 47(8): 1082–1094.*

Metsaranta, J.M.; Smyth, C.E.; Kurz, W.A. 2017. Canada, in Chapter 8 in Barreiro, S.; Schelhaas, M.-J.; McRoberts, R.E.; Kändler, G.(eds.) Forest Inventory-based Projection Systems for Wood and Biomass Availability, Managing Forest Ecosystems 29, Springer.*

Metsaranta, J.M.; Trofymow, J.A.; Black, T.A.; Jassal, R.S. 2018. Long-term time series of annual ecosystem production (1985–2010) derived from tree rings in Douglas-fir stands on Vancouver Island, Canada using a hybrid biometric-modelling approach. Forest Ecology and Management 429: 57–68.*

* CBM-CFS3-related publication
† GCBM-related publication

Moreau, L.; Thiffault, E.; Kurz, W.A.; Beauregard, R. 2023. Under what circumstances can the forest sector contribute to 2050 climate change mitigation targets? A study from forest ecosystems to landfill methane emissions for the province of Quebec, Canada. GCB Bioenergy, 15(9): 1119–1139.*

Morken, S.; Fellows, M.; Smyth, C. 2022. Generic Carbon Budget Model Spatial Inventory Rollback Tool. Nat. Resour. Can., Can. For. Serv., Pacific Forestry Centre, Information Report BC-X-457, Victoria, BC.†

Moroni, M.T.; Shaw, C.H.; Kurz, W.A.; Rampley, G.J. 2010. Forest carbon stocks in Newfoundland boreal forests of harvest and natural disturbance origin II: model evaluation. Can. J. For. Res., 40: 2146–2163.*

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Morton, C.; Beukema, S.; Poulson, F.; Trenholm, R.; Tekatch, A.; Sutherland, I. 2025. The Economic Value of Old-growth Forests in BC: Analysis of Old-growth Management Scenarios in Two Timber Supply Areas. ESSA Technologies Ltd., pp. 20.*

Natural Resources Canada. 2024. How Does Canada Report Greenhouse Gas Emissions From Wildfire? Natural Resources Canada, Canadian Forest Service, Science-Policy Notes (CFS), 3.*

Neilson, E.T.; McLean, D.A.; Meng, F.-R.; Arp, P.A. 2007. Spatial distribution of carbon in natural and managed stands in an industrial forest in New Brunswick, Canada. Forest Ecology and Management, 253(1–3): 148–160.*

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Ofosu, E.; Dsouza, K.B.; Chukwuemeka Amaogu, D.; Pigeon, J.; Boudreault, R.; Moreno-Cruz, J.; Maghoul, P.; Leonenko, Y. 2025. Climate benefits of afforestation and reforestation with varying species mixtures and densities in the north-western boreal lands. Environ. Res. Lett., 20(12), 124026.*

PEI Ministry of Environment, Energy and Climate Action. 2024. State of the Forest Report 2020. Prince Edward Island (PEI) Ministry of Environment, Energy and Climate Action. Charlottetown, PEI.*

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