Re-Capturing the Wealth

Investment Solutions for Jobs and Environmental Sustainability in BC's Resource Sector

by Dale Marshall

Part of a series of CCPA research papers on the BC resource sector

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Summary

THIS PAPER IS AN INVENTORY OF EXCITING POLICY IDEAS – SOME POLICY "STICKS", but mostly policy "carrots" – for encouraging new investment in BC's resource sector. Instead of a piece-meal approach, what is needed is a comprehensive strategy for getting investment – from many places and in different forms – to move the resource sector towards a more viable *and* responsible position.

Investment is crucial in any industry. It is a prerequisite for job creation and productivity improvements. New investment is also necessary if BC's resource sector is to adopt new environmentally-friendly technologies and move up the value chain, thereby providing resource-dependent communities with both economic stability and environmental sustainability.

When corporations mount campaigns to protest what they call government intervention, they often do so by using the media to "inform" the public about government intrusion into the business world generally, and the activity of the markets more specifically. One of the more unfortunate consequences of this activity is that the public, in whole or in part, begins to believe that government is nothing but a nuisance to business.

The investment strategy outlined in this paper challenges BC's resource corporations to enter into a new social contract with British Columbians, by working cooperatively with the government that represents them. This approach concedes that there are changes government can make in order for resource corporations to more effectively operate in this province. However, it also argues that corporations have responsibilities too.

But a new approach also involves looking for alternatives to the present industrial and investment structure. BC must develop alternative sources of investment. The more options a government has to choose from with respect to managing its resources, the more bargaining power it has with each entity wanting a piece of those public resources.

Recent investment patterns

The resource sector in BC was plagued throughout the 1990s by a lack of investment. Forest companies have invested just enough to counter the depreciation of their aging machinery. Opportunities to become more efficient and productive in pulp and to move up the value chain in solid wood have been foregone, leaving the industry in an uncompetitive and unstable position compared to forest companies elsewhere in Canada and abroad.

Metal mining companies have dramatically reduced their exploration expenses. Some, like Placer Gold, have pulled out of the province altogether, preferring to invest in existing mines in locations like Chile, with dubious environmental and labour records.

The trend in the commercial salmon fishery has been towards consolidation of the fleet and investment in salmon aquaculture. The major salmon farmers in the province – including BC Packers, one of the "big three" wild salmon fishing companies – are now multi-nationals that have turned their investment dollars towards operations in Chile, Norway, and the U.S.

Results of the investment slowdown

The slowdown in investment is unsettling for several reasons. The first is that real investment – investment in physical things like machinery and buildings rather than stocks, bonds, and other paper investments – leads to increases in productivity. And productivity gains across an economy eventually translate into job growth.

A second result of the decline in investment is that BC is still too dependent on basic commodity production: lumber, pulp, salmon, gold, and copper. Yet value-added production in fish and forest products is the only way to sustain growth on a fixed resource base. Non-renewable resources like metals can only be made more renewable by taking advantage of their durability through reusing and recycling them. In BC, we have not sufficiently engaged in any of these activities by failing to invest in the manufacturing and marketing of value-added products.

Finally, there has not been enough investment dedicated to becoming more environmentally sustainable. On top of environmental performance, investment in resource use efficiency and "clean production" can lead to cost savings and an opening-up of markets for environmentally-friendly products.

Towards a new investment strategy

The policy ideas presented in this paper are intended to re-capture the wealth generated from our public resources and put it back to work accomplishing the goals outlined above: increased productivity and innovation, a commitment to value-added production, and greater environmental sustainability. Most people, including corporate executives, acknowledge that there has been a lack of investment in British Columbia. However, the investment strategy that is outlined in this paper is not the one generally cited in our daily newspapers — namely tax cuts and decreased regulation. Government can assist resource corporations in fulfilling their objectives, but government concessions should never be a blank cheque. If corporations argue that decreased taxes or lower resource rents will lead to increased investment, then any concession must be tied to an ironclad commitment that industry will make those investments.

This paper also reminds policy makers that there are other potential investment players besides the large corporate sector who can develop natural resources and create wealth and stability for resource-dependent communities. Communities themselves, co-operatives, workers, the small business sector, First Nations bands, and public finances can all be a source of investment capital, and are frequently less willing to compromise the long-term ecological integrity of BC's natural systems or the health of the people of the province.

Policy alternatives

The policy alternatives proposed in this paper would go a long way in generating new investment in BC's resource sector. Some ideas are specific to one resource sector, while others apply to several natural resources.

In order to increase investment in value-added wood products, the provincial government should:

- ban the export of raw logs from Crown land;
- provide tax credits to forest companies investing in value-added production, with the revenue coming from increased stumpage rates; and
- make more wood available to small firms wanting to manufacture value-added products by reforming the Small Business Forest Enterprise Program and establishing more log yards.

The policy ideas presented in this paper are intended to re-capture the wealth generated from our public resources and put it back to work.

Pulp mills can be encouraged to meet Zero-AOX regulations (eliminating chlorinated toxins from their effluent) and become closed-loop by:

- providing low- or zero-interest loans to pulp producers wanting to invest in closed-loop technology;
 and
- extending the deadline on the Zero-AOX Law (with a firm end date), but implementing a tax shift
 policy that increases the cost of AOX emissions, with revenues used to give tax credits to companies
 investing in compliance.

For reasons of social justice and putting an end to uncertainty in BC, the provincial and federal governments should:

• negotiate interim agreements with First Nations people and, as part of treaty settlements, provide them with resources to develop forestry plans and market ecologically-friendly forest products.

In fisheries, the two levels of government should work together to:

implement a progressive royalties system in all fisheries, with the revenue being used to diversify
fishing economies and develop and market locally-based, sustainable fish products.

The province should also:

mandate a future ban on open net fish farms and – in the interim – implement a tax shift policy that
increases fees for open pen licenses and grants tax credits for the purchase of closed containment
technology.

In order to generate a more sustained flow of capital from non-renewable resources, the provincial government should:

- establish a trust fund by pooling a portion of resource royalties and taxes from oil, gas, coal and other
 mining operations, with the capital used for economic development projects within the province;
 and
- amend the Mines Act so that companies developing a non-renewable resource must pay a community transition bond, to be used by the community and workers for transition once the project is completed.

Finally, a diverse array of policy mechanisms can be used to generate investment. These policies include:

- establish a Provincial Resource Investment Bank to collect revenue from various resource activities and BC investors, and extend favourable financing to investment projects evaluated through a transparent, competitive bidding process;
- pass enabling legislation for communities to develop economic development plans, and help communities acquire the capacity to realize them;
- establish performance requirements for companies receiving government grants or subsidies, with penalties (a requirement to pay back the grant or subsidy with interest) for companies that fail to meet those requirements;
- implement policies that facilitate and encourage the development of employee share ownership plans in BC companies.

This list is not exhaustive. These and other policy ideas are elaborated upon in *Re-Capturing the Wealth*. All are hopeful and realizable policies that together form a compelling investment strategy to reinvigorate BC's resource sector.

Origins of the CCPA Resource Economics Project

RE-CAPTURING THE WEALTH IS THE THIRD IN A SERIES OF CCPA STUDIES AND POLICY BRIEFS dealing with the economics of BC's resource sectors. This report is a follow up to the first publication, Follow the Money: Understanding the Crisis in BC's Resource Sector. As the name implies, the first study documented the social and economic instability of BC's resource sector in the 1990s. It also argued that the crisis occurred partly due to reluctance by resource corporations to adequately invest in their BC operations. Re-Capturing the Wealth builds on that analysis by providing an inventory of policy alternatives to reinvigorate investment in BC.

The Resource Economics Project began when the Centre's BC Office was approached by a coalition of labour and environmental groups meeting under the auspices of the Vancouver and District Labour Council (VDLC) Environment Committee. This coalition requested that our Centre undertake research into BC's natural resource sector. Attracted by the Centre's solid research reputation, these organizations asked the CCPA–BC to conduct an economic analysis of BC's resource sector, with the hope that the resulting research may help to move the public policy debate beyond the jobs-versus-environment dichotomy. The CCPA agreed and the *Resource Economics Project* was born.

The CCPA established an advisory group for the project, with representatives from many of BC's most prominent environmental groups, resource unions, and the First Nations Summit. The advisory group has been an invaluable source of understanding and analysis, and our project, in turn, has provided a unique meeting place for these different organizations to share information, exchange policy ideas, and begin to find common ground in the long-term search for more stable and secure resource communities. Early on, the advisory committee identified investment as an area of particular interest, specifically how investment can be captured to ensure that the wealth generated from BC's resources is re-directed towards the future economic and environmental well-being of all British Columbians.

Dale Marshall has been the resource policy analyst since early in 2000 and authored all three published reports.

Introduction

The first important theme to emerge from this paper is that concessions from government cannot be a blank cheque.

THE DEEPLY ROOTED PROBLEMS OF BRITISH COLUMBIA'S RESOURCE SECTOR WERE investigated in an earlier CCPA publication, *Follow the Money: Understanding the Crisis in BC's Resource Sector.*¹ The report found that international factors – mostly low prices for many commodities – not BC resource policies, were to blame for the economic and social instability that occurred in the 1990s in much of BC's resource-dependent communities. A second conclusion from the report was that corporations exacerbated the problem by investing in increased commodity production elsewhere in the world, rather than moving up the value chain here in BC. This happened in forestry, mineral mining, and salmon aquaculture.

Despite the global nature of many companies' poor performance, corporate executives waged a media campaign against the last provincial government to "streamline" environmental protections and reduce corporate taxes, and demanded more "flexibility" from their workers. The government, on the defensive, reacted in piecemeal fashion by rolling back some regulations and keeping others in place, decreasing industry costs when pressure mounted. Yet resource corporations are still not making sufficient investments in the right areas, such as becoming more productive and efficient, moving up the value chain, applying new environmental technologies, and improving environmental performance.

Some of the concessions that resource corporations are requesting of the provincial government are valid – they can help to increase efficiency and profitability without compromising the sustainable management of our resources – and need to be considered by political decision-makers. But the first important theme to emerge from this paper is that concessions from government cannot be a blank cheque. A healthy resource sector can only be realized when policies require that profits be re-invested in BC. In short, governments must enter into a broader social contract with industry.

A second theme is that the provincial government must use the public resources it has within its control to strike a better deal with industry. Government must take seriously the social contract that it has with its citizenry, and ensure that they are the main beneficiaries of economic activity in the province. This is not, of course, the strategy spoken about in the boardrooms of this province or written about on the pages of our newspapers. It is a different type of strategy, one that encourages active government participation rather than the laissez-faire approach of letting markets determine the management of our natural resources. This strategy must challenge corporations to make necessary investments, but must also consider alternatives to waiting for them to act. An alternative strategy must involve creative policy tools for fostering investment from many sources – private sector, public sector, co-operatives, First Nations, and communities.

Which leads to the third major theme of this paper: for governments to bargain effectively with industry, they must have other options – namely a more comprehensive policy approach to investment and economic development. Too often governments assume – to the benefit of industry players – that transnational corporations are the only potential source of needed investment. Government must think outside the box, realize that investment can come from many places, and let transnational corporations know that they are not the only game in town. There are social pools of capital that can be tapped to produce required investments. Communities, co-operatives, First Nations, small industry, even workers themselves acting collectively are all sources of capital that can be supplemented with public investment to create vibrant but responsible resource sectors. The provincial government should foster investment from those actors in order to broaden its economic development strategy.

The fourth and final theme has to do with sustainability. Being dependent on investment from transnational corporations that expect a greater than 12% rate of return is clearly unsustainable. We need an investment regime that gives us more options than this model of commerce.

From a government's perspective, investment policy is key to meeting the public policy goal of economic development and job creation. This is because, traditionally, provincial governments have economic development goals and strategies but no investment policies, whereas companies have investment strategies but no economic development plans for the communities in which they operate. Governments need to bridge this divide between the public and private benefits of investment. In this context, the argument that governments should stay out of the private sector in order for investment and innovation to occur is false. The corporate sector needs government, and the state is deeply involved in the success of resource corporations. Instead of a race to the bottom, investment can and should occur within a system that also takes into account important social factors such as jobs, social programs, and environmental protection. In fact, a healthy economy is one that creates prosperity and meets the social needs of its citizens.

This paper, a follow-up to *Follow the Money*, is an inventory of hopeful and realizable policy alternatives for re-capturing the wealth generated from our public resources, and putting it back to work higher up the value chain. Some of the ideas are policy "carrots", while others are "sticks". All would have the result of increasing community economic, social, and environmental security on a resource base.

Instead of a race to the bottom, investment can and should occur within a system that also takes into account important social factors.

1 Why does investment matter?

BC's resource companies have been much more active with respect to financial investments than they have been with real investment.

We hear a lot about investment and what is required to obtain it. Investment is central to the functioning of an economy. It increases productivity and economic growth, produces more and better jobs, and increases prosperity. But it is worthwhile to take a look at the cause and effect relationship of these various economic outcomes.

First, we must define what investment is and what it is not. It is spending money on the production of goods and services in order to create a flow of products for consumption. Essentially, it means foregoing some present wealth to build the potential to create more wealth in the future.

In his book *Paper Boom*, economist Jim Stanford points out the difference between what he calls "real" investment and financial investment.² He defines real investment as investment in the purchase or construction of physical things: tools, buildings, machinery, and raw materials. Because what the company or individual is buying is an actual physical entity, it requires not only people to conduct the transaction, but also to build and deliver it. The implications for economic activity, including job creation, are significant.

By contrast, financial investments involve the buying of stocks, bonds, or mutual funds by companies and individuals. These transactions are intended to facilitate real investment, by channeling people's savings into the hands of companies and providing them with needed capital. Unfortunately, too often that capital is used for either speculation or to make other financial investments,

like merging with or acquiring other corporations. These simply involve a transfer of wealth from one entity to another, with no money going towards the purchase of anything real. This type of paper investment delivers very little in terms of real economic progress.³ As will be seen in Section 1.5, BC's resource companies have been much more active with respect to financial investments than they have been with real investment, especially investment that goes beyond simply replacing old or failing machinery and infrastructure.

1.1 The productivity edge

The reason businesses make real investments is in order to make profits from that investment. For existing operations, a big part of real investments involves becoming more productive. Productivity is essentially the turning of inputs - raw materials, labour, and physical infrastructure - into outputs, the goods or services produced by the business, for consumption. By investing in newer equipment, a business can become more efficient at using raw materials so there is less waste (of materials and of capital required to purchase these materials), can make workers more effective at performing their tasks, or change the production process to one requiring less time, energy, or raw materials. The overall goal is to increase outputs or decrease inputs or both.

In general, more capital-intensive operations – businesses that have made more real investments – will be more productive, leading to economic

growth for the firm and, potentially, higher wages and salaries for its employees. In fact, econometric analyses – which use sophisticated economic models to determine cause and effect relationships – show that differences in the capital intensity of various firms explain the majority of their differences in productivity and the majority of their differences in earnings. In other words, the more capital a firm invests in its activities, the greater its productivity and profits.

1.2 Growth and jobs

At the level of provincial or federal economies, economic growth creates new employment.⁶ In North America and much of the western world, this was most evident in the immediate post-World War II period, when economies and the number of jobs grew at astounding rates. Since the 1960s, however, the rate of economic growth (and the rate of job growth) has continued to decline.

What is interesting about the 1990s is that the economic expansion that happened in Canada through much of the decade (until 1997 or so) did not result in the expected level of job growth. Part of the explanation has to do with high interest rates, especially in the first part of the decade. But another big reason is that firms operating in Canada have focused more on making financial investments - in the form of acquisitions, takeovers, and mergers - foregoing the job-creating impact of real investments. Foreign take-overs of Canadian companies have also been on the rise. The increased capital mobility brought on by free trade in all its incarnations has certainly facilitated these developments. The deregulation and explosion of financial markets also played a role, making paper investment more attractive than real investment. Meanwhile, company executives realize the public benefits of real investment – a

strong economy and employment growth – and so they press governments for concessions in exchange for their investment dollars.⁷

Governments can respond to this pressure in several ways. One approach would be to heed the demands of businesses and investors and move toward a "business-friendly" investment climate, by cutting regulations and corporate taxes or further liberalizing the economy. By doing this, governments hope that businesses will take the increased revenues that flow from these changes and make real investments. However, the result of this leap-of-faith approach is often higher returns for financial investors, not a boost in real investment or increased employment.8 In fact, some economists argue that the cause of mass unemployment is an increasingly unregulated, internationalization of the economy and governments' focus on making their domestic firms more competitive over the social goals of full employment and the investment required to attain it.9

Governments have alternatives at hand. Because investment brings such important public benefits, governments need to take an active role in promoting investment spending. In essence, investment is too important to be left to self-interested businesses and investors.

With respect to BC's resource industries like forestry, fisheries, and mining, both labour unionists and environmentalists are understandably nervous when discussing productivity and growth as the goals of investment. For people working in these industries, which rely on finite supplies of natural resources, increased labour productivity means a loss of jobs. ¹⁰ For the same output, increased labour productivity necessarily means less employment. Productivity increases in the early 1990s, for example, meant massive job losses in BC sawmills. For advocates of environmental pro-

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tection, growth means that more of BC's cherished natural spaces and wildlife are consumed by industrial activity and that more water and air pollution result in higher risks to human health.

So long as our resource companies exist within a capitalist economy, however, the solution to these dilemmas is not to stop investing and growing. Rather, the solution is to generate more economic activity from the same limited resource — that is, to invest in manufacturing more, higher value-added products within BC, in a more environmentally-friendly manner.

1.3 The value in value-added

Value-added production is possible in many of this province's resource sectors including forestry, fisheries, mining, and energy. We seem to hear about it most in the forest industry, likely because the possibilities are so rich in this sector. One subsector of value-added forest products is secondary manufacturing in the solid wood industry. This includes remanufacturing, millworking (making doors, windows, and moulding), and making engineered wood products, cabinets, furniture, pallets/containers, and other wood products. Detailed analysis of forest sector manufacturing shows that greater economic activity and greater employment result from producing higher valued products.11 Secondary manufacturing also produces more favourable returns compared to the primary forest industry.¹² This is especially true during years like 1998, when the price of forest-related commodities like lumber are low.¹³ These reasons are why we have had the continued - yet largely ignored call from both the labour and environmental communities for resource corporations to move up the value chain. If we are to have a successful and stable resource sector, this must become a major goal of our province's investment policy.

Some forest companies with operations in BC do engage in value-added production; they just don't do it here in BC. For example, Weyerhaeuser has a large research and development facility in

Tacoma, Washington but none in BC. Daishowa produces and uses BC pulp to manufacture paper in Japan. Not surprisingly, the U.S. and Japan respectively are where those forest companies are based.

Another objective that can be embraced by different stakeholders, including business, is resource use efficiency and "clean production". Efficiency gains and the use of cleaner processes can often lead to cost savings due to less reliance on costly material inputs or pollution abatement technologies.14 It also opens up new markets for environmentally-friendly products. There is growing evidence that environmental sustainability does not need to come at the expense of jobs or competitiveness. These types of innovations, however, do require investment, in this case in both the research and development of new technologies and the purchase of new equipment. Though the required investment is sometimes made for other reasons (e.g. to reduce costs), often what is required is the push of environmental regulations, a policy tool that business interests are, unfortunately, often strongly opposed to.

One development that brings together increased environmental responsibility and the social and economic benefits of value-added is ecocertification. Eco-certification has had a much higher profile recently in both British Columbia and Canada and is being increasingly embraced by our resource industries. This trend is most developed in the forest industry, but is also present in fisheries, and is slowly gaining momentum in mining as European consumers press mining companies to accept "cradle to grave" responsibility for their minerals.

When done right, there can be environmental and social benefits to eco-certification. Eco-certification can preserve the integrity of terrestrial and aquatic ecosystems while harvesting from them. It can also increase employment in those activities and open up markets for producers of eco-certified products. A perfect example is Shawood Lumber. Since the Langley sawmill certified its opera-

tions through the Forest Stewardship Council (FSC), it cannot produce enough of its cedar lumber to satisfy European demand¹⁵.. However, it must be remembered that eco-certification is still a market-based approach to resource extraction, one that does not necessarily lead to ecological sustainability per se or an increase in employment. The certifying body, and its principles and how they are applied, will play a big part in determining the outcomes.

1.4 The role of environmental regulations

Often there are complements, not trade-offs, to being efficient that involve both the public interest and corporate responsibility. 16 One example is with respect to environmental laws. When new environmental regulations are being proposed, industry frequently claims that it can't afford them, that they will make them less competitive, and occasionally that they will have to shut down and lay off workers if regulations go through. The reality is that the corporate sector always overestimates the cost of adhering to new legislation.¹⁷ Forgotten in their analysis are the environmental benefits that result. Even less discussed is the reality that the economy can thrive by introducing environmental legislation.

Jim Stanford likens the struggle to solve our environmental problems to the way we deal with natural disasters.¹⁸ The economy often booms immediately after disasters. The reason is investment. Governments usually commit money for emergency aid. Industry reluctantly invests dollars that it didn't foresee and would not have spent otherwise. The result of this spending is productivity gains, economic growth and job creation. Wouldn't it be nice, Stanford asks, if we could have all these positive economic outcomes without having to actually experience a disaster? The answer to this rhetorical question is that we can, by treating the increasing environmental problems we face as we do a sudden flood or earthquake, and spend money to fundamentally shift our industrial activities towards environmental sustainability.

It is also possible for those industries to increase their productivity and revenues. Michael Porter and Claas van der Linde, in a paper published in the Harvard Business Review, concluded that "properly designed environmental standards can trigger innovations that lower total cost and improve value.... This enhances productivity and makes companies more competitive, not less."19 An analysis of different industries has found that there is a weak association between investment in environmental abatement technologies and greater returns on investment.20

This does not mean that environmental legis- When done right, lation will automatically lead to greater competi- there can be tiveness. At the very least, though, the two are not environmental mutually exclusive. That is not to say that any and and social all environmental legislation is appropriate or that benefits to ecowe don't have to be careful about how we craft certification. environmental policy. Governments need to be clear about what their objectives are in implementing legislation, and consistent in their approach. A careful analysis of the environmental problem in question is required in order to understand the intertwined factors that are involved. When making the final decision on where action will occur, governments must be visionary, not piecemeal.

There is a role for industry to play in how to achieve environmental goals. The key is for government to implement laws that allow industry to be innovative in meeting those goals.²¹ When environmental policy is designed and enforced in a manner that is conducive to stimulating innovation, the easier it will be for industry to find least cost solutions.²² In short, it doesn't serve the business lobby's interests to oppose every single environmental initiative. By continuing to be involved – but with a greater commitment – in the discussions over how to solve environmental problems, industry can play a part in provoking meaningful change that also fits within its mandate of generating profits and return on investment.

1.5 Evidence of an investment slowdown

Historically, those who invested in the resource sector were in it for the long haul. They understood the dynamic nature of the industry, be it forestry or fishing or mining or energy. Markets – especially commodity markets – were cyclical but, in the long run, resource corporations made substantial profits and their shareholders made good returns on their investments. These investors also understood that the key to long term success was an investment strategy that increased productivity.

A recent report
by Ernst & Young
concludes that
BC could easily
capture 5% of
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market for valueadded products
in construction
alone. However,
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investment would
be required.

Lately, there has been a shift in the shareholders who invest in resource corporations. Increasingly, these shareholders are institutional investors who are looking for higher and quicker returns from their investment dollars. When the BC forest industry announced a \$600 million profit in 1999, a Globe and Mail forestry reporter bluntly stated "A 12% return is considered break-even in the industry, but...the province's figure was only half that.... The industry is, in effect, still losing money."23 In short, we are told it is no longer enough in the era of globalization for resource corporations to have profits. Profits have to translate into increased share prices. The resource corporations are therefore urged to focus on remaining cash-rich, so they can pay dividends to shareholders or purchase capacity elsewhere. Another option for companies to look good to investors is to use capital to retire debt. These strategies, intended to keep share prices buoyant, are at odds with real investment and are doing nothing for the long-term viability of our resource industries.

BC's forest industry is plagued by under-capitalization.²⁴ Comparing BC's investment levels to that of forest companies in the rest of Canada reveals this. Throughout the 1990s, BC forest companies have barely maintained an investment to depreciation ratio of 1:1.²⁵ The industry went from average expenditures of over \$2 billion per year in 1988-1990 to under \$900 million per year in

1997-1999 (the data for 2000 is not yet available). ²⁶ Capital expenditures actually dropped below depreciation in 1998 and 1999. ²⁷ Investment in the rest of the country has been considerably higher ²⁸, enabling other companies to not only replace aging machinery and infrastructure but also to move up the value chain, buy the newest cost-saving technologies, and overall to become more innovative. ²⁹

A recent report by Ernst & Young criticized the forest policies of the province and the forest companies themselves for not moving beyond the production of two-by-fours.³⁰ The report concludes that BC could easily capture 5% of the \$200 billion market for value-added products in construction alone. However, a \$5 to \$8 billion investment would be required. Instead, BC is moving in the other direction, closing value-added plants³¹ and increasing its raw log exports. Raw log shipments from Vancouver have increased tenfold, from 75,000 tonnes in 1995 to 770,000 tonnes in 1999.³²

At the beginning of the 1980s, BC enjoyed a cost advantage in pulp over most places in the world, while mills in Ontario and Quebec were amongst the most expensive. Since then, eastern companies have invested in their mills and now turn fibre into pulp at much cheaper rates than BC.³³ One analyst has calculated that the BC pulp industry requires \$3 billion dollars in investment over the next four years in order to become competitive.³⁴

It's not like BC pulp mills and sawmills are suffering from a lack of capital. There was enough cash floating around for a merger between Weyerhaeuser and MacMillan Bloedel, the Tembec acquisition of Crestbrook, the Canfor takeover of Northwood, and Pope & Talbot's acquisition of Harmac's and Weyerhaeuser's pulp operations. As one industry analyst describes it, the investment community applauds companies acquiring existing assets while remaining skeptical of any new capital expenditure, even for cost-effective expansions in value-added production.³⁵

Mining companies have also neglected to invest in their future viability in BC. The industry has been restructured so that junior mining companies are now doing most of the risky exploration.³⁶ Shareholders, more than ever, can play the lottery, hitting it big when the "juniors" do. It's the ultimate in speculation. Exploration in BC is still down overall, from \$300 million in the early 1990s to \$25 million last year.³⁷ The transnationals, meanwhile, are content to purchase existing mines, preferably in locations where labour and environmental standards are lower than in BC. Placer Dome, a BC-based company, now has no operations in BC but several in Chile, which has opened up its mining operations to foreign investors in the last ten years.

In the West Coast fishery, the trend has been for the larger companies to invest in aquaculture (or fish farming). The "big three" fishing companies have been consolidating the fishing fleet and BC Packers has been increasing its investment in salmon aquaculture. If this technology wasn't so devastating to the marine ecosystem, salmon fish farming might be a justifiable way to increase ocean productivity. As it stands, the only reason this industry is viable, considering the high costs of feed and antibiotics, is because the large ecological costs are being externalized. Those paying the costs, economically speaking in any case, are wild salmon fishermen.

The result of not making needed investments has been well documented in *Follow the Money*. They include cyclical patterns of boom and bust

that follow commodity price swings, ecologicallyunsustainable resource extraction, and unrealized economic potential. On the other hand, there are many overlapping objectives that can be accomplished with a strong investment strategy. Investment in productivity and innovation can make our firms more efficient and less wasteful. Investment in value-added production gives us a larger economic bang for our natural resources buck, creating jobs and stability for resource-dependent communities. And environmental goals – less resource use and less pollution for example – are entirely compatible with these economic and social objectives.

The rest of this paper explores policy alternatives to move BC's resource sector in this direction - towards economic, social, and environmental sustainability. It begins by looking at three major resource sectors: forestry, fisheries, and mining/oil and gas. The final section addresses ways that policy and legislation can be used to prompt resource corporations to be more responsible to their workforce and the communities in which they operate. This section also presents options that enable workers, communities, cooperatives, or First Nations people to control their destinies by diversifying local/regional economies or transferring to them control of the resource base. Each policy idea presented can be implemented on its own or, more appropriately, in conjunction with others in order to address the many problems plaguing BC's resource industries and communities.

There are many overlapping objectives that can be accomplished with a strong investment strategy.

SECTION

2 Forestry

BC'S FOREST RESOURCES ARGUABLY HAVE the most potential for contributing to new and creative directions in resource policy. BC still has valuable forest resources, these resources have a plethora of potential end uses, and their value and utility are reflected in the fact that the majority of BC's exports are products of our forest industry.³⁸ Potential policy alternatives in forestry include promoting value-added manufacturing, encouraging eco-certification, and tenure reform.

2.1 Value-added opportunities in forestry

The provincial government has to adopt a twopronged approach in order to get more value out of BC's forests. First, the province has to make it feasible, i.e. more profitable, for the big forest companies to manufacture value-added forest products rather than merely commodities such as lumber and pulp. Second, smaller firms making valueadded products must be able to access wood in order to make those products.

2.1.1 Solid wood

The very first mechanism that the province should use to increase the value of our forestry products is to ban raw log exports. It is an unfortunate reality that those companies able to remain profitable during low commodity price cycles are not only those making value-added products, but also those

exporting raw logs. In 1998, for example, companies that managed to stay afloat included TimberWest, whose primary activity was to cut trees and export them.³⁹ In the short term, this strategy works for some companies, but the economic prosperity of the province is curtailed in the long run. Log exports should, therefore, be allowed only in the very narrow circumstance where there are net, value-added returns to B.C.⁴⁰ It is also important for the provincial government to work with its federal counterpart to restrict raw log exports from private land, since private land is the major source for these exports.

This ban would obligate BC forest companies to at least engage in minimal processing of that timber. More wood would also be made available (potentially at a lower price due to increased supply) to firms wanting to go beyond commodity production and produce fine wood products.

Unfortunately, the North American Free Trade Agreement (NAFTA) and the World Trade Organization (WTO) present potential obstacles. Under these trade liberalization agreements, it is possible that restrictions on raw log exports could be considered an unfair subsidy to the BC industry, or an illegal "performance requirement", by not allowing the free flow of logs. The BC government must, however, move forward with progressive policies that are in the best interest of the BC forest industry and British Columbians (see *A Word about NAFTA*).

POLICY RECOMMENDATION: The provincial government should ban the export of raw logs from Crown land and work with the federal government to do the same with raw log exports from private land.

Simply restricting raw log exports, however, is not enough. The government also needs to put into place incentives for the larger forest companies to make long-term investments in remanufacturing and other value-added activities. One way to do this is to increase the stumpage on all wood but use the increased revenue to give tax credits to companies making investments in value-added production. This would not only address the allegation of subsidy coming from south of

the border, but also provide the capital to move the industry up the value chain.

POLICY RECOMMENDATION: The provincial government should provide tax credits to forest companies investing in value-added production, with the revenue coming from increased stumpage rates.

The coastal producers of solid wood products have been hit hard recently, not only because of low allocations of export quota under the Softwood Lumber Agreement, but also because of changing market demand in Japan. The devastation of the earthquake in Kobi has meant that BC's coastal hemlock has fallen out of favour with Japanese homebuilders.

A word about NAFTA

Ever since the signing of the North American Free Trade Agreement (NAFTA) and the creation of the World Trade Organization (WTO), it is difficult to develop policy without wondering if and to what extent this policy violates these trade liberalization agreements. This is especially the case in the resource sector, where commodities are traded globally and the bulk of production and trade comes increasingly from multinational players.

Some of the policies put forward in this paper are potentially NAFTA- or WTO-challengeable. Considering the U.S. claims of dumping and subsidies against BC's forest companies – despite two past rulings in Canada's favour on similar charges – it appears nothing is above being challenged. However, one of the more important aspects of these trade agreements has to do with "national treatment", which essentially dictates that all companies, foreign and domestic, must be treated the same. None of the policies proposed in this paper violate this requirement.

Nonetheless, there are some policies proposed in this paper that are contentious from a free trade perspective. Performance requirements for companies wanting lower tax rates, government-funded infrastructure projects, environmental regulations generally (witness the Ethyl Corp. vs. Canada case), the provision of tax credits in exchange for investment commitments, and mandating the use of eco-friendly products are all open to allegations of violating free trade as it has been defined.

This self-doubt surrounding policy development epitomizes the "regulatory chill" that has been warned about by critics of trade liberalization. It must be resisted, and here is why: we cannot close ourselves off to considering smart, progressive policies that would produce clear benefits to British Columbians because of trade bureaucrats in Washington or Geneva. If and when any of these policies is challenged by self-interested trade partners, our governments must do what they can to defend their ability to govern in the interest of their citizens. If these disputes become overly onerous and costly – and especially if we lose them – then the only recourse is to renegotiate or rescind trade agreements and reestablish sovereignty over our country's economic and social policies. The alternative is to continue to be bound by trade agreements that have questionable merit in the first place.

CASE-IN-POINT: Forest Renewal BC

Forest Renewal BC was created in 1994 as a result of the softwood lumber dispute between the U.S. and Canada. American negotiators believed that Canadian forest companies were subsidized due to our Crownbased forestry system. Instead of money leaving the province in the form of export tariffs, BC raised stumpage rates on timber cut in the province, and channeled these funds into FRBC.

The original intent of FRBC was a good one. FRBC was to make investments in the type of activities that lead to a stable and healthy forest industry: appropriate silviculture, so that second-growth forests grow on forested land; rehabilitation of watersheds and streams impacted by forest practices; producing more value-added forest products; funding research and development to have a foundation of knowledge to continue with the above activities; and retraining and compensating workers that lose their jobs in the industry. Some have criticized FRBC for taking on tasks that should have been the responsibility of the forest companies in the first place. There is some validity to that argument, but given that the revenue was generated from "super stumpage" – stumpage above the standard level of resource rents – the pooling of money to enable needed investment was a laudable approach.

The reviews of FRBC's performance have been mixed. One success has been the level of research conducted by FRBC – studies of how to create more value from the forest industry, how to grow more trees in areas allocated to forestry, and how to conduct forestry in more environmentally sensitive ways. FRBC's silviculture program – ensuring that a healthy second growth forest grows on recently deforested land – created some short-term employment. FRBC has also provided some important training to forestry workers, has had significant First Nations participation in its programs, and has made important investments in firms interested in value-added production. It funded the creation of research and educational programs such as the University of British Columbia's Centre for Advanced Wood Products Processing.

But there have been shortcomings too. The Auditor General of BC was critical of how the Corporation spent its money in the silviculture program.⁴¹ It also failed to use its funds to leverage significant corporate investments for silviculture or value-added activities. Perhaps most importantly, FRBC has entirely abandoned workforce activities such as training, one of its more important functions.

In the last few years, FRBC has been operating with fewer resources than in the past. Recent decreases in stumpage have meant that revenue for FRBC has declined from \$470 million/year in1995-1998 to less than \$200 million presently. FRBC has focused the majority of its efforts on silviculture and watershed restoration. For example, this year 86% of its expenditures will be in these two program areas. In order to provide FRBC with sufficient operating funds (and in order to avoid tariffs imposed by the U.S.), increased stumpage needs to be allotted to FRBC.

A review of FRBC should be conducted in order to determine how the organization could better deliver results in its original program areas. An emphasis on increasing value-added production should be one of those priorities. Other barriers to moving up the value chain – accessing wood to be used in making fine wood products, for example – need to be addressed. Another priority should be to create transition programs so that workers laid off in the forest industry can fill positions where they are being created, in value-added production and in community forest projects. Silviculture programs have been successful and should continue to be conducted. Finally, FRBC's environmental activities – rehabilitation of streams and watersheds – should continue. However, the provincial government should develop strong legislation around forest practices so that streams and landscapes are not degraded in the first place.

More info: www.forestrenewal.bc.ca

Kiln-drying hemlock is one way to recapture market share in Japan. Kiln-drying increases the hemlock's strength and reduces the extent to which it warps. The government and industry need to work together to invest in developing kiln-drying technology and make it feasible. A strategy to fund this value-added project can be worked out, and might include some help from Forest Renewal BC (FRBC). Priorities for FRBC need to be re-evaluated given its historical performance and its recent decrease in operating revenue (see Case-in-point: Forest Renewal BC).

POLICY RECOMMENDATION: The provincial government should establish partnerships with coastal hemlock producers to invest in kilndrying technology.

Making wood more accessible to those wanting to produce value-added products is also fundamental to moving the industry up the value chain. A survey of firms who produce value-added solid wood products revealed that one of their major problems is accessing wood that meets their requirements.44 The Small Business Forest Enterprise Program (SBFEP) was conceived to allow small players to openly bid on wood that could then be used to make fine wood products within the province. This program was intended to exclude the larger forest companies, but it has become common practice for these companies to work with a logging contractor to make bids and obtain wood.⁴⁵ Also, the individual parcels of wood that are available for cutting are so large - between 1996 and 1998, for example, the average sale of solid wood in the North Coast forest district under the SBFEP was 13,000 cubic metres⁴⁶ – that smaller firms have to become medium-sized logging companies as well as value-added manufacturers. 47 The solution is to reform the SBFEP in order to truly allow fibre to get into the hands of the smaller players who are interested in manufacturing finer wood products and not just into the larger forest companies wanting to feed their sawmills or pulp mills.

Another solution is to establish log sort yards, where firms can buy smaller volumes of specialty wood. Yards like the one in Revelstoke have been

shown to increase the volume of wood going to the value-added industry. ⁴⁸ Two other benefits result from improved fibre access. A study of the Vernon log yard found that a majority of the timber sold there was harvested using alternatives to clear-cut logging. ⁴⁹ Also, wood gets sold at a higher price, generating greater revenues for the wood harvesters as well as the provincial government. ⁵⁰ Of course it would be impossible – and indeed undesirable – to have all BC's wood go through these log yards and thus be dependent on unpredictable market forces. However, this mechanism, on a limited but expanded basis, can help develop niche markets for quality wood products.

Another barrier to increasing secondary manufactured products is marketing.⁵¹ It is expensive for smaller, value-added firms to market to potential overseas customers. The provincial government should build partnerships with industry to promote BC-made products that have potential in overseas markets. These include laminated housing components in Japan, cedar garden furniture in the EU, and window and door components in selected European countries.⁵²

POLICY RECOMMENDATION: The provincial government should make more wood available to small firms wanting to manufacture value-added products by reforming the Small Business Forest Enterprise Program and establishing more log yards.

A more radical reform in BC forestry would be for the provincial government to break up the chain-of-command that allows firms to cut trees, operate the sawmills they go to, and also engage in value-added activities. Under this policy, forest companies would have to concentrate on one activity alone and sell off their other operations over a given time period, say 5 years. Some major forest companies have already made the move towards concentrating on a core business⁵³, and this would further the trend.

By de-linking the production process from logging to value-added production, the fibre would have to change hands, and all companies — including those who want to engage in higher valueadded production — would have equal access to it. Making wood more accessible to those wanting to produce value-added products is also fundamental to moving the industry up the value chain.

A more radical reform in BC forestry would be for the provincial government to break up the chain-of-command that allows firms to cut trees, operate the sawmills they go to, and also engage in value-added activities.

Higher quality wood would gravitate towards those operations that want to add the most value since they would be more willing to pay a premium price for it. Mills would also be able to specialize in producing a given finished product and therefore would not be restricted by local wood supply.

This policy would necessarily displace the current one of tying appurtenance clauses to logging licenses, obliging logging companies to run logs through a local mill. So long as no logs were exported raw, jobs would be preserved within the province. Being able to get the right log to the right mill would enable forest product companies to engage in more specialized and value-added production⁵⁴, which would also create more jobs.

2.1.2 Pulp

The pulp sector also has options for moving up the value chain. BC needs to diversify its product mix beyond pulp and newsprint. Given the tree species found in BC, lightweight-coated paper and folding boxboard are two viable options for the province. ⁵⁵ There is also an emerging environmentally-conscious international market made from a totally-chlorine free production process. The difficulty remains getting any company to purchase the required equipment to produce these products.

Here again, though, options exist for BC's provincial government. The first option should be to attempt to work with industry to aid them in becoming more profitable, in exchange for agreements to invest some of that profit in cost-effective and beneficial investments. When pulp prices are high, for example, the price for wood chips and pulp logs - inputs for making pulp - tend to spike as well. Part of this is because of increased demand, but many suspect that price gouging is also to blame. For example, during 1995's high price cycle, the cost of wood chips increased by an astounding 200%. 56 The government can use provisions within the Forest Act to set the range of acceptable fluctuations for chip prices. In exchange, the pulp companies should agree to invest a portion of profits made during good times in technologies for value-added paper products.

POLICY RECOMMENDATION: The provincial government should use the *Forest Act* to set the range of acceptable fluctuations in chip prices in exchange for an agreement from pulp producers to invest in paper making when pulp prices are high.

The fallback plan for a government facing corporate disinterest or resistance is to capture a portion of profits made by the industry at the top end of pulp price cycles on behalf of the public, and to use these profits to fund the needed investments. The pooled money can be used to offer no-interest loans to any company wanting to buy a papermaking machine. Depending on the funds available, the government could even enter into partnerships with pulp companies and facilitate the required purchase.

2.2 The trend towards eco-certification

The newest and, seemingly, most significant trend in BC's forest industry in the past year has been a move towards eco-certification. Hardly a month goes by without an announcement that another forestry operation has received an eco-certified stamp of approval. This is undoubtedly a positive development for the industry. Nonetheless, if the trend is an attempt by the industry to gain support from the environmental lobby with the least amount of effort, the investments might be made in vain.

The difficulty arises from the different types of certification that are available. The most ecologically-rigourous certification standard, and not surprisingly the one preferred by environmental advocates, is the Forest Stewardship Council (FSC), an internationally recognized label. The two labels that have been pursued the most in BC, however, are those from the International Standards Organization's environmental management system (ISO-14,000) and the Canadian Standards Association (CSA). It is possible that the forest industry is using the ISO and CSA standards as a stepping stone for achieving stricter eco-certification labels like FSC. If this is not the case, their efforts

are unlikely to result in cooperation from environmentalists, who have already convinced dozens of major U.S. companies – wood retailers like Home Depot and Lowe's and homebuilders like Kaufman & Broad and Centex Homes – to give preference to FSC-certified wood.⁵⁷

The BC government's role should be to support FSC certification, but only after the FSC's 10 principles have been fully developed and adopted, *and* if those principles show that an FSC certification will mean progressive, ecologically-sound forest practices. At the time of publication, the details of FSC's certification standards for BC⁵⁸ are being discussed and debated.

The provincial government can support ecocertification by providing incentives for companies to pursue environmental certification and by developing markets for that wood. When assigning tenure rights, the government should give priority to those bidders that have committed to becoming eco-certified or have certified other operations in the past (tenure reform is discussed more thoroughly in Section 2.4). Another policy "carrot" would be to reduce or eliminate the sales tax on eco-certified products. This would make the price of such products more competitive and give consumers an extra incentive to buy responsibly. Regulations that force BC's construction industry to use a minimum proportion of ecocertified wood would give producers of this wood an immediate and dependable market.

POLICY RECOMMENDATION: The provincial government should reduce or eliminate the sales tax on eco-certified wood products and require provincial wood purchasers like the province's construction industry to use a minimum percentage of eco-certified wood.

Finally, the government can help companies overcome the barriers to attaining certification. The first barrier is that logging companies might not have the knowledge or the capacity to become certified. The second is that value-added companies wanting to become eco-certified might not know or be able to access companies with certified wood. Both these barriers can be overcome

through government-sponsored workshops, conferences, and trade shows. People with expertise in environmental certification can instruct management and workers on how to meet criteria for an eco-certification label. Meanwhile, conferences and trade shows can put potential buyers of eco-certified wood in touch with suppliers. Another approach to overcoming this last hurdle is a webbased database with information on eco-certified suppliers.

POLICY RECOMMENDATION: The provincial government should provide resources (workshops, conferences, trade shows) to companies to help them become eco-certified, and to market and sell their eco-certified products.

2.3 Investment in closedloop pulp production

Like solid wood products, eco-certification in pulp will entail a "life cycle" or integrated approach. That is, if eco-certified fibre is used to produce pulp, the pulp may also be eco-certified. As with solid wood, the government can provide incentives for eco-certified pulp. Just as importantly, the BC government should be developing policies that help mills produce totally-chlorine-free (TCF) pulp and paper or make their operations closed-loop. Closed-loop essentially means that no effluent is discharged into neighboring water bodies, water consumption is decreased by an order of magnitude, and less mill sludge is produced. TCF production involves bleaching pulp using oxygen-based chemicals: either ozone or hydrogen peroxide. There are still toxicological risks with bleaching in this manner, but the elimination of chlorine in the operations means greater worker safety, a decrease in pulp mill toxicity, and represents a big step towards mills becoming closedloop.59

Due to a decrease in chemical costs, closed-loop mills are less expensive to operate than conventional mills.⁶⁰ The only reason it is not cost-effective for mills to retrofit is because of the in-

As with solid wood, the government can provide incentives for eco-certified pulp and help mills produce totally-chlorine-free (TCF) pulp and paper.

terest charges on the capital required to purchase closed-loop technology. Obviously, this is significant, but governments can help in this process by providing low- or zero-interest loans to mills wanting to make the investment. The mills will recuperate their investment and, in the long run, decrease their costs. However, the payback period will be more than a couple of years, so mills will have to be willing to look beyond a short-term horizon.

POLICY RECOMMENDATION: The provincial government should provide low- or zero-interest loans to pulp producers wanting to invest in closed-loop technology.

A New Brunswick company, Irving Pulp and Paper, recently made such an investment.⁶¹ Finland's forest industry has been tremendously progressive in this respect as well. In fact, though Finland was in a very similar position to BC in terms of markets, cost, and tree species, the industry there

CASE-IN-POINT: Finland's Environmental Strategy

The case of Finland pulp operations holds important lessons for British Columbia. Finland's pulp industry is the most environmentally friendly in the world. The industry there reacted quickly to environmental campaigns in Europe in the early 1990s and began producing totally chlorine free (TCF) paper.⁶² This also allowed them to move towards closed loop production. Thus, they have been able to increase their share of a European market demanding eco-certified pulp and paper products. The country also produces a lot of paper from its pulp, with high proportions of recycled content. And they've done this while relying mostly on second-growth forests – admittedly, much of their old-growth has been cut – and without increasing their annual cut.

Investments have also made them more efficient. Their mills, larger and faster than BC's, can turn fibre into pulp at a cheaper rate than most mills in this province.⁶³ Because of both reduced price and improved environmental performance, Finland has taken over some of BC's share of the European market. BC pulp industry executives, meanwhile, continue to insist that there is no market for TCF pulp and paper and do nothing to develop one.

The situation that Finland faced in the early 1990s bears some mention. At that time, Finland lost a major market for its pulp, the Soviet Union, when that country and its economy collapsed. Finland's costs were high at the time, with stringent environmental standards and a well-paid workforce. Despite the difficult times, the industry mounted an investment campaign that launched them to the top of the world's pulp industry. In the future, both BC and Finland will have trouble competing in pulp against new mills like Indonesia's brand new Riau mill, which relies on fast-growing plantation forests. For BC, the strategy has to be to move towards eco-certified operations and the production of more paper.

How did Finland reinvent itself in this way? Did government policy play a part? Well, not exactly. The cooperative relationship between government, unions, and the business community was a factor. But mostly, the Finnish industry realized the finite nature of its forests well before we did. They knew they had to get as much value from a finite resource as possible. The Finnish business community's greater commitment to social responsibility no doubt also played a part.

So what can the BC government do? As outlined in this report, entering into a cooperative relationship with pulp industry leaders, communities, and workers can no doubt help. What would likely make the biggest change, though, is the province's players coming to a common realization that what is required is an investment regime that makes up for the deficiencies of the past.

has been able to make great strides towards sociallyand environmentally-sustainable operations. (See Case-in-point: Finland's Environmental Strategy).

Eventually, if policy carrots fail, legislation mandating TCF or closed-loop production has to be implemented and enforced in BC. The Zero-AOX Law (mandating that no chlorinated substances be discharged from mills) will come into effect in 2002, but pulp mills will not be in compliance at that point. Extending that deadline would be a step backwards, but remains the only option for dealing with this problem.

In order to give mills an incentive to invest before the extended Zero-AOX deadline, the government can use a tax shift mechanism: taxing the emissions of chlorinated compounds from pulp mills and using the revenue to give tax credits for capital investments in oxygen-bleaching and closed-loop technologies. Mills would pay more for their licenses under the *Waste Management Act* (how much more would depend on their levels of emissions of chlorinated compounds), but all of the increased revenue would go back to mills wanting to purchase environmental technologies.

POLICY RECOMMENDATION: The provincial government should extend the deadline on the Zero-AOX Law (with a firm end date), but implement a tax shift policy that increases the cost of AOX emissions, and use the revenue to give tax credits to companies investing in compliance.

One of the reasons given by corporate managers for their mills' unwillingness to invest in complying with the Zero-AOX Law is that there is no market for TCF pulp. If this is indeed the case – it certainly needs to be investigated and confirmed – then the provincial government has a role to play in helping pulp producers develop those markets. The environmental community's success in convincing wood retailers to sell environmentally-friendly products shows they are natural allies in this endeavor. Together, the provincial government, pulp producers, and environmental groups involved in eco-forestry or toxic chemical campaigns should

invest money and effort in convincing paper producers to sell and market TCF paper.

2.4 Forest tenure reform

Much of BC's forest policy is determined through the tenure system, which governs access to BC's publicly-owned forested land. The way the province allocates tenure determines which companies will be logging our forests, where and how much they will be logging, and what rights and responsibilities those companies have with respect to the province - its people, its resources, and its ecology. We are fortunate that a vast majority, 96%, of our province belongs to the public (although much is claimed by First Nations, and thus, while ownership will remain "public", we will likely see a transition from the Crown to collective or shared aboriginal title). As such, our government has a responsibility to ensure that British Columbians benefit from any activities undertaken with this land and its resources.

This is the premise behind calls from progressive groups that our forestry tenure system be reformed. The economic, social, and environmental costs of BC's present forest industry need to be acknowledged and addressed, and no place seems more appropriate than with the tenure system.

2.4.1 Tying tenure to performance

The provincial government needs to be clear with forest companies about what the goals of forestry should be. These have been outlined above. First of all, companies who harvest our trees should be urged to invest sufficiently in their operations so that they are able to be innovative and productive. Part of this involves larger-scale investments that lead to resource efficiency gains, not just replacing machinery when it fails. Companies also need to invest in adding value to forest products or making wood available to those who want to. There has to be a willingness to invest in becoming more environmentally-friendly, through ecocertification. Finally, BC's corporations need to be more responsible to their workers and the public.

Due to a decrease in chemical costs, closed-loop mills are less expensive to operate than conventional mills. The way the province allocates tenure determines which companies will be logging our forests, where and how much they will be logging, and what rights and responsibilities they have.

According to the *Forest Act*, the government is entitled to demand that these objectives be met when assigning or renewing forest licenses.⁶⁴ Last year's Forest Policy Review recommended a mechanism for getting these assurances from industry. It suggests that the provincial government enter into discussions with industry, communities, and First Nations in order to develop a framework for Forest Stewardship Agreements.⁶⁵ The Agreements would include provisions for management practices, ways to monitor and audit those practices, plans for eco-certification, and provisions to increase value-added manufacturing.

POLICY RECOMMENDATION: The provincial government should develop Forest Stewardship Agreements by entering into discussions with industry, communities, and First Nations people.

Unfortunately, the current tenure system mainly assigns rights to timber extraction, with little regard for the responsibilities that should be associated with these rights. Forest companies have even obtained forest licenses by promising to make a needed investment in their operations. Canfor, for example, obtained a 20-year cutting license in the Fort St. John area by promising a \$32 million upgrade of their Taylor, BC sawmill. Three years later the investment still hasn't been made, but with no apparent consequences for Canfor.

It is good policy for the province to extract investment promises from forest companies in exchange for cutting rights. However, in order to ensure that the investment is actually made, companies should be required to post an investment bond before the license is delivered.

POLICY RECOMMENDATION: The provincial government should, when assigning forest licenses, require forest companies to post investment bonds to ensure that promised investments are made.

For companies who already have forestry licenses and refuse to acknowledge their responsibilities outlined above, one option is to use provisions already in place to remove their tenure.

2.4.2 Ways to remove tenure

There are at least three mechanisms that the provincial government can use to take away cutting rights from forestry companies. When a forest license expires, the Ministry of Forests and the company holding the license must renegotiate the terms of another license. Presently, licenses are often extended long before their expiry. Instead, the government should wait until the license expires or begin re-negotiating with forest companies beforehand. Part of the negotiated settlement should be getting assurances from the forest company with respect to its activities, as outlined above. Each situation will be different and the government needs to be flexible, basing its demands on the unique strengths and abilities of the forest company in question.

Another provision of the *Forest Act* is that the annual allowable cut (AAC) of a given tenure can be reduced by 5% when it is transferred or sold.⁶⁶ The Minister of Forests can then decide if and to whom to allocate that cut. In 1991, the Forest Resources Commission recommended increasing the tenure transfer "claw-back" to 50%.⁶⁷ This would give substantial leverage to the Ministry of Forests to negotiate with the new tenure holder and, if warranted, to change the direction of forestry at a greater pace.

The third mechanism involves mill closure. Under the *Forest Act* when a company closes a mill, the Minister of Forests can reduce the company's AAC that is associated with the mill.⁶⁸ No Minister to date has used this provision.⁶⁹ In fact, the recent closing of the Youboo mill was a result of the Ministry of Forests *removing* from Timber West's forestry license the condition that it operate this mill. TimberWest consequently had no downside risk to shutting down the mill and laying off its workers.

POLICY RECOMMENDATION: The provincial government should use provisions in the *Forest Act* to remove forest companies' tenure rights – during license expiry, tenure transfer, or mill closure – unless they are willing to make binding commitments to make needed investments in their operations.

2.4.3 Redistributing tenure

What to do with a portion of tenure once it has been removed from a forest company? One possibility is to redistribute it to community forest projects, usually smaller enterprises controlled at the local or regional level or by local First Nations. The benefits of doing so include: retaining the social and economic benefits of forestry at the local level; including the interests of local citizens in management decisions; and incorporating ecological values into the way forestry is conducted.⁷⁰

In 1998, in response to a request from the Ministry of Forests, 27 proposals for community forest projects were submitted. These proposals – requiring a forest management plan, a business plan, and evidence of public support – came from municipalities, regional districts, First Nations bands, corporations, and co-operatives. Seven were approved at that time. Others can be revisited as options for handing over tenure in the future. The government should also solicit more proposals to be considered as tenure becomes available.

The difficulty with community forestry arises with respect to forestry workers. A move towards community forestry can entail replacing well-paying, unionized jobs with non-unionized work. This has resulted in forestry unions viewing community tenures with suspicion. However, this does not have to be so. The Ministry of Forests should include in the criteria for application for a community forest license the retention of unionized workers, both in the forests and at local mills.

Another alternative to community forestry would be to retire the tenure in order to protect ecologically important areas or otherwise decrease the impact that forestry has on biodiversity. However, this option cannot be entered into lightly, given its economic and social impact. At the very least, this option must include, at the front end, a comprehensive, fair, and generous just transition program for workers who will lose their jobs. The role of funding this program could be assigned to FRBC.

POLICY RECOMMENDATION: The provincial government should redistribute tenure to

community forest projects that have a sound business plan, will put a priority on sustainable forestry, and are willing to use unionized workers in their operations.

2.4.4 First Nations resource allocation

A potential source of investment in forestry (and other resource sectors such as fisheries) comes from First Nations bands. Aboriginal land claims agreements will provide First Nations people in many areas of the province with both access to resources and large amounts of capital. For example, the Nisga'a Treaty granted to the Nisga'a rights to harvest shellfish, access to forestry resources, and a \$190 million Settlement Trust. These resources can be used by First Nations along with new powers of self-government to develop community-based resource management that meets the interest of their people.

Beyond negotiating fairly and expediently with First Nations people, the provincial government has a role to play in the economic development of First Nations communities dependent on BC's natural resources. First of all, interim agreements are vital to protecting land and resources so that they are not depleted by the time a treaty is completed. Second, the provincial government must aid First Nations communities in acquiring the capacity to take over the management of a forest license or fishery. Many First Nations have a long history of harvesting and managing fisheries resources, but Aboriginal expertise in forestry management is less common. There are three areas where the province can build capacity in forest management for First Nations bands that are interested: training in how to set up and execute forestry plans, aid with developing value-added wood products, and help in marketing their products to domestic and foreign consumers.

POLICY RECOMMENDATION: The provincial government should negotiate interim agreements with First Nations people and, as part of treaty settlements, provide them with resources to develop forestry plans and market ecologically-friendly forest products.

A move towards community forestry can entail replacing well-paying, unionized jobs with non-unionized work. This has resulted in forestry unions viewing community tenures with suspicion.

SECTION

3 Fisheries

The corporate abandonment of fishing communities by corporations opens up opportunities for community members, whose interests are very different from those of multinationals like Weston or Canfisco.

BC'S FISHERIES, LIKE FORESTRY, ARE A potentially renewable resource, depending on how we manage them. The industry, therefore, has some issues that are similar to those in forestry. There is a limited capacity for value-added. Ecocertification for fresh, wild fish should be a management and marketing strategy. And there are real possibilities for ensuring this resource is more locally controlled. Policy alternatives can address all these issues. However, fisheries differ from all other natural resources in that they are the last, true common property resource.

The recent trend of moving towards a globalized model of investment has meant that BC's fishing industry is increasingly dependent on commodity prices, since the focus has been on the production of cheap fish products for world markets. Instead, the investment model that is required is a model of public investment to diversify regional economies, make independent fishermen viable, and develop small, local fish-based businesses.

3.1 Adding value to fishing communities

There are ways to strengthen the economic situation of communities dependent on fisheries resources. The most effective way to do this is by making public investments that will invigorate small business enterprises, diversifying economies dependent on fishing, and delegating some responsibility for fisheries management to regional and local bodies.

3.1.1 Public investment in community-based fisheries

A strong case can be made for using public funds to develop or stabilize isolated fishing economies, some of which have been deserted by the larger fishing companies. A classic example involves Canfisco's purchase of Weston. Because Canfisco was interested in parts of Weston rather than the company as a whole, it wrote off the unloading station in Part Hardy, eliminating precious jobs in the northern Vancouver Island community.

The corporate abandonment of fishing communities by corporations opens up opportunities for community members, whose interests are very different from those of multinationals like Weston or Canfisco. Rather than returns, they would be content with a stable local economy and jobs for their kids. There are three ways the provincial government can play a role in allowing individuals, co-operatives, or communities to continue their traditional activities. The first is to provide seed money for people who want to develop or take over fishrelated economic activities, like the unloading station in Port Hardy. Current programs, like the Community Economic Adjustment Plan, provide no access to capital or lines-of-credit. Therefore, those seeing a small business opportunity, even with a well-developed plan, cannot take advantage of it.

Where it makes sense, the government can also invest in infrastructure programs that can contribute to a successful community-based business opportunity. For example, the BC government recently assessed the feasibility of building a cold storage facility in various BC communities. This is an example of a public investment that can fill a need for existing fishermen and provide opportunities for others.

Finally, the government should provide business training in order to allow people with good ideas - but not a lot of experience - to develop skills so they can identify and capitalize on opportunities in the market. BC technical colleges can be provided with funding to teach specific courses on fish-related business skills. Programs should also be developed for conducting this education and training in communities where there are no colleges.

POLICY RECOMMENDATION: The provincial government should set up a public investment program specific to fishing communities to fund the start-up of small businesses, build infrastructure where it is needed, and provide business skills to those interested.

3.1.2 Diversifying economies

There are other ways that fisheries-dependent communities can diversify their economies in order to build social and economic stability. The first is by using the principles of community economic development. Since this strategy is not specific to fishing towns and villages, it is discussed in Section 5.3.

Another approach is through value-added strategies, including eco-certification, in the fishing industry. The provincial government should give fishermen and others in their communities the resources to both develop new fish products and

to market them to local, domestic, and interna- As fisheries tional clients. One alternative in this respect is wellhandled frozen fish that can pass the requirements the world and for eco-certification. As in forestry, the certifica- farmed fish tion process has as much to do with marketing as become more and it does with sustainability. The BC salmon industry is pressing to get their fisheries certified with there will no the Marine Stewardship Council, mainly because Alaska has certified its salmon industry. The BC increasing sockeye, chum, and pink fisheries will likely receive certification, but the chinook and coho industries are doubtful.

Regardless, there are opportunities for opening up markets for wild salmon. As fisheries collapse around the world and farmed fish become more and more prevalent, there will no doubt be an increasing demand for wild salmon and other fish caught in sustainable ways. During the salmon season, the potential exists for the live sale of fish to restaurants wanting the ultimate in freshness. The reason that farmed salmon has gained such a market presence, however, is that restaurants can provide these year-round. An alternative that has not been fully realized is the frozen-at-sea wild salmon that can provide year-round high-quality salmon to restaurant tables. Again, the provincial government - through Fisheries Renewal BC or other mechanisms - should cooperate with local producers to market wild fish products originating in BC's oceans and rivers.

Another mechanism for diversification is to allow fishermen to hold licenses in more than one fishery. This will secure incomes received by fishermen of a given community, provide employment on a more year-round basis, and stabilize local economies. However, adopting sustainable fisheries management requires that we not fish "down the food web." The Department of Fisheries and Oceans (DFO) must resist the temptation to develop fisheries for species that serve as food for collapse around more prevalent, doubt be an demand for wild salmon and other fish caught in sustainable ways. other commercially viable fish, no matter what the short-term economic benefit might be. An ecosystem-based approach must be used in order to preserve all species and the overall fishing industry.

Fisheries Renewal BC (FsRBC) funds many of the above strategies (see Case-in-point: Fisheries Renewal BC). The money to operate FsRBC originally came from the budget of Forest Renewal BC and BC Hydro. The funds going to FRBC have substantially declined in the last three years, due to decreases in provincial stumpage rates. FsRBC has consequently had to rely on funding from the province's general revenue. In order to continue and potentially even expand the FsRBC program, a system of royalties should be developed for all

CASE-IN-POINT: Fisheries Renewal BC

Fisheries Renewal BC is a Crown Corporation created in 1997 by an act of the Legislature to attempt to revitalize BC's fish resources. Its mandate is to fund programs in two main areas. The Salmonid Renewal Program (SRP) funds activities that produce more fish – through habitat work like watershed monitoring and habitat restoration and enhancement – and foster sustainable employment.⁷³ The Development and Diversification (D&D) program funds the development of value-added products, new fisheries opportunities, and the improvement of selective harvesting.⁷⁴

Originally, FsRBC's \$10 million budget was taken from FRBC (\$22.7 million over three years) and BC Hydro (\$7 million over two years) revenue. Given that many of FsRBC's activities – especially the Salmonid Renewal Program – were linked to damage from forestry and hydroelectric generation, this was an appropriate relationship. Unfortunately, funding for the program is now taken exclusively from the province's general revenue stream.

An audit of the SRP found that the quality of the work was "sufficiently high to expect that the Program is contributing to FsRBC's objective." However, it is difficult to evaluate in the short term whether the goal of the project – producing "more fish" – is being met. Enhancement programs should be seen as a stopgap measure but, like food banks for the poor, have become institutionalized. The long-term goal should be to move away from programs such as fish hatcheries and productivity enhancement through fertilization. Instead, as mentioned with respect to the FRBC program, the priority should be to stop stream habitat degradation by better management of destructive activities in the first place.

An Auditor General's report on the D&D program is expected this year, and will give the public an indication of how effectively the program has been run. The strategies of the program, however, can be commented upon.

Increased funding for value-added activities in isolated areas of the BC coast is much needed. An emphasis on conservation in fisheries is warranted, but the effect on rural and remote communities has been considerable. For example, there used to be a dozen canneries in Rivers Inlet alone, but there are now only three or four on the entire coast. The strategy must be to develop new fisheries and have the fish landed in places other than Vancouver and Prince Rupert. Partly, this can be accomplished through changes to the licensing system, but coastal communities also need help developing value-added industries and marketing them to the rest of the province and abroad. Research that improves selective harvesting and decreases by-catch would also be useful.

More info: www.fishrenewal.gov.bc.ca

species of commercially caught fish to compensate British Columbians for use of this public resource. The system should be a progressive one, increasing with the number of landed fish. Fish landed in remote fishing communities and by owner-operators should be subject to an abated charge.

POLICY RECOMMENDATION: The provincial government should work with the federal government to implement a progressive royalties system in all fisheries, with the revenue being used to diversify fishing economies and develop and market locally-based, sustainable fish products.

3.1.3 Devolving power from the DFO and fishing corporations

There is a role for a federal regulator in the West Coast fishery. The resource itself is a federal Crown resource and so it is proper and just to have a federal body, the DFO, governing the resource in the best interest of all Canadians. There are practical reasons as well, namely that the Pacific fisheries include migratory species that cross international boundaries.⁷⁷

However, the DFO should work in cooperation with communities to set up regional management boards and devolve some of its management responsibilities to these boards. There are compelling reasons to do this. One is that the diversity of fish species, needs, and resources in various regions requires more than DFO's historical one-size-fits-all approach. Also, communities are willing to commit resources to managing fisheries and ensure equitable resource sharing when they are given decision-making responsibility. Successfully managed fisheries often result from this type of approach.

POLICY RECOMMENDATION: The provincial government should work with the federal government to establish regional management boards for all BC fisheries.

Another way to ensure sustainable fisheries and economic viability for fishing communities is to reduce corporate concentration and redistribute access to the fisheries to communities, both Native and non-Native. ⁸⁰ In the salmon industry, for example, license redistribution that favours trollers and gillnetters must occur. An experienced fisherman can operate these smaller boats in a much more selective manner than the massive seiners can, thus decreasing the by-catch of species that are low in numbers. Seiners also employ only two to three times the fishermen per boat that gillnetters or trollers do, but catch fish in far greater proportions. ⁸¹

The way to redistribute tenure is through the licensing system. The license system must first be made more transparent by having a registry of licenses that documents license holders. In this way, knowledge about who holds fishing licenses and what communities they belong to would be accessible to the general public.82 In addition, licenses should only be made available to owner-operators. This removes the ability, now present in the Pacific salmon fishery, for "armchair" fishermen to purchase licenses and lease them out to real fishermen. It also removes the ability of licenses to become concentrated in the hands of those who can afford to buy many, namely the large fishing corporations. License stacking – the ability of one fisherman to own more than one fishing license for a given fishery – should be discontinued for the same reason. Finally, licenses should be restricted from being sold outside of a given region. Together, these provisions will guarantee that both jobs and revenues from a given, local fishery stay in the area.

POLICY RECOMMENDATION: The federal government should give priority to small boat, independent fishermen by removing license leasing and license stacking, and restricting fishing licenses to localized regions.

Adopting sustainable fisheries management requires that we not fish "down the food web." In order to protect our water and fish resources, all BC streams must have an adequate buffer zone, whether fishbearing or not.

The sport fishery also needs to be reformed to avoid licenses becoming concentrated in the hands of a few local operators. The "concentration of access and dislocation of decision-making" is becoming just as apparent in sport fishing as it is in the commercial industry.⁸³ Operations like Oak Bay Marine – which holds over 25% of the catch allocated to sport fishing – continue to grow in size and influence, squeezing out local lodges. Fish can be caught around the Queen Charlotte Islands, for example, and the economic benefits sail away on large ships like Oak Bay's *Canadian Princess*.

3.2 Environmental investments to preserve fish

Fishing is heavily impacted by other activities within the province. Mitigating the impact of these activities has to be a major thrust in preserving, and potentially even reviving and expanding, the fishing industry in BC. The provincial government can provoke investments that will lead to a decrease in the impact on fisheries resources. In some cases this will require public investment from governments, while in other cases, it will mean implementing policies that require investment from industry.

There are ways to reform forestry so that it does not have such a large impact. The Forest Practices Code regulates the size of the buffer zone that must be left around larger streams. Unfortunately, smaller streams, even those that are fish-bearing, require no buffer zone. Larger streams that have no fish, but that flow into streams that do, also have no mandated buffer. The largest buffer required under the Forest Practices Code is 50 metres. By comparison, all forestry conducted on public lands in the U.S. Pacific Northwest must leave a 90-metre no-logging strip. ⁸⁴ In order to protect our water and fish resources, all BC streams must have an adequate buffer zone, whether fish-bearing or not.

Another impact of forestry on water resources is with respect to landslides from inappropriate logging and road building on steep slopes. A 1997 audit revealed that clear-cutting was the method of logging used on 97% of slopes with moderate or high likelihood of landslides. St What is required are enforceable regulations to protect landslide-prone areas from clear-cut logging and road-building activities. Finally, as mentioned earlier, pulp mills must be urged towards TCF or closed-loop production by combining incentives with a future ban on chlorine-based bleaches.

POLICY RECOMMENDATION: The provincial government should strengthen the Forest Practices Code to increase the buffer left around streams and eliminate logging on steep, unstable slopes.

Conventional farming also leads to water pollution. The Fraser River, the most important river for Pacific salmon, has elevated concentrations of many pesticides that are used on agricultural land in the Fraser's watershed. Cattle manure also contributes to poor water quality in the form of bacteria, including the infamous *E. coli*. A progressive and cost-effective way of dealing with this is to pay farmers to leave buffers around their farms, which decreases the amount of pesticides, soil, or manure that run off of agricultural land into streams, rivers, and lakes. Fraser

POLICY RECOMMENDATION: The provincial government should work with farmers to leave buffers between agricultural land and water bodies.

Significant impacts occur at the urban level as well. Sewage is a major contributor to water pollution, because of both the human excrement and the industrial contaminants that it contains. Victoria still discharges raw sewage directly into the ocean, and many of the Capital Regional District's sewage treatment plants violate BC's Waste Management Act. 88 Vancouver and Victoria are the only

two BC municipalities without secondary treatment. An investment in sewage treatment is very much needed in the two most populated urban areas in the province. Both regional districts have been taken to court for violating provincial or federal legislation, but every time the case has been taken over and then dropped by the BC Attorney General's office.⁸⁹

The province should work with municipalities and regional districts to invest in better infrastructure for sewage treatment. A lack of cooperation from local governments should lead to penalties from the province. The federal government, with its large surplus, should also be urged to contribute to a much-needed infrastructure program, one that will solve the root of the pollution problem and create employment.

POLICY RECOMMENDATION: The provincial government should work with Vancouver and Victoria regional districts and the federal government to develop and implement an investment plan for secondary sewage treatment.

The last industrial impact to be considered here is from salmon fish farming. This industry is unsustainable on many levels. A peer-reviewed article in *Nature* last year documented the reasons: habitat destruction, pollution, the invasion of nonnative species, and the reliance on increasing amounts of wild fish for feed. Canada's Auditor General agreed, stating that the Department of Fisheries and Oceans is not meeting its obligation to protect wild Pacific salmon stocks and habitat from the effects of salmon farming. These reports and others directly contradict the industry's argument that salmon farming is helping the conservation of wild salmon by alleviating fishing pressure.

The province has had a moratorium on new salmon farms but has hinted that this will be lifted in the near future. Despite the moratorium, fish farm production has tripled in the last decade through expansion of existing farms and the transfer of licenses from non-active sites to new ones.92 Given the evidence, a different direction is required. A ban should be placed on open net fish farms, to come into effect in 2006. In the interim, the government should encourage the development of closed-containment farms by putting a tax shift into place. This would increase the costs of obtaining open net fish farm licenses from the Ministry of Agriculture and Fisheries, with the revenue used to give tax credits for the purchase of closed pen infrastructure.

POLICY RECOMMENDATION: The provincial government should mandate a future ban on open net fish farms and – in the interim – implement a tax shift policy that increases fees for open pen licenses and grants tax credits for the purchase of closed containment technology.

All the above suggestions for protecting water and fish are ways of putting the onus on those responsible for pollution and habitat destruction. The province is in essence giving subsidies to industries and municipalities by not making them responsible for the true costs of their activities. These costs – for treating drinking water, fisheries closures due to high levels of fecal coliform, loss of jobs due to habitat destruction of commercially viable fish species, and the unquantifiable ecological costs – are instead borne primarily by fishermen and coastal communities. Investment in the right places can lead to the same level of economic activity but without the environmental impact.

The province is in essence giving subsidies to industries and municipalities by not making them responsible for the true costs of their activities.

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SECTION

4 BC's nonrenewable industries: mining, oil, and gas

One way for a provincial government to transform non-renewable resource revenues into renewable fiscal resources is by creating a permanent trust fund.

NON-RENEWABLE RESOURCES – MINING and oil and gas production – must be managed in a fundamentally different manner, taking into account the reality that every operation will at some point be shut down. Each project must be seen as complete, not when the oil well or mine closes, but when the community has successfully adjusted to that closure. Essentially, the idea is to achieve economic sustainability from resources that are inherently unsustainable. In the case of mining there should be a more concerted effort to capitalize on the durability of metals throughout their lifecycle – minimizing waste and maximizing economic gain and environmental benefits from re-use and recycling.

4.1 A trust fund approach

One way for a provincial government to transform non-renewable resource revenues into renewable fiscal resources is by creating a permanent trust fund. A portion of resource royalties and taxes is placed into a trust fund instead of into the province's general operating fund. The idea is to then

use the fund for capital investment in economic development or attaining social and environmental goals. Various rationales exist for this approach: saving a portion of common property resources for future generations, moderating boom-and-bust cycles, stimulating economic development and diversification, and mitigating social and environmental costs.⁹³ The goals of the trust fund will determine how funds will be collected, what investments are made, how it is managed, and how the dividends are spent.

Revenue going to the fund can be a fixed percentage of resource royalties. However, the price of – and the revenues generated from – minerals, coal, oil, and gas fluctuate greatly. One way to stabilize the resource royalties going to provincial coffers would be to have a sliding scale, i.e. a higher percentage of resource royalties would go to the fund when prices are high and a lower percentage when prices are low. That way, government would lose less revenue when they need it most, that is, when British Columbians most need government

spending to see them through a recession. Revenues going to the trust fund can also be supplemented by placing an excess profits tax on oil and gas companies. When these companies are making windfall profits, as they did in 2000 and surely will again in 2001, a portion of the tax can be placed in the trust fund, with the rest being used to ease the burden for low-income British Columbians feeling the pinch of increased energy prices.

The purpose of the trust fund will also determine how those funds are invested. The goal might be to "grow" the fund as much as possible, by investing in stocks and bonds, often in other jurisdictions. This has been the Alaska Permanent Fund Corporation's approach (see Case-in-point: Two Approaches to Trust Funds). Given the state of investment in BC, however, the preferred option would instead be to keep the money in the province by investing in both low-yielding economic development projects and higher-growth shares in corporations that operate in BC.

Interest on these investments should be used for social and environmental goals. The first priority is to aid the transition of workers and communities displaced in the event of a mine or well closure. A just transition program for workers would guarantee income for at least three years so that workers could enter comprehensive and meaningful retraining programs, go back to school, or bridge their salary to retirement. Communities could also apply to receive emergency funds for economic transition projects or ecological restoration programs.

A management body that is approved by the provincial legislature should make decisions about what to invest in and how to use the accumulated interest. Members of the management team should include one representative from each of the relevant provincial ministries and a diversity of peo-

ple from industry, labour, and public interest groups. The management team would not be stakeholders – representatives of their various constituencies – but would be expected to bring their accumulated knowledge and experience in those arenas to the table.

POLICY RECOMMENDATION: The provincial government should establish a trust fund by pooling a portion of resource royalties and taxes from oil, gas, coal and other mining operations; the capital should be used for economic development projects and retraining within the province.

4.2 Community transition bonds

Another way of capturing the wealth from non-renewable resources is to use community transition bonds. They appear similar to trust funds but have important differences in both their *raison d'être* and the way they are managed. The sole purpose of the community transition bond is to deal with the socio-economic impacts of resource extraction, especially at the end of the project. In this case, the bonds would be collected, administered, and distributed regionally, not provincewide, with the revenues coming from the mining or oil and gas company.

The community transition bond would work much like the environmental reclamation bond currently in use. The environmental reclamation bond acknowledges that resource extraction, like oil drilling and mining, has environmental effects for which resource companies must be held accountable. It can be argued that resource companies should also be responsible for the social impacts of their activities, including the social upheaval created when a town loses a significant portion of its economic base.

Non-renewable resources must be managed in a fundamentally different manner, taking into account the reality that every operation will at some point be shut down.

A company or companies wanting to develop a reserve should, therefore, have to provide a closure plan that takes into account the workers and community in the same way that BC's *Mines Act* requires reclamation planning. The company should also post a bond and have a portion of their revenues from the project added to this sum. The full amount would be placed in secure but low-yielding term deposits. When the mine, gas field or oil well closes, the money is to be used for just transition for the workers.

Because this approach is more communitybased, and smaller in scope, than the trust fund model, management of the fund would be done through the relevant government ministries (formerly, the Ministry of Mines and Energy and the Ministry of Community Development). These Ministries would be required to work closely with community members to ensure that the priorities and needs of the local people are considered.

POLICY RECOMMENDATION: The provincial government should amend the *Mines Act* so that companies developing a non-renewable resource must post a community transition bond, to be used by the community and workers for transition once the project is completed.

CASE-IN-POINT: Two Approaches to Trust Funds

Both Alaska and Alberta created trust funds in 1976 – the Permanent Fund Corporation and the Alberta Heritage Savings Trust Fund respectively – to deal with a large influx of revenues generated from high oil and gas prices. Alaska deposited 25% of oil and gas royalties into the fund while Alberta deposited a decreasing percentage: 30% in the first 7 years, 15% for the next 4 years, then no further revenue since 1987. Alberta's strategy changed over the years because the fund's management could be modified through legislative vote, whereas Alaska's was written into its constitution and could be changed only by referendum.

The investment philosophy of the two funds was also different. Alaska was interested in growth, and so investment was made in stocks, bonds, and even real estate, often outside Alaska. Alberta, interested in economic development, has invested much of the fund's capital in its Crown corporations; stocks, bonds, and loans to other provinces; and infrastructure projects within the province.

The different paths taken by the two funds resulted in not-so-different outcomes. Alberta's fund received higher revenue in its first decade due to greater oil and gas production, but since 1987 inflation has eaten away at the real value of the principal, leaving the fund with C\$12 billion. Alaska's slow and steady strategy, combined with an emphasis on growth has meant that Alaska's fund is now worth somewhat more: U.S.\$16 billion. However, the economic activity created by Alberta's domestic investment philosophy has resulted in benefits that are greater than the capital in the fund alone.

Revenue from the funds is treated differently by the two jurisdictions as well. Alaska pays out about half its revenue in dividends, with each Alaska resident receiving between \$300 and \$1000 per year. Alberta chose a collective approach, with trust fund income going towards the province's general revenue. However, given that the philosophy behind these trust funds is to produce sustainable economic returns from a non-renewable resource, BC should consider a more equitable outlook; that is, collectively using the returns on investment to mitigate the social and environmental costs of oil and gas development.

More info: www.northamericaninstitute.org/naminews/issue18/pretes.htm

In Wisconsin, the environmental reclamation bond and the community transition bond have been combined into one fund (see Case-in-point: Wisconsin's Investment and Local Impact Fund).

4.3 Value-added in minerals: The recycling of minerals

Mineral resources have a critical quality not found in living resources like trees and fish: they don't degrade. Both fish and trees have the advantage of being able to regenerate themselves, but lose out when compared to the durability of metals. Thus, pulp and paper can only be recycled so many times before their fibres become too short to be useful. Fish products can obviously be used only once. But minerals are forever. This is the quality that economies such as British Columbia's need to exploit in order to make up for the non-renewable nature of minerals.

One way to visualize the lost opportunities with respect to mineral resources is to picture its "chain of custody", from mining to processing (smelting or refining) to use in final products to landfill. Too often, this is a straight line. This emphasis on virgin mineral resources over recycled content is evident in Canada's Minerals and Metal Policy, which states that "the pace in growth in demand dictates that virgin materials will remain the primary source of mineral and metal commodities."98 In other words, the federal government does not appear to be willing to engage market forces to help direct investment towards sustainable use of metals. Such an initiative would reduce waste outputs as well as energy and water inputs and would realize greater benefits from an aggressive 'mineral efficiency' approach to the development and use of our metal resources.

4.3.1 Social and environmental benefits

Thankfully, the provinces have authority over the majority of mining policy decisions, including conservation and management. The BC government should use that power to increase incentives for closed-loop material flows. There are two compelling reasons to do this. The first are the tremendous job opportunities that exist in recycling. By capturing the waste stream before it winds up as landfill, a valuable resource becomes available to those who want to employ workers and use it as an input for manufactured goods.

The second opportunity is environmental. The primary environmental damage from the minerals industry occurs while getting it out of the ground. Damada's mining industry creates 650 million tonnes of waste per year, more than 20 times the waste created by households, industries, commercial establishments, and institutions combined. Meanwhile, the grade of ore continues to decline, meaning that for every tonne of mineral extracted, increasing amounts of waste are generated and increasing disturbance to the land occurs. Taken together, mining and smelting use as much as 10% of the world's energy.

Eventually, the economics of this situation will dictate a shift to readily available recycled materials over minerals buried deep in the ground. The reason it hasn't happened already is because mineral extraction is a subsidized activity. In fact, in 1996, the federal government *increased* tax incentives to the mining industry. Not to be outdone, the BC government introduced an exploration tax credit in 1998 and extended for ten years an existing subsidy for mine development. On top of that, it will cost Canadian governments an estimated \$6 billion to properly clean up abandoned mine sites.

One way to visualize the lost opportunities with respect to mineral resources is to picture its "chain of custody."
Too often, this is a straight line.

4.3.2 Policy mechanisms

What we need is not a ban on mining but an increased reliance on reusing and recycling minerals that have already been mined. This can be attained through policy mechanisms that give incentives for using recycled materials, increase the efficiency

of material processing and use, and that make companies responsible for the full life-cycle of their products.

Subsidies to mining companies for maximizing new extraction should be gradually shifted or simply decreased to offset the unfair competition

CASE-IN-POINT: Wisconsin's Investment and Local Impact Fund

In 1977, while Wisconsin was revising its mining laws, the state recognized that there were local impacts to mine development. Its Legislature subsequently passed two laws in order to raise capital to be used to address the "social, educational, environmental, and economic impacts" of mineral mining. The first was the *Net Proceeds Tax*, which allowed the state to collect both a property tax on the land being used and a progressive corporate income tax that increased from 3% to 15% of the mining company's profits. This tax is in addition to other corporate taxes. The mining company also pays a "Notice of Intent" fee and a one-time "Construction Period Payment" to each municipality, county, and First Nations community that has the ore body within its jurisdiction.

The Legislature also created the *Mining Investment and Local Impact Fund* to receive the revenue from the *Net Proceeds Tax*. The Fund Board was given the task of distributing the funds within the region that the taxes were collected. The Board has two *ex officio* members, the Secretary of Commerce and the Secretary of Revenue. The other nine members – chosen from locally elected officials and the general public, including a First Nations person – are appointed by the Governor of Wisconsin.

The Board collected and disbursed approximately \$4 million in the last two-year period. Applications are made by, and funding is provided to, municipalities and counties alone. Local governments are, therefore, expected to act in the public interest. This is one of the weaknesses of the Local Impact Fund. It assumes that locally elected bodies understand how all community members will be affected, and know what the appropriate response should be. It does not allow for other interest groups that are affected by the mining activity to access funds for purposes that they see as important. These include labour unions that could use revenue for retraining and educational purposes or community groups interested in an environmental monitoring or clean-up program.

Highlighting this weakness are the programs that are eligible for receiving funding. Four of the five programs allocate funds to local governments for costs they incur – the cost of negotiating agreements with the mining company, the cost of disruption caused by construction of the mine, and infrastructure costs like roads and signage. The fifth category, called discretionary funding, is where we find social and environmental activities like job placement services and minimizing the environmental impacts of mining.

Notwithstanding the above weaknesses, the overall goals of this type of program are praiseworthy. It would not be difficult to modify a progressive policy such as the Local Impact Fund so that it more fully addresses the social and environmental realities in a British Columbia context.

More info: www.dor.state.wi.us/ra/bie97-99.html

faced by the recycled materials sector. The provincial government should instead give incentives for the re-manufacturing and use of recycled materials. The provincial government can also work with, and provide resources to, the Union of BC Municipalities to implement programs that increase recycling rates.

Another option is to shift the subsidies that mining companies receive so they are not based on production levels but rather on the efficiency with which they extract and use mining resources. By giving incentives to mining companies to develop and purchase eco-efficient technology, the extent of environmental degradation will decrease per mineral extracted. The same is true for companies that produce and design products with those mineral resources. The decrease in minerals "leaking out of the system" will create jobs at every step.

POLICY RECOMMENDATION: The provincial government should shift subsidies in mining to emphasize recycling materials and resource efficiency.

The provincial government should also build on the European model of requiring mandatory product stewardship programs. This would require companies that produce goods from recyclable materials to be responsible for the product for its entire life cycle. Companies – especially ones that produce large durable goods such as appliances or automobiles - would be required to have facilities where people could bring their products when they are finished with them. This would replace their inappropriate disposal with the re-use of its component materials. It would also encourage manufacturers to produce goods that have fewer parts that can easily be dismantled, and recycled or reused. To be successful, this type of program would most likely have to be implemented at the federal level. That in no way takes away the province's responsibility to encourage the Canadian government and to cooperate with them to develop product stewardship programs.

POLICY RECOMMENDATION: The provincial government should work with the federal government and industry to establish product stewardship programs, making companies responsible for their products over their whole life-cycle.

Finally, in order to level the playing field for renewable and non-renewable resources, sooner or later, the mineral tenure system will need to be addressed. Under the 'free entry' tenure system (one of BC's oldest resource laws dating back to the 1800s), mining companies have a right to stake their claim on public land and the government has few options to refuse them the right to mine. 104 In BC, the Mining Rights Amendment Act gives preferred access rights to mineral exploration over all other land uses. If we are serious about investing in sustainability and long-term human and economic health throughout BC, the "highest" use of the land must be more fully considered in all cases. Certainly, there is land for which mining might be the activity that brings the greatest social good to the province, but there are situations where other activities would produce greater social benefits, like employment with less risk to ecosystem integrity. A fair tenure system that does not prejudice other land users is a critical component of this kind of approach.

POLICY RECOMMENDATION: The provincial government should amend the *Mining Rights*Amendment Act so that all activities, including mining, are considered on Crown land in order to choose the "highest" use for each parcel of land.

If we are serious about investing in sustainability and long-term human and economic health throughout BC, the "highest" use of the land must be more fully considered in all cases.

5 The big picture: overall investment solutions

These alternatives more fully acknowledge a role for public investment where private investments have failed to materialize.

THE PREVIOUS OPTIONS FOR INCREASING investment, employment, and environmental protection focused on specific sectors. There are clearly many policy alternatives that are sector-specific, but there are also many initiatives with a wider scope, and that move the entire province ahead in terms of how we think about and deal with investment issues in the resource sectors.

The following policy alternatives also broaden the investment strategy so that it is closer to the comprehensive approach written about at the outset of this report. These alternatives more fully acknowledge a role for public investment where private investments have failed to materialize. They consider investments in social areas such as economic development and worker training. And they include a role for different societal actors – communities, non-profits, workers, and ordinary British Columbians – in contributing to investment in our resource sector.

5.1 Understanding investment and planning for re-investment

The first step in moving BC towards an effective investment strategy is for government, industry, and the public to acknowledge that 1) there is a problem with a lack of real investment in the province, 2) detailed analyses of investment spending are required, and 3) an action plan can and should be implemented. One way to accomplish these goals is for the province to form an Economic Council for the Resource Sector.

The Council would be a body of 15 to 20 representatives from industry, labour, First Nations, and the non-profit sector. Clearly, these different interests would not necessarily agree on matters of economic policy, but negotiation-type discussions could eventually lead towards consensus. Since the Council would have no decision-making power, the provincial cabinet could appoint the Council's representatives based on their knowledge and understanding of resource issues, including economics - industrial strategy, investment, and economic development. The Council would, twice a year, produce a report that evaluated the present state of investment and where under-investment problems exist. They would also put forward strategies for meeting the challenges they outline and an evaluation of the costs and benefits of those initiatives. The provincial government would be required to address the issues in the Economic Council's report with a report of their own. The government's report would include details about what initiatives would be acted upon and when, which will not be implemented and why, and a progress report on the strategies that have been implemented in the past. This feedback loop between government and the Council - essentially an assurance that recommendations to government were seriously considered - would ensure that participation by private sector interests would be greater than past endeavors of a similar nature.

POLICY RECOMMENDATION: The provincial government should form an Economic Council for the Resource Sector in order to study BC's resource sector and make recommendations on industrial strategy and economic development.

5.2 A Provincial Resource Investment Bank

In the same way that Forest Renewal BC replaced some of the functions that should have been undertaken by the forestry companies themselves, the idea behind an investment bank is to make investments that resource-based companies of all stripes are not presently making. A Resource Investment Bank could collect money from various sources — much of it from a portion of taxes and rents in the resource sector — and finance muchneeded projects. Some of these would be projects identified by the Economic Council, but the funds would all be allocated on a fair and transparent basis.

5.2.1 Funding the Bank

A Resource Investment Bank could be capitalized from a variety of sources. Forestry companies would pay an incremental fee on the timber they cut, a "super stumpage" rate that would be based on an index of forest product prices. The increased stumpage would be small enough to only partially replace the stumpage decreases of 1998, and would be largest when the forestry companies were riding the wave of high pulp and lumber prices.

A second source of finance could be a tax on substances that are a concern due to their toxic nature. Highly toxic chlorinated organic compounds such as dioxins and furans would fit into this category. So would pesticides and chemical fertilizers. A tax on these substances is justifiable when considering the full cost of using or discharging them. It would also encourage industry to invest in less polluting technologies and for users of the chemicals to decrease their rate of application or switch to more benign compounds.

Funds should also come from non-renewable resource development, similar to the Trust Fund

proposal discussed earlier. The two projects have somewhat different objectives and the government would have to decide what the priority should be for that portion of oil, gas, and mining royalties. In order to implement both projects, royalties could be increased to provide revenue for the Bank (remember that the Trust Fund proposal did not involve an increase in royalties from non-renewables).

A final source of income could be from the people of British Columbia. Two approaches are possible. Households and businesses could be offered tax-deductible bonds. These bonds would have low-yielding interest but would nonetheless appeal to many British Columbians given their tax-deductible status. A different approach – one that would not reduce government tax revenue would be to raise capital by selling guaranteed, dividend-paying shares to governments, pension funds, and individuals. Shares would be non-voting, to ensure the public/democratic control of the Bank. Rates of return would be small, say 2% to 3% above inflation, but adequate for pension plan requirements. Though some individuals and pension fund managers might balk at the lower rates of return, others would be attracted to a guaranteed return and to the Bank's role as a source of economic development funds for BC. Many individuals already invest in lower-yielding, but guaranteed, trust funds or ethical funds that appeal to people's values.

5.2.2 Using the revenue

The Bank would periodically put out a call for proposals to the private sector, co-operatives, non-profits, communities, First Nations, and unions. The proposals would be evaluated using a well-developed selection process and clear criteria. A panel of experts would be given the task of choosing between the various proposals.

The idea behind an investment bank is to make investments that resource-based companies of all stripes are not presently making. If one looks at a community's needs with respect to economic development, it is easy to see how an engaged and committed provincial government can help.

Funds would not necessarily be returned to the sector that generated them. Instead, the assets would be distributed to any company or group proposing capital investments that rank high with respect to the criteria. Favoured activities would include manufacturing value-added products. Projects that increase resource efficiency would be considered: using technologies that decrease energy use in a pulp mill, increase the percentage of wood used at a sawmill, or increase mineral recovery at a mine. Finally, the purchase of environmental technologies, leading to less air and water pollution, would also be a priority. The Bank could fund these projects by offering grants or low- or zero-interest loans to applicants. The Bank could also buy preferred shares from those companies, thereby investing in these ventures on behalf of all British Columbians.

The Investment Bank should also apportion funds to firms that are developing the technologies—pollution-abatement, resource-recovery, productivity-increasing—that are needed by resource companies to make them more innovative, competitive, and responsible.

POLICY RECOMMENDATION: The provincial government should establish a Provincial Resource Investment Bank to collect revenue from various resource activities and BC investors and extend favourable financing to investment projects evaluated through a transparent, competitive bidding process.

5.3 Community economic development

Another approach to creating needed investment in resource industries is community economic development, an approach that is about empowering local communities to meet their own specific needs.

5.3.1 What is community economic development?

Community economic development (CED) has many definitions and takes on many forms. For natural resource-based communities, it often means diversifying the local economy so it is less dependent on one or two commodity exports. CED initiatives provide economic alternatives for communities that are unable to influence the broader economic and political factors that affect resource towns. ¹⁰⁵ They provide stability to towns normally tossed around by the boom and bust cycles of commodity prices. By this definition, many of the proposals in this report can be characterized as community development. But the main difference between CED projects and other initiatives is that CEDs are community-driven.

The first step in a CED plan is often the community coming together and acknowledging that there is a problem. Either community members foresee an end to the industry they rely upon or they are already ill-served by that industry.

Creating a community economic development organization (CEDO) becomes the next step. The form these organizations can take is also broad and diverse. Usually they are non-profit organizations but some are run as corporations while others are co-operatives. They can be coordinated through a local government or a board of directors elected from the community. Regardless, what they all seem to have in common are community participation and acceptance, with a structure that is accountable to that community.

5.3.2 The role of public policy in CED

The community-oriented nature of CED projects might lead one to believe that there is no role for the provincial government. Indeed, the assumption underlying many community economic development models is that these projects must be initiated at the community level *in the absence* of government or the corporate sector. In other

words, government policy cannot be relied upon to provide needed resources or to prompt corporations to do so. Given the recent past — mills and mines shut down and fishing boats idled with little response from government — this is not a surprising conclusion. What this philosophy neglects, however, is the responsibility that governments and corporations have to workers and their communities. It also neglects the policy tools that are available to government to empower communities to undertake economic development projects.

If one looks at what a community's needs are with respect to economic development, it is easy to see how an engaged and committed provincial government can help. Local control of businesses and industries, access to Crown resources, and a capacity to raise capital are required for CED projects to be successful. ¹⁰⁶ These can and should be delivered by a provincial government.

The first step is for the government to create enabling legislation that gives communities a foundation for developing CED projects and commits government to help with that development. The relationship between the government and the community can be formalized in a community development agreement. Capacity building, mostly in terms of managerial expertise, also has to be part of government's role for successful CED projects. Many CEDs will have directors who are community leaders — intelligent, committed, and well intentioned — but who may have little experience in management or business.

In the case of resource-dependent communities, CEDOs will sometimes require some control over forestry or fisheries resources (see Casein-point: The Cortes Initiative). Mechanisms for the provincial government to extend this – forest tenure reform and changes to fishing license allocation – were discussed earlier. For other communities the strategy will be to find other ways of generating economic activity, endeavors such as tourism or cultural development, which lie outside the traditional resource sector.

Finally, CEDOs have to be given the ability to generate capital. This can be done in several ways. A subsidiary of the CEDO can be given the authority to issue community bonds to investors. The province can help by either giving a tax credit to investors for a portion of their contribution or by guaranteeing the principal on the bonds so that investors carry no risk. ¹⁰⁷ There is also the possibility for investment by venture capital funds, based here in BC and elsewhere, and for individual investors and credit unions interested in socially-and environmentally-responsible projects.

To reiterate, these types of development projects cannot be initiated at the provincial level. But given the capacity, communities themselves can work to change the economic and social situation they are in, becoming more self-reliant in the process.

POLICY RECOMMENDATION: The provincial government should pass enabling legislation for communities to develop economic development plans, and help communities acquire the capacity to realize them.

5.4 Making resource corporations more accountable to workers and the public

When corporations mount campaigns to protest what they call government intervention, they often do so by using the media to "inform" the public about government intrusion into the business world generally, and the activity of the markets more specifically. One of the more unfortunate consequences of this activity is that the public, in whole or in part, begins to believe that government is nothing but a nuisance to business. Forgotten are the costly infrastructure projects - roads, highways, sewers, and the delivery of water, energy and information - that governments undertake and businesses rely upon. Also forgotten are government social programs that deliver to business an educated and healthy workforce, and social stability and cohesion.

One of the more unfortunate consequences of corporate campaigns is that the public, in whole or in part, begins to believe that government is nothing but a nuisance to business.

Another unfortunate reality is that when businesses do convince governments to "get out of the way" – not completely of course, business interests do want to continue receiving government subsidies – the public interest is compromised. The following are policies that the provincial government can implement in order to ensure that the public interest is not lost in the business community's quest for revenue and prof-

its. Some are "sticks", but most are "carrots" that challenge the corporate sector to operate responsibly as well as prosperously. Many involve a cooperative arrangement between government and industry, granting the corporate sector some of their demands in exchange for commitments from them with respect to their responsibility to their workers. These constitute investments of a different kind, in human and social capital.

CASE-IN-POINT: The Cortes Initiative

The Cortes Initiative is a joint proposal put forward by the Klahoose First Nation, the Cortes Ecoforestry Society, and Weyerhaeuser Corporation to establish a community-based forestry operation on Cortes Island. Half the island would become the forestry base of the Cortes Initiative, combining Weyerhaeuser's 1800 hectares of private land with 5700 hectares of Crown land. As part of the proposal, Weyerhaeuser would be compensated by being given access to Crown land elsewhere in BC.

The three parties have together developed a Forest Management Plan and a Business Plan. Their management plan proposes cutting 4000 cubic metres of timber every year using an ecosystem-based model of forestry. Landscape level planning, large protected areas, selective logging, and an annual cut that is well below the potential long-term harvest level all fit within this model. Value-added enterprises would include kiln-drying hemlock and Western red cedar, and manufacturing moulding. The plan is to eco-certify the operations through the Forest Stewardship Council, with guidance from Herb Hammond of the Silva Forest Foundation.

Since the operation is small scale, there will be no need for large capital expenditures that have to be financed through the extraction of large volumes of timber. Despite the small volumes, however, a conservative estimate projects the creation of 50 full-time jobs. ¹⁰⁹ This would be ten times the provincial average for employment per volume of timber cut. There are also plans for a forestry educational centre on the island to promote ecosystem-based forestry.

This is a unique opportunity for the provincial government to create community economic development in a rural area by transferring control of the local forest to the coalition. Like most CED projects, the project was initiated at the local level, and the Cortes community has demonstrated strong support for the project. The project would also serve as a Treaty Interim Measure for the Klahoose First Nation, and would become part of the province's Community Forest Agreements. It would also be the largest ecosystem-based forestry operation in the province.

The provincial government can duplicate this model elsewhere in the province by re-distributing tenure (as described earlier). In the same way that the provincial government should be demanding certain criteria – like good employee relations and a unionized work environment – from forest companies, they should make similar demands from community forest projects.

More info: http://oberon.ark.com/~ecofor/CortesInitiative.htm

5.4.1 Most Favoured Companies

The government should establish a record of Most Favoured Companies (MFCs). These would be companies that maintain a high standard with respect to creating jobs; paying good wages; abiding by environmental laws; providing decent benefits to workers, including offering company shares (see Section 5.5); providing training and upgrading skills for workers; and implementing policies that lead to greater job creation such as investing in value-added manufacturing. These criteria could easily be quantified, for example contributing 3% of payroll to a pension plan and 2% to training and education; having a clean environmental compliance record; making 50% of research and development investment within BC; and reinvesting in BC 80% of the revenue generated from BC natural resources and labour.

There are three purposes to establishing criteria for social responsibility and compiling a list of Most Favoured Companies. The first is to set out the parameters for what a government expects from its business partners. The second is to inform the public about which companies are operating responsibly. Consumers are increasingly active in choosing where their dollars are spent based on ideals such as corporate responsibility. The third, likely the most important from businesses' point of view, is that those companies meeting the criteria would receive a variety of benefits.

First, the province can set up a two-tiered corporate tax rate. Most Favoured Companies would pay lower taxes. These companies would also receive preference for government contracts. The provincial government could use the list of MFCs as a deciding factor when awarding grants or subsidies, and could encourage other levels of government to do the same. The province can also allow these companies to issue annual rather than quarterly reports, partly to encourage companies to emphasize long-term company health. Certainly, some of these ideas will be controversial with both conservative and progressive analysts, but the

underlying goals of these initiatives are to move forward the debate over what constitutes corporate responsibility, give incentives for companies to act responsibly, and foster an environment of cooperation between government and industry.

POLICY RECOMMENDATION: The provincial government should establish a Most Favoured Company policy that rewards socially responsible companies with government contracts, lower taxes, and fewer reporting responsibilities.

The unfortunate reality is that when businesses convince governments to "get out of the way" the public interest is compromised.

5.4.2 Subsidies and tax credits

Tax breaks, grants, and other subsidies have long been a strategy used by all levels of government for job retention and creation, but they rarely come with enforceable commitments. A potentially less controversial alternative to the Most Favoured Company strategy is simply to tie all government aid programs aimed at the corporate sector to strict performance requirements with penalties for non-attainment of those standards.

For example, all grants aimed at job creation should be developed in conjunction with, and endorsed by, the workers of the company. If these grants result in layoffs within a given amount of time, the company would have to pay back the amount of the grant with interest. Companies receiving tax credits would have to maintain operations at the project location for twice as long as the term of the tax credit. Economic development aid would come with requirements that the company stay within the province for at least a specific, substantial amount of time. Again, violation of those requirements would result in having to pay back the amount of the aid. If a firm relocates within the province its workers should have the right of first refusal for work at the new location.

Whether considering the Most Favoured Company or the "tied-aid" approach, there must be a certain degree of corporate transparency. An audit of corporate operations would have to be con-

ducted in order to ensure that companies receiving special treatment from the government were meeting the requirements set out for those benefits. Jobs created, jobs retained, and wages and benefits provided would all be a part of this audit.

POLICY RECOMMENDATION: The provincial government should establish requirements for companies receiving government grants or subsidies, with penalties (a requirement to pay back the grant or subsidy with interest) for companies not meeting those requirements.

5.5 Employee ownership of resource corporations

Mechanisms have been adopted in various jurisdictions for workers, as part of their benefits, to receive shares in the companies they work for. Presently, there are over 10,000 firms in the U.S. with employee share ownership plans (ESOPs). 110 Company contributions to the employee fund are tax deductible and payouts to the employee are vested, that is the employee has to wait a given number of years before accessing the shares. The advantage of this system is that the employee is able to put away retirement funds, the company retains the ability to invest that capital until the employee leaves or retires, and the employees gradually increase their proportional ownership in the firm.

ESOPs have had numerous claims made about them, including that the company will operate to a greater degree in the workers' or the public interest, that workers will become more committed to their work, and that companies can become more productive and profitable. 111 Some of these claims are justified. The North American workplaces with ESOPs that have allowed workers to become involved in the management of the firm have been found to experience substantial gains in corporate performance. 112 Also, by becoming active in shareholder meetings, resource-based workers can influence corporate decision-making

with respect to investment, and direct that investment towards increased employment and the long-term health of the company. However, worker control is not guaranteed, even when employees own a significant proportion of company shares. Many companies remain very hierarchical, with little opportunity for employee input in the workplace. 113

A strategy of restructuring the economy to encourage ESOPs was developed in Sweden by Rudolph Meidner. The Meidner Plan for Economic Democracy called for a percentage – the Swedes proposed 20% – of a corporation's profits to be pooled into a worker's fund and used to buy equity shares in the company. ¹¹⁴ Collective ownership of the fund encouraged employees to become active in determining the future of the company. Under any plan for employee ownership, the preferred structure for making decisions as shareholders is the one-person-one-vote system, a more democratic arrangement than voting by worker "ownership" of the fund.

Policies can be put into place by a provincial government to facilitate employee ownership in resource corporations. In the case of an ESOP, changes to corporate income tax regulations have to allow a deduction for all funds that go towards employee shares. ESOPs can also be one of the criteria required of a Most Favoured Company. The Ministry of Labour should aggressively promote ESOPs to business, labour, and educational organizations, targeting the benefits to be had from the cooperative approach found in some ESOPs. Implementing the Meidner Plan would be considerably more difficult, seeing as it would essentially work as a corporate tax, even if corporations were given a benefit in exchange.

POLICY RECOMMENDATION: The provincial government should implement policies that facilitate and encourage the development of employee share ownership plans in BC companies.

ESOPs that have allowed workers to become involved in the management of the firm have experienced substantial gains in corporate performance.

Conclusions

THE ABOVE POLICY ALTERNATIVES ARE INTENDED TO FORM A NEW APPROACH TO managing BC's resources, which, for the most part, still belong to the people of this province. Taken together, the recommendations put forward a strategy that is less piecemeal, less reactionary, and more reflective of the economic realities of BC's resource sector.

This paper presents what is essentially a two-fold approach. First, it sets out to establish a new relationship between the public and the private sector. It challenges BC's resource corporations to enter into a new social contract with British Columbians by working cooperatively with the government that represents them. This approach concedes that there are ways for the government to make changes so that resource corporations are better able to operate in this province. However, it also asserts that corporations have responsibilities too. In short, this strategy urges government to tell the resource industries: "Invest in value-added production. Invest in worker training, job security, and job creation. Invest in environmental technologies. Accept these responsibilities, and we will work to make your operations more profitable."

The second portion of this new approach involves looking for alternatives to the present industrial and investment structure. The more options a government has to choose from with respect to managing its resources, the more bargaining power it has with each entity wanting a piece of those resources. The provincial government should therefore open up its resources to players other than the large resource companies. Communities, co-operatives, First Nations bands, and small businesses have unique strengths, deserve to participate in the management and development of the province's natural resources, and are able to make the type of investments needed to attain stability and sustainability.

To reiterate the recommendations made in the paper, the provincial government should:

Forestry:

- Ban the export of raw logs from Crown land and work with the federal government to do the same with raw log exports from private land.
- Provide tax credits to forest companies investing in value-added production, with the revenue coming from increased stumpage rates.
- Establish partnerships with coastal hemlock producers to invest in kiln-drying technology.
- Make more wood available to small firms wanting to manufacture value-added products by reforming the Small Business Forest Enterprise Program and establishing more log yards.

This strategy urges government to tell the resource industries: "Invest in value-added production. Invest in worker training job security, and iob creation. Invest in environmental technologies. Accept these responsibilities, and we will work to make your operations more profitable."

The more options a government has to choose from with respect to managing its resources, the more bargaining power it has with each entity wanting a piece of those resources.

- Use the *Forest Act* to set the range of acceptable fluctuations in chip prices in exchange for an agreement from pulp producers to invest in paper making when pulp prices are high.
- Reduce or eliminate the sales tax on eco-certified wood products and require provincial wood purchasers like the province's construction industry to use a minimum percentage of eco-certified wood.
- Provide resources (workshops, conferences, trade shows) to companies to help them become ecocertified, and to market and sell their eco-certified products.
- Provide low- or zero-interest loans to pulp producers wanting to invest in closed-loop technology.
- Extend the deadline on the Zero-AOX Law (with a firm end date), but implement a tax shift
 policy that increases the cost of AOX emissions, and use the revenue to give tax credits to companies investing in compliance.
- Develop Forest Stewardship Agreements by entering into discussions with industry, communities, and First Nations people.
- Require forest companies as part of their forest license to post investment bonds to ensure that promised investments are made.
- Use provisions in the *Forest Act* to remove forest companies' tenure rights during license expiry, tenure transfer, or mill closure – unless they are willing to make binding commitments to make needed investments in their operations.
- Redistribute tenure to community forest projects that are willing to use unionized workers in their
 operations.
- Negotiate interim agreements with First Nations people and, as part of treaty settlements, provide them with resources to develop forestry plans and market ecologically-friendly forest products.

Fisheries:

- Set up a public investment program specific to fishing communities to fund the start-up of small businesses, build infrastructure where it is needed, and provide business skills to those interested.
- Work with the federal government to implement a progressive royalties system in all fisheries, with
 the revenue being used to diversify fishing economies and develop and market locally-based,
 sustainable fish products.
- Work with the federal government to establish regional management boards for all BC fisheries.
- Strengthen the Forest Practices Code to increase the buffer left around streams and eliminate logging on steep, unstable slopes.
- Work with farmers to leave buffers between agricultural land and water bodies.
- Work with Vancouver and Victoria regional districts and the federal government to develop and implement an investment plan for secondary sewage treatment.
- Mandate a future ban on open net fish farms and in the interim implement a tax shift policy
 that increases fees for open pen licenses and grants tax credits for the purchase of closed containment technology.

Mining, oil, and gas:

- Establish a trust fund by pooling a portion of resource royalties and taxes from oil, gas, coal and
 other mining operations; the capital should be used for economic development projects and retraining within the province.
- Amend the Mines Act so that companies developing a non-renewable resource must post a community transition bond, to be used by the community and workers for transition once the project is completed.
- Shift subsidies in mining to emphasize recycling materials and resource efficiency.
- Work with the federal government and industry to establish product stewardship programs, making companies responsible for their products over their whole life-cycle.
- Amend the *Mining Rights Amendment Act* so that all activities, including mining, are considered on Crown land in order to choose the "highest" use for each parcel of land.

Overall resource sector investment:

- Form an Economic Council for the Resource Sector in order to study BC's resource sector and make recommendations on industrial strategy and economic development.
- Establish a Provincial Resource Investment Bank to collect revenue from various resource activities and BC investors and extend favourable financing to investment projects evaluated through a transparent, competitive bidding process.
- Pass enabling legislation for communities to develop economic development plans, and help communities acquire the capacity to realize them.
- Establish a Most Favoured Company policy that rewards socially responsible companies with government contracts, lower taxes, and fewer reporting responsibilities.
- Establish requirements for companies receiving government grants or subsidies, with penalties (a
 requirement to pay back the grant or subsidy with interest) for companies not meeting those
 requirements.
- Implement policies that facilitate and encourage the development of employee share ownership plans in BC companies.

The federal government clearly has responsibilities in many of the above areas, including: raw log exports from private land; First Nations treaty negotiations; management of West Coast fisheries, including implementing a royalties system for fisheries and redistributing fisheries licenses to owner-operators; sewage treatment infrastructure; and product stewardship programs. But most of these ideas are amenable to the province acting alone or taking the lead.

Together, these policy ideas offer hope. They demonstrate that, if we think outside the box, we can bring about value-added and environmentally-friendly investment – bringing resource-based communities renewed stability and long-term sustainability. These ideas show that it is indeed possible to recapture the wealth generated from BC's resource sectors, and put it to use creating jobs and strengthening our environmental protection.

While the federal government has responsibilities in many of these areas, most of these ideas are amenable to the province acting alone or taking the lead.

Notes

- ¹ Marshall, 2000.
- ² Stanford, 1999.
- ³ Stanford, 1999, p.24.
- ⁴ Stanford, 1999, p.100.
- ⁵ Stanford, 1999, p.105.
- ⁶ Meckstroth, 1993, p.34.
- ⁷ Stanford, 1999, p.92.
- ⁸ Stanford, 1999, p.115.
- ⁹ For example, see Huffscmild, 1997, p.70.
- ¹⁰ Labour productivity can be measured by either output (usually Gross Domestic Product, or GDP) per worker or output per hour worked. For a more thorough discussion of productivity, see Lee, 1999..
- ¹¹ B. Wilson, p.3.
- ¹² B. Wilson, p.2.
- ¹³ F. Wilson, 1999, p.5.
- ¹⁴ Repetto, 1995, p.88.
- 15 Hamilton, 2000a.
- ¹⁶ Repetto, 1995, p.105, 130.
- ¹⁷ Goodstein, 1999, p.11.
- ¹⁸ Stanford, 1999, p.394.
- ¹⁹ Porter and van der Linde, 1995.
- ²⁰ Repetto, 1995, p.84.
- ²¹ Wallace, 1995, p.234.
- ²² OECD, 1997, p.84.
- ²³ Gibbon, 2000.
- ²⁴ B. Wilson, p.2.
- ²⁵ Carter, 1998.
- ²⁶ Pricewaterhouse Coopers, 1998, 2000.
- ²⁷ Pricewaterhouse Coopers, 2000.
- ²⁸ Carter, 1998.
- ²⁹ Marshall.
- ³⁰ Hamilton, 2001.
- ³¹ Hamilton, 2000b.
- ³² Hamilton, 2000c.

- ³³ PricewaterhouseCoopers, 1999a.
- ³⁴ Peerla, 2000, p.23.
- 35 Rowland, 2000, p.24.
- ³⁶ Canadian Institute for Environmental Law and Policy, 2000, p.17.
- ³⁷ Vancouver Sun, 2000.
- ³⁸ BC Stats, 1999.
- ³⁹ F. Wilson, 1999, p.5.
- ⁴⁰ Raw logs also enter BC from other jurisdictions. Thus, the policy should require that there is no *net* export of raw logs out of BC..
- ⁴¹ Auditor General of BC, 1999.
- ⁴² BC Ministry of Finance, 1999, p.310.
- ⁴³ Eco/Log Week.
- 44 Schadendorf, 1997, p.23.
- ⁴⁵ Parfitt.
- ⁴⁶ Ministry of Forests, 1996-1998.
- ⁴⁷ Parfitt.
- ⁴⁸ Schadendorf, 1997, p.1.
- ⁴⁹ Price Waterhouse, 1995.
- ⁵⁰ Schadendorf, 1997, .1.
- ⁵¹ B. Wilson, p.9.
- ⁵² B. Wilson, p.10.
- ⁵³ Marshall, p.21.
- ⁵⁴ Smyth, 1999.
- ⁵⁵ Rowland, 2000.
- ⁵⁶ Peerla, 2000, p.25.
- ⁵⁷ Coastal Rainforest Coalition, 2000.
- ⁵⁸ Forest Stewardship Council.
- ⁵⁹ Ritchlin and Johnston, 1999, p.41.
- 60 Gleadow et al., 1997.
- 61 Ritchlin and Broten, 2001.
- 62 Peerla, 2000, p.22.
- 63 PricewaterhouseCoopers, 1999a.
- ⁶⁴ Forest Act, s.14.

- ⁶⁵ Wouters, 2000, p.55.
- ⁶⁶ Forest Act, sections 54(1), 56(1).
- ⁶⁷ Forest Resources Commission, 1991.
- ⁶⁸ Forest Act, section 71.
- ⁶⁹ Wouters, 2000, p.67.
- ⁷⁰ Burda et al., 1997, p.49.
- ⁷¹ BC Ministry of Community Development, Co-operatives and Volunteers, 2000a, p.39.
- ⁷² Simpson, 2001.
- ⁷³ PricewaterhouseCoopers, 1999b.
- ⁷⁴ Fisheries Renewal BC, 1999, p.ii.
- ⁷⁵ PricewaterhouseCoopers, 1999b.
- ⁷⁶ Coastal Community Network, 2000, p.20.
- ⁷⁷ Edwards and Glavin, 1999, p.22.
- ⁷⁸ Edwards and Glavin, 1999, p.23.
- ⁷⁹ Pinkerton and Weinstein, 1995, p.179.
- 80 Edwards and Glavin, 1999, p.23.
- 81 Edwards and Glavin, 1999, p.23.
- 82 Pacific Salmon Review Panel, 1996, p.22.
- 83 Edwards and Glavin, 1999, p.15.
- 84 Sierra Legal Defense Fund et al., 1998, p.7.
- 85 Sierra Legal, 1997.
- 86 Dwernychuck, 1991.
- 87 Roberts et al., 1999.
- 88 Sierra Legal, 1999, p.20.
- 89 Sierra Legal, 1999, p.22.
- ⁹⁰ Simpson, 2000.
- 91 Auditor General of Canada, 2001, p.30-5.
- 92 BC Ministry of Fisheries, 1999.
- 93 Pretes, 2000.
- ⁹⁴ Pretes, 2000, p.1-2.

- 95 Canadian Institute for Environmental Law and Policy, 2000, p.46.
- ⁹⁶ Wisconsin's Net Proceeds Tax, s.70.37 (1).
- 97 Wisconsin Department of Revenue, 2000, p.2.
- ⁹⁸ Minister of Public Works and Services Canada, 1996, p.12.
- ⁹⁹ EMCBC, 1997, p.1.
- 100 Muldoon and Winfield, p.4.
- ¹⁰¹ J. Young, p.8.
- ¹⁰² Canadian Institute for Environmental Law and Policy, 2000, p.16.
- ¹⁰³ A. Young, 1997, p.5.
- ¹⁰⁴ Canadian Institute for Environmental Law and Policy, 2000, p.19.
- ¹⁰⁵ McAllistair and Alexander, 1997, p.44.
- ¹⁰⁶ BC Ministry of Community Development, Cooperatives, and Volunteers, 2000b, p.2.
- ¹⁰⁷ BC Ministry of Community Development, Cooperatives, and Volunteers, 2000c, p.28.
- ¹⁰⁸ Cortes Ecoforestry Society, 2000.
- This estimate was calculated by taking the employment created at a similar but smaller operation in Nova Scotia that is being used as a model for the Cortes Initiative, making adjustments for differences in size and volume cut, and reducing it by half to account for the productivity benefits of a larger operation.
- ¹¹⁰ Wills, 1998, p.80.
- ¹¹¹ Blasi, 1988, p.6.
- ¹¹² Wills, 1998, p.81.
- ¹¹³ Blasi, 1988, p.241.
- ¹¹⁴ Bowles et al., 1983, p.316.
- 115 Blasi, 1988, p.247.

References

- Auditor General of BC. 1999. "FRBC: Planning and accountability in the corporation." Victoria, BC.: Office of the Auditor General of BC.
- Auditor General of Canada. 2001. "Chapter 30 The Effects of Salmon Farming in British Columbia on the Management of Wild Salmon Stocks." Ottawa: Office of the Auditor General of Canada.
- BC Ministry of Community Development, Co-operatives and Volunteers. 2000a. "Inventory of Community Economic and Social Development Funding Programs Serving BC." (Prepared by James Pratt Consulting) Victoria, BC.
- BC Ministry of Community Development, Co-operatives and Volunteers. 2000b. "Towards a Regional and Community Development Act." Victoria, BC. (Oct. 16)
- BC Ministry of Community Development, Co-operatives and Volunteers. 2000c. "Toward Revitalized, Resilient and Sustainable Communities across British Columbia." Victoria, BC. (June)
- BC Ministry of Finance and Corporate Relations. 1999. 1999 BC Financial and Economic Review, 59th Edition. Victoria, BC.
- BC Ministry of Fisheries. 1999. "The 1998 British Columbia Seafood Industry Year in Review." Victoria, BC.
- BC Ministry of Forests. 1995. "Value Added: A profile of 7 businesses increasing the value of each tree grown in BC." Victoria, BC.
- BC Ministry of Forests. 1996. "Small Business Forest Enterprise Program Disposals." North Coast Forest District.
- BC Ministry of Forests. 1997. "Small Business Forest Enterprise Program Disposals." North Coast Forest District.
- BC Ministry of Forests. 1998. "Small Business Forest Enterprise Program Disposals." North Coast Forest District.
- BC Stats. 1999. Exports (BC Origin), 1990-1999. BC Stats: Victoria, BC.
- Blasi, Joseph R. 1988. *Employee Ownership: Revolution or Ripoff?* Ballinger Publishing Company: Cambridge, Mass.

- Bowles, Samuel, David M. Gordon and Thomas E. Weisskopf. 1983. *Beyond the Wasteland: A democratic alternative to economic decline*. Anchor Press/Doubleday: Garden City, N.Y.
- Burda, Cheri, Deborah Curran, Fred Gale, and Michael M'Gonigle. 1997. "Forests in Trust: Reforming British Columbia's Forest Tenure System for Ecosystem and Community Health." Victoria, BC: Eco-Research Chair, University of Victoria.
- Canadian Institute for Environmental Law and Policy. 2000. "Mining's Many Faces: An Overview of Environmental Mining Law and Policy in Canada." Toronto: CIELAP.
- Carter, Reid. 1998. "Death of an Industry?" Vancouver, BC: First Marathon Securities Ltd. (April)
- Coastal Community Network. 2000. ""New Beginnings, New Directions, New Initiatives." Proceedings from 2000 Conference of Coastal Communities, May 5-7: Richmond, BC. Port Alberni, BC: CCN.
- Coastal Rainforest Coalition. 2000. Press release: "Andersen Windows to Protect Forests." September 14.
- Cortes Ecoforestry Society. 2000. "The Cortes Island Community Forest." Electronic database accessed on Nov. 17, 2000 at: oberon.ark.com/~ecofor/ CommunityForest.htm
- Dwernychuck, L.W., G.S. Bruce, B. Gordon, and G.P. Thomas. 1991. "Fraser and Thompson Rivers: A Comprehensive Organochlorine Study 1990/91." West Vancouver, BC: Hatfield Consultants Ltd.
- Eco/Log Week. 2001. "Forest Renewal BC sets investment goal of \$279 million." Eco/Log Week: Apr. 23.
- Edwards, Dan and Terry Glavin. 1999. "Set Adrift: The Plight of BC's Fishing Communities." Vancouver, BC: The David Suzuki Foundation. (May)
- EMCBC. 1997. "Mining and the Environment: Background, Issues and Approaches for Biodiversity Activists." Victoria: Environmental Mining Council of BC.
- Fisheries Renewal BC. 1999. "Tracking Progress: Performance Measurement and Reporting Requirements." Prepared by: Greer Consulting Services and Envirologic Consulting Inc. March.

- Forest Resources Commission. 1991. *The Future of Our Forests*. Commissioner, Sandy Peel: Victoria, BC.
- Forest Stewardship Council. 2001. "Forest Stewardship Council Regional Certification Standards for BC-Draft 2." Prepared by the FSC-BC Standards Team for the FSC-BC Regional initiative Steering Committee, May 22. Electronic database accessed on June12, 2001 at: http://fsc-bc.org/showpage.asp?pageid=226&menu=6
- Gibbon, Ann. 2000. "B.C. forest products out of the woods." *Globe and Mail*: (March 8)
- Gleadow, Peter, Calvin Hastings, Brian Richardson, Mike Towers, and Vic Uloth. 1997. "Toward Closed-Cycle Kraft Pulping: Canadian Mill Studies." H.A Simons Ltd. and Pulp and Paper Research Institute of Canada. (April)
- Goodstein, Edan. 1999. *The Trade-off Myth*. Washington: Island Press.
- Government of Canada. 1998. "From mineral resources to manufactured products: Towards a value-added mineral and metal strategy for Canada." Ottawa: Minister of Public Works and Government Services Canada.
- Hamilton, Gordon. 2000a. "Europeans open their wallets for eco-certified rainforest cedar." *Vancouver Sun*. (December 5, 2000), p.D1.
- Hamilton, Gordon. 2000b. "Canfor set to close value-added products plant in Prince George." *Vancouver Sun*. (October 12), p.D4.
- Hamilton, Gordon. 2000c. "BC log exports jump as lumber shipments tumble." *Vancouver Sun*. (September 15), p.A1.
- Hamilton, Gordon. 2001. "BC's forest policies outdated, act like a straightjacket, report says." *Vancouver Sun*. (January 11), p.F1.
- Huffschmid, Jorg. 1997. "Economic policy for full employment: Proposals for Germany". Economic and Industrial Democracy. 18: p.67-86.
- Lee, Marc. 1999. "A Primer on Canadian Productivity." Vancouver, BC: Canadian Centre for Policy Alternatives.
- Marshall, Dale. 2000. "Follow the Money: Understanding the Crisis in BC's Resource Sector." Vancouver, BC: Canadian Centre for Policy Alternatives. (July).
- McAllister, Mary L. and Cybthia J Alexander. 1997. *A Stake in the Future: Redefining the Canadian Mineral Industry*. Vancouver, BC: UBC Press.

- Meckstroth, Daniel J. 1993. The missing ingredient in the economic expansion-new jobs. *Business Economics*. 28(3): p.29-34.
- Minister of Public Works and Services Canada. 1996. "The Mineral and Metals Policy of the Government of Canada," Ottawa.
- Muldoon, Paul and Mark Winfield. 1996. "Brief to the House of Commons Standing Committee on Natural Resources Regarding Mining and Canada's Environment." Toronto: Canadian Environmental Law Association and the Canadian Institute for Environmental Law and Policy. (April)
- OECD. 1997. "Globalization and Environment: Preliminary perspectives." Organization for Economic Cooperation and Development: Paris.
- Pacific Salmon Revitalization Plan Review Panel. 1996. "Tangled Lines: Restructuring in the Pacific Salmon Fishery." Federal-provincial review of the Mifflin Plan. (December)
- Parfitt, Ben. 2001. "The Lands (Forests)" in North of Caution: Charting a Conservation Economy on the Northwest Coast of British Columbia. Vancouver, BC: Ecotrust Canada.
- Peerla, David. 2000. "Let's Make Paper: The Investment Slowdown in the British Columbia Pulp Sector and What We Can Do About It." (Prepared for the Communications, Energy, and Paperworkers Union and The Office of the Jobs Advocate). Vancouver, BC: SAMPO Research. (April)
- Pinkerton, Evelyn and Martin Weinstein. 1995. "Fisheries that Work: Sustainability Through Community-Based Management." Vancouver, BC: The David Suzuki Foundation. (July)
- Porter, Michael and Claas van der Linde. 1995. "Green and Competitive: Ending the Stalemate." *Harvard Business Review*. (Sept./Oct)
- Pretes, Michael. 2000. "Managing Resource wealth in North America: A Trust Fund Approach." Electronic database accessed on Nov. 20th, 2000: www.north americaninstitute.org/naminews/issue18/pretes.html
- Price Waterhouse. 1995. "Special Project on Harvesting and Selling Logs: Vernon Forest District 1993/1994." Report to the BC Ministry of Forests. Vancouver, BC: Price Waterhouse.
- PricewaterhouseCoopers. 1998. "The Forest Industry in British Columbia 1997." Vancouver, BC: PricewaterhouseCoopers.

- PricewaterhouseCoopers. 1999a. "The British Columbia Pulp and Paper Industry: A Competitive Analysis." Vancouver, BC: PricewaterhouseCoopers. (February 22)
- PricewaterhouseCoopers. 1999b. "Administrative and Technical Audit and Review of the Salmonid Renewal Program." Vancouver, BC: PricewaterhouseCoopers. (December)
- PricewaterhouseCoopers. 2000. "The Forest Industry in British Columbia 1998." Vancouver, BC: PricewaterhouseCoopers.
- Repetto, Robert. 1995. *Jobs, Competitiveness, and Envi*ronmental Regulation: What are the real issues? Washington, D.C.: World Resources Institute.
- Ritchlin, Jay and Paul Johnston. 1999. "Zero Discharge: Technological Progress Towards Eliminating Kraft Pulp Mill Liquid Effluent, Minimising Remaining Waste Streams and Advancing Worker Safety." Whaletown, BC.: Reached for Unbleached Foundation.
- Ritchlin, Jay and Delores Broten. 2001. "Irving pulp goes for the gold in pollution prevention." In *Watershed Sentinel*, Whaletown, BC: Vol.11, No.1, p.25.
- Roberts, Wayne, Rod Macrae, and Lori Stahlbrand. 1999. *Real Food for a Change*. Toronto: Random House of Canada.
- Rowland, Jim. 2000. "Future Prospects for BC Paper Production." Unpublished.
- Schadendorf, Christian. 1997. "Do log sort yards benefit the value-added forest products industry?" Nelson, BC: Timberland Consultants Ltd. Forest Renewal BC Research Program.
- Shrybman, Steven. 2000. "Safe to Drink?" Vancouver, BC: West Coast Environmental Law and BC Environmental Network. (April)
- Sierra Legal Defense Fund. 1997. "Going Downhill Fast: Landslides and the Forest Practices Code." Vancouver, BC: Sierra Legal Defense Fund. (June)
- Sierra Legal Defense Fund. 1999. "The National Sewage Report Card (Number Two)." (Prepared for the United Fishermen and Allied Workers Union and the Georgia Strait Alliance) Vancouver, BC: Sierra Legal Defense Fund. (August)
- Sierra legal Defense Fund, Sierra Club of BC, Silva Forest Foundation, BC Environmental Network. 1998. "BC Forestry Report Card, 1997-98." Vancouver, BC: Sierra Legal Defense Fund.

- Simpson, Scott. 2000. "Fish farms linked to collapse of wild fish stocks, experts say." *Vancouver Sun*. (June 29), p.B6.
- Simpson, Scott. 2001. "BC salmon industry seeks ecological certification." The *Vancouver Sun*. (April 26), p.A3.
- Smyth, Doug. 1999. "White Paper Toward a Value-Added Lumber Industry: Tenure and Stumpage Reform in British Columbia." Vancouver, BC: I.W.A. Canada.
- Stanford, Jim. 1999. Paper Boom: Why Real Prosperity Requires a New Approach to Canadá's Economy. Ottawa: The Canadian Centre for Policy Alternatives and James Lorimar and Co. Ltd.
- Statistics Canada. 1999. *Metal Mines 1995-1999*. Ottawa. *Vancouver Sun*. 2000. "BC mining industry is on a death watch. " (July 10), p.A8.
- Wallace, David. 1995. Environmental Policy and Industrial Innovation: Strategies in Europe, the USA and Japan. London: Royal Institute of International Affairs and Earthscan Publications Ltd.
- Wills, Jane. 1998. "A stake in place? The geography of employee ownership and its implications for a stakeholder society." *Institute of British Geographers*. 23(1): p.79-94.
- Wilson, Bill. Secondary Manufacturing: The Reality Behind the Opportunity. Canadian Forest Service. Date and source unknown.
- Wilson, Fred. 1999. "Cutting Costs: the Politics of Trees and Fees in BC." Vancouver, BC: Canadian Centre for Policy Alternatives. (February)
- Wisconsin Department of Finance. 2000. "Investment and Local Impact Fund Board, 1997-1999 Biennial Report." Electronic database accessed on Dec. 14, 2000 at: http://www.dor.state.wi.us/ra/bie97-99.html
- Wouters, Garry. 2000. "Shaping Our Future: BC Forest Policy Review." Victoria, BC: Jobs and Timber Accord Advocate. (March)
- Young, Alan. 1997. "Public Interest Perspectives on Canadian Environmental Mining Issues." Presented to the International Development Research Council's Working Group on Ecosystem Health and Mining in Latin America: Caracas, Venezuela. Victoria, BC: Environmental Mining Council of BC
- Young, John E. 1992. "Mining the Earth." Worldwatch Paper #109. Washington, DC.: Worldwatch Institute.

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