

FORESTRY WASTE IN BRITISH COLUMBIA - OVERCOMING BAD HABITS AND PERVERSE LIFE CYCLE ACCOUNTING

Roland Clift, University of British Columbia, Canada *and* University of Surrey, UK
r.clift@surrey.ac.uk

Haoqi Wang, University of British Columbia, Canada *and* Hangzhou Dianzi University, China
Xiaotao Bi, University of British Columbia, Vancouver, Canada.

Key words: Forestry waste; Pareto optimality; GHG mitigation; Fuel pellets; Life cycle accounting

The western Canadian province of British Columbia (BC) is renowned for its extensive forests and forestry sector. For a number of historical reasons, practices for “harvesting” trees in BC is wasteful, with large quantities of material left to be destroyed by open-air “slash burning” to avoid providing potential fuel for wildfires. This unused waste is analogous to agricultural waste, or process waste from industrial production. It potentially represents a significant energy resource, equivalent to about 20% of the fossil fuels used in BC. This contribution will cover:

- why a potential resource is currently discarded;
- how combining LCA with economic analysis identifies the Pareto-optimal uses for the waste, both domestically and as an internationally traded commodity;
- why the supply chain means that Canadian wood pellets sold into European markets have a different life cycle environmental profile compared to pellets from other sources;
- how current international agreements on accounting for life cycle emissions of greenhouse gases give perverse signals that discourage production of wood pellets in BC.

Although the case study is specific to BC, it illustrates a number of general principles and barriers to “valorisation” of materials currently regarded as waste.