Canadian Forests: A Wasteland?

Remember the child who felt sad because "they killed trees to make my bed"? Many environmentalists believe that logging is bad, and that clear-cutting threatens to destroy life on this planet. Our schools, guided by such views, give our children a one-sided picture of logging and a completely distorted view of what our forests are like.

Chemainus, like many other British Columbian towns, was once supported by a thriving forestry-based economy. The closure of the sawmill in 1983 sparked environmentalists to declare that the province was running out of trees, and that we were overlogging the planet.

Textbooks echo these warnings, misguiding a generation of children into feeling guilty about their furniture. "Green" propaganda becomes more important than facts, and exaggeration for the effect of teaching children to be environmentally sensitive becomes the norm. The truth is that the world has an abundance of trees, and that British Columbia's forest management practices are improving, although you won't learn that in school.

No Trees Left?

Our children learn that our forests are largely gone. They were cut down by greedy commercial interests and they will never be the same again.

- "Ninety percent of the forests have disappeared since Ontario was settled 150 years ago," according to the World Wildlife Fund in *Take Action*.[1]

- *Investigating Terrestrial Ecosystems* states that, "about one-third of the land area of the earth is forest. This is a generous figure, since it includes savanna and scrubland, where trees are few and scattered. Before humans began to exploit the forest, this figure probably stood at two-thirds." It further warns that Canadian forests "have degenerated to a dangerous point."[2]

- And *Journeys in Science* says that "five hundred years ago . . . three-quarters of the area of North America was covered with forest. The European settlers who began arriving in the early sixteenth century cut down and burned vast areas of forest to clear the land for settlements and farms. Sometimes, the result was disastrous."[3]

- According to *Science Probe 8*: "Forest researchers . . . think that we may not produce enough wood to meet the demand in the future."[4]

- "What if the forests that are cut down for paper are not replanted?" asks the Merrill text *Biology: The Dynamics of Life*. "Eventually wood would become a limited resource." (Just in case students miss the point, the text shows a picture of a clearcut forest.)[5]

But was clearing land for farms and using the wood to build homes "disastrous"? After all, in the nineteenth century, people wanted farms and homes more than they wanted pristine forests full of dangerous animals. And were the forests destroyed haphazardly, or were they harvested for good reason? What is the current state of our forests? The texts avoid these questions.

Are We Running Out of Trees?

The premise that the nation is running out of trees is simply untrue. Federal and Provincial governments own over 90 percent of forests in Canada. Every year, the government names the annual allowable cut for these Crown lands. This allowable cut is much less than the total new growth each year. And, in fact, the harvest levels are usually far below the allowable cut. Since 1970, the harvest of softwood exceeded the allowable cut only once, in 1989.

Canadian Total Annual Harvest and Annual Allowable Cut (by volume in millions of cubic meters)

	Total Annual Harvest	Annual Allowable Cut
1993	169.3	230.7
1988	184.4	233.7
1983	149.6	207.1
1978	151.9	227.9
1973	140.5	228.4
Source: National Forestry Database, Canadian Council of Forest Ministers		

Government restrictions and geographical factors combine to make less than half of Canada's forestland available for commercial

logging.[6] Lands that are theoretically available for commercial harvest are often inaccessible. Much of the forestland in British Columbia, for example, is hard to reach, covers mountains where it is difficult and dangerous to log, and is a long way from lumber markets. Textbooks rarely mention these vast forests that nobody wants to log. They focus on relatively small areas like the Carmannah Valley and Clayoquot Sound in the southwestern corner of British Columbia or along the coastline. These are the forests that receive the most press coverage but they are not representative of Canada's vast forestland.

Clearcuts: Destructive or Efficient?

Textbooks, environmentalists, and the media all agree that clearcuts are bad. Our children's texts provide photographs of especially unattractive examples of recently clearcut hillsides. During a skit presented to an elementary school in Vancouver, the BC Ministry of Environment-funded *Green Team* asked the class a riddle: "There were once thousands of trees and species for thousands of years, and now there are just stumps." The children are supposed to say what the team is describing, and they do: "A clear-cut."

In the same presentation, an itinerant caterpillar sings to an orphaned pine tree:

> Home, home on the range,
> Where the deer, and the bears,
> and the caterpillars used to play,
> Where seldom is heard,
> An encouraging word,
> And the machines and the people came
> and took all the trees away!"[7]

Children's books tell the same story. *Maxine's Tree*, a children's book, tells the story of a clearcut through the eyes of a five-year-old: "The mountainside across the valley was bare. Its trees had been cut and taken away. Nothing green was left. Only ragged burnt stumps were standing." Maxine's father explains that the forest will "be replanted, but it won't be like an old-growth rainforest. It will be only a tree farm . . ."[8]

"This forest on the left has been clear-cut—all the trees have been completely cleared out," says the children's book *Earthcycles and Ecosystems*. "Large bulldozer-like machines drove into the area, the trees were chopped down with chainsaws, then huge machines cut off their branches"[9]

Take Action, a book endorsed by the World Wildlife Fund describes clearcutting this way: "Using bulldozers and chainsaws, loggers cut or knock down every single tree, whether it is wanted for lumber or not . . ."[10]

Most books of this type focus on the negative aspects of clear-cutting. While it is true that poorly managed clear-cuts can cause problems like river damage and landslides, it is also true that clear-cutting has many advantages.

Clear-cutting is frequently the most economical way to harvest trees and it is a useful way to clear areas where trees have been damaged by fire, insects, or disease. In Sweden as well as Oregon and Washington, clear-cutting has been used to restore forests degraded by partial cutting.[11] Partial cutting can prevent certain light-loving species of trees like the Douglas fir from regenerating properly. As well, clear-cutting mimics the beneficial effects of forest fires.

Most importantly, clear-cutting is often safer than selective logging. In older, less uniform forests, trees may have dead tops and huge dead branches called "widow makers."[12] By clear-cutting we can log these areas with the least risk to loggers—a concern to their families that the textbooks conveniently omit.

Why So Much Logging?

In Canadian history texts, our young people learn that greedy lumber companies exploited Canada's forests by overcutting timber, and that the environmental movement is saving the forests by pressuring the government into establishing parks and protecting forests.

It is true that many forests were heavily logged from early times until recently, but this logging should be put into perspective. When the first settlers arrived, they viewed forests as an impediment. Trees were cut down to make way for farms, towns, and cities. Early settlers did not consider timber a scarce resource. They never envisioned that there could be a shortage of wood. And, in fact, there never was.

When the country began to industrialize after 1850, wood became a valuable resource. Wood was used for fuel in early factories, for railroad ties and bridges, and for construction of houses, farms, and manufacturing centers. Logging changed. Instead of individuals clearing trees for private use, logging became an important part of the nation's industrial economy.

About a century ago, the end of the Gold Rush in the Yukon marked the beginning of the "timber rush" in British Columbia. Prospectors for gold now saw wealth in the trees. The government promoted the expansion of the logging industry, viewing forests as a source of revenue and employment, and a reason to immigrate to the relatively young and undeveloped province.

The forests seemed to be endless. The first generation of loggers used hand-held tools and horses to harvest trees one by one. Even had they wanted to, the technology did not exist at that time to bring about mass deforestation.[13] Logging camps full of young men armed with axes and saws barely left a mark on the forests. Tree-planting was not considered necessary, as there were trees as far as the eye could see. Indeed, had they wanted to replant trees, they would have found it a losing proposition. In the United States, Gifford Pinchot,

who became the first director of the U.S. Forest Service, tried his hand at managing timber in North Carolina, with replanting part of his operation. But he couldn't make money at it.[14]

The fact that the loggers were working predominantly on Crown land also discouraged replanting. They didn't own the land but, rather, leased it. There was no guarantee that they would have access to any trees which grew in the future. Private corporations left regrowth up to the government, whose officials, in turn, left it up to natural regeneration—if they gave it much thought at all.

The government wasn't worried about running out of trees. Due to the primitive nature of technology, and the rugged landscape, the government's early attempts to compile forest inventories were inaccurate. The results confirmed the prevalent—and correct— impression that the forests were vast and that there was no danger of running out of trees. However, there was an exception to this optimism. Railroads needed ties and timbers, and they needed them in large quantities at the right time and in the right place. As a result, the railway companies experimented with tree nurseries. By 1880, plantation forestry was well-established in the eastern and southern states, and in eastern Canada.[15]

Taken as a whole, this history led to an impression of logging summed up by forestry critic and author Ken Drushka: "The lumber industry at the turn of the century operated on an ethic of 'cut the best, leave the rest and move on.'"[16] This image of greedy "cut and run" logging is found in our children's textbooks.

Changing Times

The 1950s were the glory years of the forest industry. Canada's postwar construction boom created a great demand for lumber for building homes, and growing population and a thriving economy boosted demand for other wood products as well. Military technology adapted

to industrial purposes helped loggers harvest timber more efficiently. British Columbia's forests provided timber, employment, and tax revenues for the government.

Most of the forestry communities in North America were created in the latter half of the 20th century.[17] They provided steady employment and good wages for workers in the timber industry, and the towns with timber mills benefited from the healthy economy based on the forests. Company towns such as Powell River and Port Alberni (both of which grew up around MacMillan-Bloedel mills) were among the wealthiest in Canada in the 1960s and 1970s.[18] There began to be health concerns about mill pollution in the 1970s and 1980s, but demonstrations against the forest industry did not draw media attention through their violence until the mid-1980s.[19]

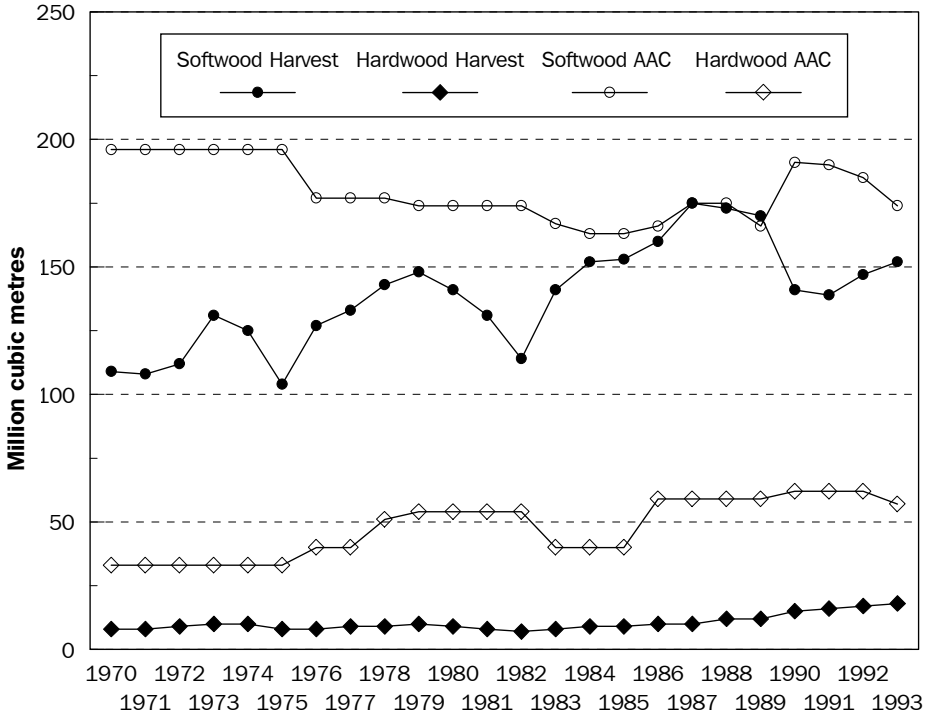
Planting Trees for the Future

While forests regenerate naturally if left alone, planting speeds up the process. Planting genetically superior species can increase the quality and quantity of wood.

Beginning around 1950, foresters became legally responsible for planting trees to replace those harvested from Crown land, but these laws were largely unenforced until the early 1970s. However, between 1975 and 1993, while the logged areas increased by 42 percent, the areas planted or seeded increased by 228 percent.[20]

Direct seeding involves scattering pine cones on the ground, and sometimes breaking them up to release the seeds. Planting involves manual placement of seedlings grown in nurseries. Planting is more expensive and more labour-intensive, but it is a far more successful method of forest regeneration. By the 1990s, foresters were replanting annually well over 400,000 hectares—an area two-thirds the size of Prince Edward Island. Although textbooks often blame big companies for exploitation of the forests, they grant them little credit for later attempts at forest restoration.

Canadian Annual Harvest and Annual Allowable Cut



Talking to Your Children

The story of Canadian forests is a fascinating one. It is a story of settlers arriving in a heavily forested country where there were so many trees that they were an impediment to settlement. These first settlers cleared the land and used the wood. They were followed by loggers who harvested the wood and sold it to build the economy of this nation. Gradually, as wood became more scarce, prices rose. People began to look for substitutes and the timber industry began to manage forests for the long term. Forests are regenerating.

Tree Planting in Canada: Trends in direct seeding and planting of harvested areas

	Direct Seeding by Area (hectares)	Planting by Area (hectares)
1993	34,000	418,000
1992	30,000	433,000
1991	43,000	463,000
1990	37,000	472,000
1989	43,000	434,000
1988	38,000	422,000
1987	37,000	393,000
1986	26,000	309,000
1985	26,000	261,000
1984	34,000	240,000
1983	37,000	212,000
1982	50,000	179,000
1981	43,000	161,000
1980	65,000	147,000
1979	39,000	143,000
1978	37,000	128,000
1977	43,000	122,000
1976	40,000	120,000
1975	34,000	127,000

Source: *National Forestry Database*, Canadian Council of Forest Ministers; Canadian Forest Service, Natural Resources Canada.

Now you are ready to answer some questions that your children may ask.

- Is Canada running out of trees?

  No. The amount of wood grown increases every year, and every year more wood grows than is harvested. Companies consistently stay within the Annual Allowable Cut total, and forest cover has actually increased in southern Ontario from 25 percent to 29 percent since the mid-1960s.[21]

- Why were so many trees cut down ?

  When the settlers arrived in Canada, there were so many trees that it was difficult to farm until some of them were cut. Later, wood was so widely available that it was used for building houses, for fuel in factories, ships and railroads, and for railroad ties and commercial buildings. It exported to many countries. In British Columbia, especially, it was the magnet that attracted immigration with the promise of jobs and even wealth. As long as wood was cheap and plentiful, people did not have an incentive to replant trees.

- What is the state of Canada's forests today?

  Wood is plentiful. More wood is grown each year than is cut down. We are replanting harvested sites far more consistently than in the past.

Activities for Parents and Children

Here are some activities and discussions that will help your children get a more balanced picture of what has happened to North America's forests.

Is "Old Growth" Better than "New Growth"?

"Old-growth" forests are forests whose trees have not been cut or burned for a long time, perhaps several hundred years. New or "second-growth" forests have grown up after being logged or cleared by forest fires. The forests in Stanley Park in Vancouver, British Columbia, for example, are predominantly second-growth, and yet are considered so beautiful that they attract thousands of tourists every year.

Some textbooks suggest that ancient or "old-growth" forests are better than new or "second-growth" forests. If you live near forestland, perhaps you and your children can see for yourself if this is the case. Find out if the forest you visit is "old-growth" or "new-growth." Ask a park or forest ranger to discuss the differences. Some animals such as the northern spotted owl, which nests in the cavities of old trees, thrive in old-growth forests, although they have also been found in younger forests. Small mammals and most large game animals such as deer and moose, however, are more plentiful in younger forests. These forests usually have a greater variety of trees and plant life because the forest floor gets more sunlight than in old-growth forests. Perhaps you can find both kinds of forest in your region. If not, your children can learn more about the differences through library research.

Keep in mind that forests that were never logged are not necessarily composed of old trees. Forests change. Before settlers came to Canada, forest fires were frequent. In fact, First Nations people often encouraged fires to make the land more attractive to game. So, even

if the settlers had never cut down any trees, we would have forests with trees of many different ages, not simply "old-growth."

Visit a Lumberyard with Your Children

Take your children to the local lumberyard to learn how consumers and suppliers respond to changing prices of wood. As prices go up, people conserve wood. By buying less wood, they leave more for others. When wood prices go down, the opposite happens. People want to use more wood, and they conserve competing materials such as plastic and steel. Because people respond to changing prices, we are not likely ever to run out of wood.

At the lumberyard, you could enlist the manager's help.

- Ask him how the price of lumber has changed recently. Has it gone up or down? Why?

- Ask him to show your children the wide variety of wood products, such as plywood, hardwood veneers, particleboard, pressure-treated wood, wood pellets for wood stoves, bark for landscaping, and so on. When wood becomes expensive, suppliers develop products that make a limited amount of wood go farther. Particleboard, for example, uses small bits of cheap wood but is as strong as more expensive lumber. Hardwood veneers—thin layers of wood that are glued on top of less-expensive plywood—make attractive furniture cheaper than it would be if solid hardwood lumber were used throughout.

- Ask him to point out non-wood products that also extend the life of wood or enable us to use less wood. Paints and preservatives protect wood outside. Steel strapping and holders strengthen wood construction. Drywall replaces wood paneling inside homes. Steel studs are used in the walls of homes and office buildings.

Notes

1 Ann Love and Jane Drake, *Take Action* (Toronto: Kids Can, 1992), 50.
2 William A. Andrews and Donna K. Moore, *Investigating Terrestrial Ecosystems* (Scarborough, ON: Prentice-Hall Canada, 1987), 193–94.
3 Larry D. Yore *et al.*, *Journeys in Science 7* (Toronto: Collier Macmillan Canada, Canadian ed., 1990), 353.
4 Frank Baumann, *Science Probe 8*, 2nd Edition, The Wiley Science Program (Toronto: John Wiley and Sons Canada, 1993), 514.
5 Alton Biggs *et al.*, *Biology: The Dynamics of Life* (Columbus, OH: Merrill, 1991), 769.
6 FAO, "The Forest Resources of the Temperate Zones. Main Findings of the UN-ECE /FAO 1990 Forest Resources Assessment," quoted in M. Patricia Marchak, *Logging the Globe* (Montreal: McGill-Queen's University Press, 1995), 32.
7 *The Green Team*, Observation at William Van Horne Elementary School, Vancouver, June 1997.
8 Diane Leger-Haskell, *Maxine's Tree* (Victoria: Orca, 1990).
9 Beth Savage, *Earthcycles and Ecosystems* (Toronto: Kids Can, 1991), 28–29.
10 Ann Love and Jane Drake, *Take Action* (Toronto: Kids Can, 1992), 57.
11 Hamish Kimmins, *Balancing Act: Environmental Issues in Forestry*, Second Edition (Vancouver: University of British Columbia Press, 1997), 79.
12 Kimmins, 81.
13 Marchak, 3.
14 Roger A. Sedjo, "Forest Resources: Resilient and Serviceable," in *America's Renewal Resoures*, ed. by Kenneth D. Frederick and Roger A. Sedjo (Washington, D.C.: Resources for the Future, 1991), 87.

15 Ken Drushka, *Stumped: the Forest Industry in Transition* (Vancouver: Douglas and McIntyre, 1985), 26.
16 Ken Drushka, *Stumped: The Forest Industry in Transition* (Vancouver: Douglas and McIntyre, 1985), 31.
17 Marchak, 41.
18 Marchak, 94, 87.
19 Marchak, 92–93.
20 Environment Canada Website, Forestry.
21 Bruce DeWiel, Steve Hayward, Laura Jones, and M. Danielle Smith, *Environmental Indicators for Canada and the United States*. Fraser Forum Critical Issues Bulletin (Vancouver: The Fraser Institute, March 1997), 34–35.