ILLUSTRATION (TOP) BY NANCY SCICILIANA
PHOTO: COURTESY MINISTRY OF NATURAL RESOURCES

Ontario's Forest Industry

Where Have All the Loggers Gone?

This is the first in a series of fact sheets addressing the vital connection between economically viable communities and healthy forest ecosystems in Ontario. We hope the series will encourage and contribute to constructive, community-based dialogue on forest sustainability.

In Ontario's logging industry, there have been two overlapping trends in the last 30 years: more timber is being harvested and the number of jobs has dropped.

Between 1965 and 1994, the average yearly area logged in the province rose from 136,000 hectares (ha) to almost 210,000 ha — an increase of well over 50%.[1,2]

An even more dramatic change has taken place in harvesting practices. Clearcutting — the complete felling and removal of a stand of trees — is now the method used in Ontario to harvest 91% of the province's forest lands (up from 70% in the 1970s).[2]

The increase in clearcutting over other less intensive harvesting methods like shelterwood, seed tree and selective logging may partially explain why the annual volume of Crown timber harvested more than doubled between 1960 and 1994, expanding from 9.9 cubic metres (m^3) in 1960 up to 20.7 milllion m^3 in 1994.[1,2]

A similar trend is apparent in Ontario's production of raw, unprocessed logs or "industrial roundwood," most of which is allocated for softwood pulp and sawlogs; between 1970 and 1994, annual roundwood production increased by more than 62%, from a volume of 16 million cubic metres up to almost 26 million cubic metres.[2,3]

New logging technology: A feller forwarder at work

This increase in the rate and intensity of logging was not matched by an increase in employment in the forest industry. In fact, the opposite is true.

There has been a steady decline in employment in Ontario's logging industry over the past 30 years. In 1965, there were 10,824 workers in the industry. By 1993 that number had been cut almost in half, falling to 5,550.[4,3]

Technological change in the forest

More wood, fewer jobs

The reason for this job decline is at least partially related to a massive shift since the end of the Second World War in the way Ontario's forests are harvested.

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Where Have All the Loggers Gone?

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Immediately after the war, a gasoline-powered chainsaw was developed that could be operated by a single person. The daily productivity — and the earnings — of an experienced cutter could be increased by as much as 190% through the use of a chainsaw. As a result, by the mid-1950s, virtually all woods workers in Ontario had switched to chainsaws.[5]

The Multi-Operational Machine

New ways of cutting trees and jobs

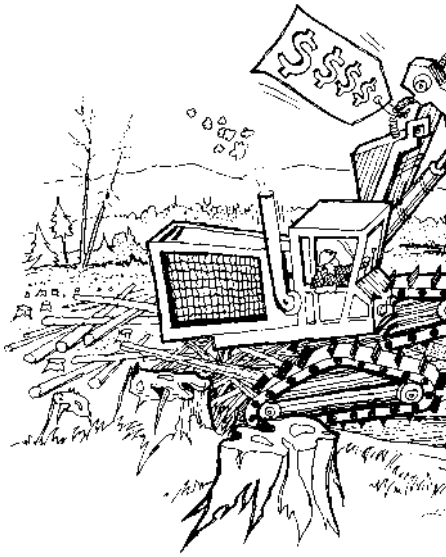
Logging companies were dissatisfied with chainsaws because there was no significant reduction in production costs — particularly in terms of labour. Loggers continued to be paid the same piece rate for each tree cut. As a result, the search for new technology switched to the elimination of material handling between steps of the logging process.

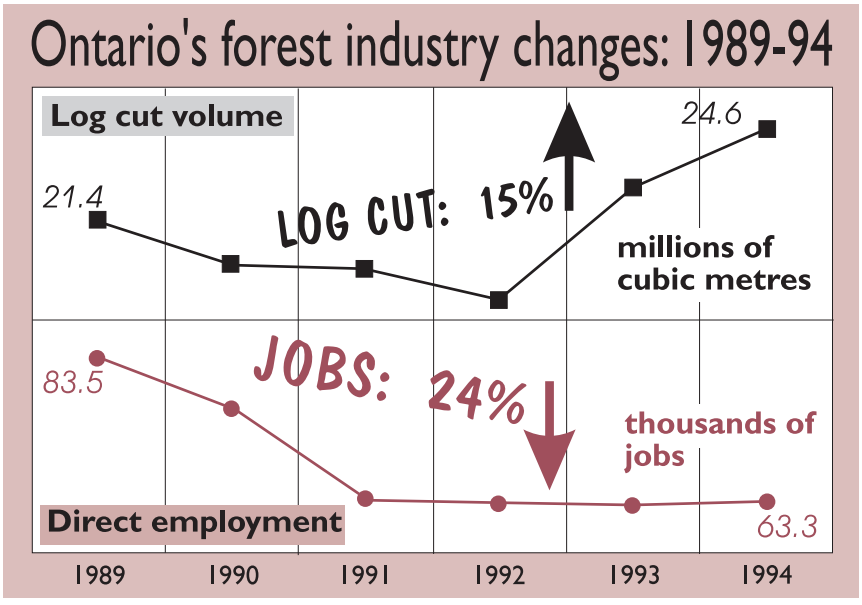
In 1957, manoeuvrable mechanical skidders were being tested to replace teams of horses and their handlers.[5]

The continuing search for savings in production costs led to the concept of "multi-operational" equipment. By 1959, a machine called a Feller Buncher had been developed. It was a vehicle outfitted with special claw attachments, two hydraulically driven chainsaws and a rear carrying platform. One operator could move to a tree, grab the trunk with the claws, notch it with one chainsaw and fell it with another, load the tree onto the platform and transport a full load of tree-lengths to a designated location for further processing.[5]

By 1970, the even more advanced Koehring Short-Wood Harvester could replace a whole crew with one person. The operator could direct the Short-Wood Harvester to cut designated trees within a radius of 40 feet, feed the trees through an automatic limbing and shearing tower and load the partially barked, eight-foot bolts into a massive three-cord capacity cradle carrier.[5]

In the 1990s, "intelligent" computer-aided harvesting heads and telescopic booms advertise "the advantage of a one-button [ie. one person] operation to measure diameter, calculate the optimum length, delimb, cut and continue the operation until the tree is fully harvested."[6]





Source: Price Waterhouse. The Forest Industry in Ontario, 1991. Ibid 1994

Labour Savings and Job Reductions

The 'modern' forest

'High-tech' machines like these provided dramatic savings in labour for tree harvesting operations. In 1970, the Drott Manufacturing Co. advertised a Feller-Buncher that could replace 12 skilled chainsaw-equipped sawyers with one operator.

In the late 1970s, Koehring Canada estimated that two of its Short-Wood Harvesters, with an eight-

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Who's driving who?

High-tech harvesting machines can replace dozens of forest workers operating chainsaws. But these machines are costly to buy and costly to run. For best results (and highest profit rates) they usually require large-scale clearcutting operations.

Are we choosing what is best for loggers and forests . . . or only what is best for machines?

ILLUSTRATION BY CHARLES DREVER

person crew operating 24 hours a day, 6 days a week for 9 months could deliver the same volume of wood to the roadside as — 30 years earlier — 300 bushworkers could produce in 7 months.[5]

Organizing Production Around Machinery

The cost of mechanization

However, labour-saving devices do have a cost. Before 1945, the total annual capital invested in machinery and equipment by the Canadian logging industry was never more than $37.1 million; by 1970, that figure had increased more than 16 times to $621 million (figures adjusted to 1961 dollars).[5]

Industry's high capital investments have provided a powerful incentive to redesign harvesting practices. To suit the expensive new machinery, operations often continue around the clock and throughout the year.

In the interests of maximizing efficiency for machinery, a cost-effective technique of high-volume logging is required. The method most suited to this harvest approach is large-block and serial clearcutting.

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Complete references available upon request

1965-93 Employment in the logging sector dropped 49% from 10,824 to 5,550.[4, 3]

1970-94 Annual volume of lumber produced almost tripled from 2 million cubic metres to 5.8 million cubic metres.[3]

1965-94 The average annual harvest increased from 136,000 ha to 209,700 ha.[1, 2]

1970-94 The use of clearcutting for harvesting increased from 70% of the total cut to 91%.[2]

The Forest Diversity◆Community Survival Project

This fact sheet is the first in a series addressing the vital connection between economically viable communities and healthy forest ecosystems in Ontario.

There is a persistent myth that the people of Ontario must choose between protecting our jobs or protecting our forests. But employment and a liveable world can't be so neatly separated. In reality, healthy forest ecosystems are often the very foundation of vibrant community economies.

Treated with care, well-functioning, biologically diverse forests can sustain communities for generations into the future. They can continue to nurture the vast range of plants and animals that provide raw materials for many of the commercial goods we use. They can continue to provide a basis for recreational activities that bring money and other resources into communities.

The argument that loggers only care about jobs while environmentalists only care about trees ignores the many areas of common interest between resource-dependent communities and forest conservation advocates. It is critical that we begin working together to develop solutions to sustain communities and protect forests which will benefit BOTH the economy AND the environment.

To aid that dialogue, the Wildlands League has produced this series of fact sheets through a project called Forest Diversity ◆ Community Survival. We hope the information will be useful in developing economically sound approaches to forest stewardship in Ontario that can help to ensure sustainable economies, and sustainable communities.

● ***In this series:***

#1 Where Have All the Loggers Gone?
#2 Cutting the Future Out of Prosperity?
#3 A New Appetite in the Forest
#4 Undercutting Our Natural Capital
#5 Biodiversity at the Crossroads
#6 Ecological Forestry ... A Cut Above
#7 Crafting More Jobs with Less Wood
#8 Nurturing Diversity Through Ecotourism
#9 Planting the Seeds of a New Forest Economy
#10 Bringing People and Forests Together

Forest Diversity ◆ Community Survival is a project initiated by the **Wildlands League**, and financially supported by the Richard Ivey Foundation and Ontario Hydro. For more information, mail or fax this coupon.

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*The **Wildlands League**, an Ontario chapter of the Canadian Parks and Wilderness Society, has been working for 30 years to promote forest protection and sustainable forest-management practices in the province.*

FACT SHEET #1