

METHODS

Confusing liquidation with income in BC's forests: economic analysis and the BC forest industry

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Abstract

Forest exploitation in British Columbia is currently unsustainable. Economic analysis is frequently used to justify the high rate of cut by documenting the revenue, job and wage benefits of current industrial forestry. However, Hicks' definition of income implies that it is poor accounting practice to count the consumption of natural capital as income. Yet in BC, economic analysis fails to make adjustments for the consumption of forest capital. Such analysis provides society with misleading signals of future economic prospects. By reference to landscape ecology, conservation biology, forest ecology, and ecosystem-based management, this paper sets out requirements for a forest management regime that maintains forest capital intact and for determining a rate of cut that would likely maintain ecosystem structure and function. This ecologically sustainable rate of cut can be seen as an 'extraction ceiling'. Extraction beyond this ceiling is considered to involve natural capital consumption. This extraction ceiling is used to divide the proceeds from timber extraction into 'interest' and 'depletion' streams. The interest stream is consistent with maintaining capital intact, and can be considered true income. The depletion stream involves capital consumption. Basing economic analysis of the forest industry on an extraction ceiling encourages debate about defining sustainable extraction levels and about how to make the transition to sustainable forestry. It also shows that the timber industry overstates its contribution to government revenues and to the province's economic well-being. Critics of industrial forestry in BC have yet to take full advantage of how proper accounting for natural capital depletion can show the advantages to moving towards an ecoforestry approach. By insisting that economists make adjustments where natural capital depletion is projected to occur, advocates of ecoforestry can ensure a more level playing field for the comparison of industrial forestry and ecoforestry. © 2000 Elsevier Science B.V. All rights reserved.

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1. Introduction

The forests of British Columbia, Canada's westernmost province, range from globally rare

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coastal temperate rainforests to northern and alpine spruce forests, and cover an area of 59 million hectares, of which slightly less than half is considered commercially important and available for timber cutting (BC Ministry of Forests, 1996). In 1994/1995, 190 000 hectares of public forest were cut, with over 90% of the total volume coming from clearcutting old-growth stands. Most of the forests are publicly owned, with long-term tenures granted to large, vertically integrated forestry corporations. Two-thirds of the annual cut is controlled by the top 17 corporations. The forest industry makes up a declining but still important proportion of provincial GDP; in 1997 there were 78 000 direct employees (4.2% of the provincial labor force) and the industry generated \$16 billion (Cdn) in sales (Marchak et al., 1999).

The BC forest industry portrays itself as the engine powering the provincial economy: it provides jobs and it fills provincial coffers so that society can afford to have good hospitals, to pay teachers, and to offer social assistance (Price Waterhouse, 1998; Council of Forest Industries, 1999). Yet there are mounting concerns that industrial forestry is causing unacceptable environmental impacts, including soil degradation, destruction of fish habitat, impairment of water quality, and loss of biodiversity (Hammond, 1991; M'Gonigle, 1997; Sierra Legal Defense Fund, 1997a,b; Marchak et al., 1999).

BC environmental organizations and disaffected foresters propose an alternative commonly known as ecoforestry (Hammond et al., 1996; Greenpeace, 1997; Silva Forest Foundation, 1999; Travers, 1999). Under ecoforestry management, clearcuts would be replaced by partial cuts; planning would be ecosystem-based, with much of the forest set off-limits from logging; and cutting would be less frequent to allow the forest to develop old-growth characteristics. As a result, the volume of timber removed annually would fall by 65–90%, a reduction somewhat offset by the fact that timber derived under an ecoforestry management regime would be of higher quality as harvest age would be greater (Scientific Panel, 1995; Hammond et al., 1996; BC Wild, 1998, p. 33). Proponents of the status quo such as the Council of Forest Industries and the Ministry of Forests argue that the large drop in

timber outputs entailed by ecoforestry would cause wages and tax revenues to plummet and British Columbians to lose their high standard of living (Wilson, 1998; Council of Forest Industries, 1999).

All participants in the forestry debate fail to address a fundamental accounting error. In British Columbia the consumption of the forest's natural capital is treated as income. The province is involved in an unacknowledged form of deficit financing. Current comparisons between industrial forestry and ecoforestry are thus unfair. Until critics of industrial forestry tackle this accounting sleight of hand, they place themselves at a disadvantage in challenging the status quo. Ecoforestry is designed to maintain natural capital (Travers, 1999); industrial forestry was designed to liquidate natural capital, replacing BC's old-growth forest inheritance¹ with tree plantations that fail to provide the same range of ecosystem services (Hammond, 1991; Marchak et al., 1999). The situation in BC has parallels around the globe. As the co-chairs of the World Commission on Forests and Sustainable Development wrote in the foreword to their report, 'Rather than living on the 'interest' of the 'natural capital', we are borrowing from poorer communities and from future generations' (World Commission on Forests and Sustainable Development, 1999, p. 4).

This article proposes a pragmatic approach to correcting for renewable natural capital consumption in economic analysis of BC's forest industry. It does not address the consumption of non-renewable natural capital.

This article makes three main points:

- economic analysis ought to make adjustments for natural capital consumption;
- BC is failing to maintain forest capital intact, yet government and industry are treating the proceeds from unsustainable industrial forestry as if it were income; and
- advocates of forestry reform should push for proper accounting for natural capital depletion such that the implications of both status quo

¹ It would be more accurate to acknowledge that this 'inheritance' came from dispossessing the original inhabitants of the land.

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