

Canadian loggers once believed that the forests would replenish themselves forever. That state of mind has led to overharvesting and the need for drastic cutbacks.

# Growth fells the foresters

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**LOG OFF** *Canada's timber industry faces a painful future because it has systematically and deliberately harvested forests faster than they have been growing.*

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*The day will come, and it will not be long, when the people of this province can, with pride of achievement, hand down to their sons, and their son's sons for all time to come, the wealth and benefits of our forest land in all its growing beauty.*

— from the 1945 report of the Royal Commission on British Columbia's Forest Resources.

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Thursday, October 21, 1993

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CANADA'S major timber-producing provinces have long claimed to manage forests according to a principle known as "sustained yield," whose stated goal is a perpetual harvest that provides economic stability.

So it comes as a shock to learn that the nation's forest industry is fast approaching a deep and painful cutback.

One region after another is finding that it can no longer sustain its yield. Loggers and mill workers in dozens of B.C. towns such as Port Alberni and Powell River are losing jobs they once believed were guaranteed by the eternal replenishment of the forest. They and their counterparts across the country are asking the same question: What went wrong?

In retrospect, sustained-yield management — the product of B.C.'s 1945 royal commission — has fulfilled neither of its promises. Harvests haven't been consistent, and the communities doing the work haven't seen stability.

For example, the volume of wood cut in B.C. has increased enormously, though with wild fluctuations year to year in response to market demands.

It's true that cutting increased partly because of the ingenuity of the timber producers. When the policy of sustained yield was introduced, there was a surplus of available timber in undeveloped regions. And over the years, producers have found ways to process the small trees, low-quality species, defective pieces and the tops and stumps formerly left behind.

Ironically, the producers' efficiency has had a negative impact: The industry has grown too big for its own good. Now that cutbacks are needed, the B.C. Ministry of Forests is having a hard time explaining the problem to forest companies and to the public.

In the search for someone or something to blame, everyone can find a scapegoat. But the current problem has nothing to do with inadequate reforestation, as is often claimed, and very little to do with the creation of parks and wilderness areas (although this obviously has a local impact in such places as the Queen Charlotte Islands and Clayoquot Sound). Nor is it due to bad logging practices, inadequate fire protection or global warming.

The real problem is that companies have been systematically — and deliberately — harvesting forests more rapidly than they have been growing.

There is a paradox implicit in this practice: It is a necessary step in the conversion of natural forests to ones that are managed for a sustainable yield.

Forests left in a wild state for centuries achieve an equilibrium in which growth is offset by destruction from age, insects, disease and fire. There is no *net* growth. So when industry begins to harvest, it's inevitable that the forest inventory loses more than it can replace.

The ultimate goal of sustained yield calls for the restructuring of forested areas into a succession of age classes, so that enough trees reach cutting age each year to maintain the harvest.

For example, a 100-hectare forest in which trees are cut when they are 100 years old must have one hectare of each age (from one to 100) so that every year a mature hectare can be cut. Creating this kind of forest requires the gradual removal of the original stock, so that an even progression of ages can follow in its wake.

However, forests that have been growing for centuries usually contain bigger trees and more wood per hectare than can be expected in second-growth stands. So, after

companies log what is left of the virgin timber, they then must reduce their harvesting to the rate of regrowth — a transition that foresters call "falldown."

B.C.'s forestry community was alerted to the coming falldown by a 1976 royal commission. But the decline has been continually postponed because the industry has expanded into poorer and more remote forests and learned to extract more from the areas it cuts.

Until recently, the need to reduce the harvest seemed

so remote that most people simply ignored it. This short-sightedness includes the government, which has granted licences that allow timber companies to continue cutting at current rates well into the future.

At present, the allowable annual cut for the entire province is about 75 million cubic metres. A falldown of 25 to 30 per cent, and significantly more in some areas, is expected before a truly sustainable regime is established. The impact will be greatest, and come soonest, in the regions most heavily exploited already, such as Vancouver Island, the Lower Fraser Valley and the Prince George area.

Not surprisingly, the reductions are being resisted by the timber companies — their supply of raw material is at stake — and there is plenty of scope for argument. The industry contends that official estimates of growth rates are too low, that cutbacks wouldn't be necessary if the government would spend more on silviculture, and that continuing advances in technology and timber utilization will enable harvest rates to be maintained.

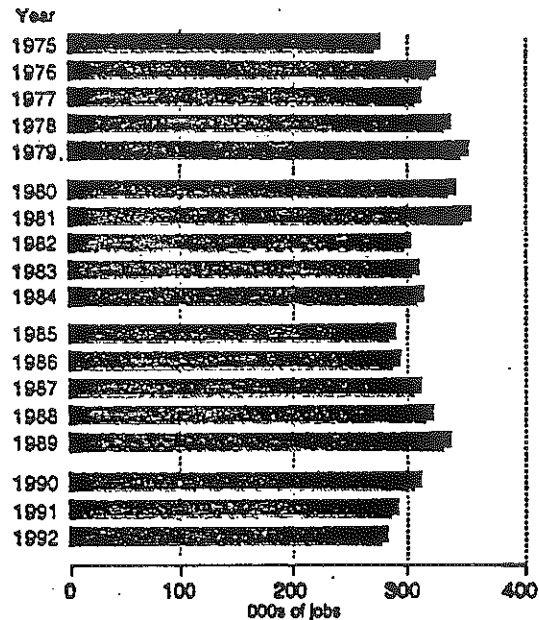
There is something to these arguments. There is also a hefty dose of wishful thinking. Foresters are confident they could increase yields substantially: Sweden's careful tending of its forest produces growth rates much higher than Canada's. But such intensive silviculture would cost billions. Who would pay for it?

In Canada, governments rely heavily on the companies holding forest licences to manage the resource, but those licences are too insecure to encourage private investment in silviculture. And it is unlikely, especially in the current economic climate, that the public will foot the bill.

Given all this, Canada faces the prospect of a significantly reduced harvest in the next few decades. Recent developments have aggravated the problem in British Columbia:

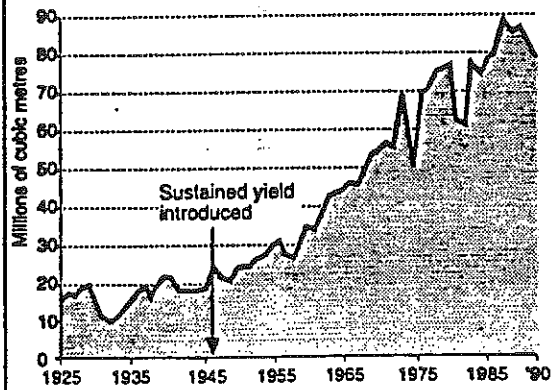
## WOOD WORKING

Employment in forestry-related industries has slipped by almost 60,000 since 1989. Is it just another cycle related to the recession and soft foreign markets? Or is it an omen of what's to come when the last of the original growth has been cut?



## WOOD CUTS

The exponential growth of B.C.'s annual timber harvest shows what happens when employment levels are maintained even though modern technology has made each worker far more productive: an accelerated exhaustion of the natural resource.



• Greater automation is rapidly eroding employment in the industry. In the bush, one person operating a modern harvester can match the output of an entire crew of lumberjacks with chainsaws. And lumber mills have added much labour-saving equipment as well.

• Vast tracts in the Interior have been ravaged by the mountain pine beetle and other insects, prompting a greatly expanded harvest to salvage the timber before it decayed. Now those who were hired are being let go.

• Responding to environmental pressures, the Ministry of Forests recently applied many new restrictions on logging operations — smaller and more dispersed clear-cuts, protective strips along stream banks, wildlife corridors, esthetic prescriptions — forcing an even greater and earlier reduction in harvest rates than previously anticipated.

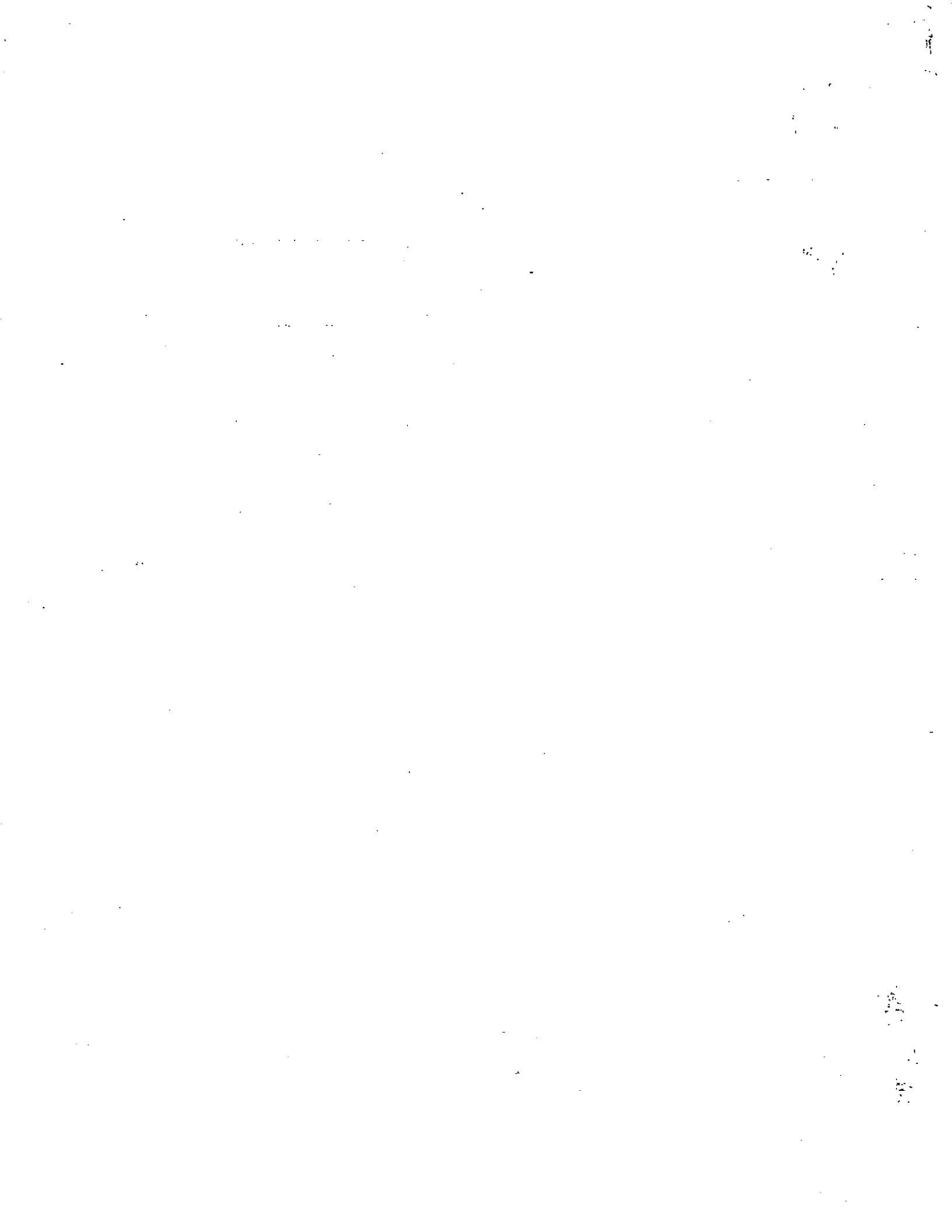
The economic implications of these new circumstances are ominous, as are the political ones.

On one hand, the industry, worried that the harvest will be trimmed unnecessarily, demands that it be consulted. On the other, the chief forester is being challenged in court by environmental advocates who claim he broke the law in setting cutting rates too high.

What can be done? Some measures could soften the blow. Using more of the wood now left to waste, salvaging trees thinned from young stands, practicing better silviculture, and adopting more discriminating environmental controls would all help.

But reductions can't be avoided. Because the problem ultimately affects the entire country, the decisions that must be made should not be left to industry and government. The options and their implications should be presented to the public in simple, straightforward terms so that people in resource-based communities can come to grips with their choices.

*Peter H. Pearse is a natural-resource economist at the University of British Columbia who conducted a royal commission on B.C.'s forest resources in the 1970s.*



GROWTH FELLS THE FORESTERS

QUESTIONS

1. FROM THE TEXT BOOK P356 DEFINE "SUSTAINED YIELD"
  
2. ACCORDING TO THE ARTICLE " GROWTH FELLS THE FORESTERS " WHAT IS THE STATED GOAL OF SUSTAINED YIELD?
  
3. WHAT WILL EVENTUALLY HAPPEN TO JOBS IN ANY RESOURCE INDUSTRY IF THE PRINCIPLE OF SUSTAINED YIELD IN NOT FOLLOWED OR EXECUTED ACCURATELY?
  
4. THE SUSTAINED YIELD CONCEPT WAS DEVELOPED IN B.C. IN 1945, BUT SINCE THEN, THE VOLUME OF WOOD CUT HAS INCREASED ENORMOUSLY. CANADA'S TIMBER INDUSTRY FACES A PAINFUL FUTURE BECAUSE IT HAS SYSTEMATICALLY AND DELIBERATELY HARVESTED FORESTS FASTER THAN THEY HAVE BEEN \_\_\_\_\_.
  
5. THE FOLLOWING EXPLANATIONS OF BLAME (WHO AND WHAT IS RESPONSIBLE FOR THE LOSS OF THE PERPETUAL HARVEST) FOR THE LACK OF AN EFFECTIVE SUSTAINED YIELD POLICY ARE OFTEN GIVEN AS:
  - A)
  
  - B)
  
  - C)
  
  - D)

E) \_\_\_\_\_

6. FORESTS LEFT IN THE WILD STATE FOR CENTURIES ACHIEVE AN EQUALIBRIUM IN WHICH GROWTH IS OFFSET BY DESTRUCTION FROM:

A) \_\_\_\_\_

B) \_\_\_\_\_

C) \_\_\_\_\_

D) \_\_\_\_\_

7. THE ULTIMATE GOAL OF SUSTAINED YIELD CALLS FOR FORESTED AREAS TO BE DIVIDED INTO A SUCCESSION OF AGE CLASSES SO THAT THE AMOUNT OF TREES CUT EACH YEAR EQUALS THE AMOUNT OF \_\_\_\_\_ EACH YEAR.

8. ACCORDING TO THE HANDOUT, DEFINE THE TERM " FALLDOWN. "

9. WHAT ARE THE 2 MAJOR CAUSES OF RAPIDLY ERODING EMPLOYMENT IN THE FOREST INDUSTRY? (JOB LOSSES)

THESE 2 CAUSES MAY BE GROUPED TOGETHER AS AUTOMATION

A) \_\_\_\_\_

B) \_\_\_\_\_

10. WHAT RESTRICTIONS HAS THE MINISTRY OF FORESTS RECENTLY APPLIED ON LOGGING OPERATIONS?

A) \_\_\_\_\_

B) \_\_\_\_\_

C) \_\_\_\_\_

D) \_\_\_\_\_