

# QUÉBEC'S FOREST RESOURCES AND INDUSTRY

A STATISTICAL REPORT 2003 EDITION



# **SUMMARY**

## **QUÉBEC'S FOREST RESOURCES AND INDUSTRY**

**A STATISTICAL REPORT  
2003 EDITION**

**Design, research and text**

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We also invite you to visit the Ministère's Internet site at :

[www.mrnfp.gouv.qc.ca/](http://www.mrnfp.gouv.qc.ca/)

**Note**

The preparation of this report required the collaboration of all the administrative units within the Secteur des forêts and Forêt Québec. Unless otherwise indicated, the data are provided by the administrative unit of the ministère des Ressources naturelles, de la Faune et des Parcs with responsibility for the sector in question.

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## Foreword

Since Québec's forest system was first adopted in December 1986, the ministère des Ressources naturelles, de la Faune et des Parcs (MRNFP) has taken a number of concrete steps to consolidate its shift towards sustainable forest management. For example, in 1996 it amended the **Forest Act** and the **Regulation respecting standards of forest management for forests in the public domain**, and it also adopted various measures to ensure the protection of forest biodiversity. This ongoing process is vitally important, because Québec's forests are evolving constantly.

With the amendment of the **Forest Act** in June 1996, Québec confirmed its commitment to the principle of sustainable forest development in order to meet the economic, environmental and social needs of present and future generations while giving proper consideration to the other potential uses of the forest. Public and private forests must now be managed in a way that preserves biological diversity, conserves soil and water resources, and maintains or improves the condition and productivity of forest ecosystems.

The **Regulation respecting standards of forest management for forests in the public domain** was also overhauled to enable the MRNFP to comply with the resolutions formulated in its **Forest Protection Strategy**. For example, the revised regulation, in force since May 1996, prohibits all forms of logging except cutting with protection of regeneration and soils (CPRS) and substantially reduces the size of single-block cutting areas. The new regulation will facilitate the environmental certification of Québec's forest products, which is vital to our industry.

The MRNFP has also published a report on Québec's forest biodiversity, in which it undertook to enhance knowledge of the forests, provide better protection for fragile and exceptional ecosystems, and continue to apply the **Forest Protection Strategy**. To meet these commitments, it is currently developing a new approach to the maintenance of biodiversity in forest landscapes. The next five-year report on the state of Québec's forests will provide an update on the progress made in each of these areas.

The MRNFP has recently taken another crucial step in the development of its methods, with its review of the current forest system (Bill 136, An **Act to amend the Forest Act and other legislative provisions**, was adopted by the National Assembly on May 21, 2001). The proposed amendments were formulated following extensive public consultations and reflect the contributions of all players with an interest in sound forest management. The Act substantially improves forestry practices by addressing two components of forestry policy for which improvements had been promised, namely public participation and cooperation between different users of the forests.

Furthermore, in keeping with its mission, the MRNFP continues to make different tools available to anyone interested in the forests, including this document. As in past years, the 2003 edition of **Québec's Forest Resources and Industry** contains a **succinct statistical report** on Québec's forest sector. However, this year we have made some minor changes to the content. For example, we added a new chapter dealing with the use of non-timber matter, i.e. non-timber forest products (NFTPs), and the survey chapter data are drawn exclusively from the third ten-year forest survey (except for the Magdalen Islands data, which are drawn from the second survey).

The full version of **Québec's Forest Resources and Industry** is available in French only, in **PDF** and **Excel** formats on the MRN's website at : <http://www.mrnfp.gouv.qc.ca/forets/connaissances/connaissances-statistiques.jsp><sup>1</sup>. To facilitate research, French-language and English-language summaries, containing the highlights of each chapter along with the principal maps and tables, are also available on the same website.

We hope you find this year's report as useful as past editions and, as always, we welcome your comments.

1. The full version is updated regularly, and we invite you to obtain the most recent data by consulting it on a regular basis.

## Note to readers

The full version of this document (in French only) can be obtained from the website of the Ministère des Ressources naturelles, de la Faune et des Parcs ([www.mrfp.gouv.qc.ca](http://www.mrfp.gouv.qc.ca)) by clicking on the **Forêts, Connaissances forestières et environnementales** and **Statistiques forestières** tabs, and then selecting **Complète**. In the Excel version, the tabs appearing at the bottom of the screen provide access to the various sheets.

Readers wishing to use the data contained in this publication should bear in mind the changes made to some of the tables illustrating statistical trends. An attempt to compare this year's tables with those of previous years may be difficult and lead only to confusion. In the Excel version, some data may appear to be cut off, due to on-screen column widths. To remedy this problem, use the PDF version or simply print the file instead of consulting it on screen.

For further information, please contact the author, Blaise Parent, at (418) 627-8644, extension 4112.

## Symbols Used in the Tables and Diagrams

.. : Data not available

.... : Data not shown

p : Provisional data

r : Revised data

e : Estimate

x : Confidential

## Symbols used

bd ft: board foot

BDMT: bone-dry metric ton

cm : centimetre

cm<sup>3</sup> : cubic centimetre

dm<sup>3</sup> : cubic decimetre

FSPL : fir, spruce, jack pine, larch

G : billion

ha : hectare

hl : hectolitre

kg : kilogram

km : kilometre

km<sup>2</sup> : square kilometre

L : litre

lb : pound

m : metre

m<sup>2</sup> : square metre

m<sup>3</sup> : cubic metre

M : million

mt : Metric ton

NAICS : North American Industry Classification System (Statistics Canada's new 2000 structure)

n.e.s. : not elsewhere specified

ngrv : nominal gross raw volume

no. : number

sq.ft. : square foot

t : ton

" : inch

% : percent

\$ : dollar

DM : Deutsche mark

£ : pound sterling

¥ : Yen

## Conversion factors

1 cord of wood = 85 solid cubic feet = 2.41 cubic metres

1 cunit = 100 solid cubic feet = 2.831 cubic metres

1 board foot (bd ft) = a piece of wood 1 inch thick by 1 foot wide by 1 foot long

1 000 board feet (bd ft) = 2.36 cubic metres (net value)

1 cubic metre = 423.7 bd ft = 35.3 cubic feet = 0.353 cunits = 1.5 stacked cubic metres

1 metric ton (long ton) = 1 000 kilograms = 2 205 pounds

1 Imperial ton (short ton) = 2 000 pounds

1 square kilometre = 100 hectares = 0.386 square miles

1 hectare = 2.47 acres

**N.B.:** In the full version of the text, each table, chart and map has been assigned a reference code, which is indicated in the upper right-hand corner. The first two figures of the code correspond to the chapter, the next two to the section and the last two to illustration. For example, code **02.01.03** designates the third illustration of the first section of chapter 2. The codes in the summary version are the same as those in the full version, so that readers can locate the different elements easily in the original document. As a result, the numbering is not sequential.

# **GLOSSARY OF THE MAIN ECONOMIC TERMS USED IN THE TEXT**

## **Establishment**

The smallest operating unit, generally a mill or factory, able to provide data on its inputs, outputs and activities for calculation of added value.

## **Total jobs**

Positions related to production or to non-manufacturing activities in an establishment (cafeteria, head office, administration or sales). Also includes jobs generated by new construction, repairs or major alterations. Ownership and active partnership positions, which are not considered as salaried positions, are not included in the total jobs figure.

## **Total salaries and wages**

Amounts allocated for compensation of all the salaried and non-salaried employees of an organization.

## **Value of shipments and other income**

Value of shipments of company-specific products plus income obtained from non-manufacturing activities such as the sale of goods purchased and resold without processing, the book value of construction and capital work carried out by the establishment's personnel, for its own use, the cafeteria, etc.

## **Value added to total activity**

Value added in the manufacturing activity, plus added value from non-manufacturing activities. This latter figure is obtained by subtracting from gross non-manufacturing production all purchases of goods for resale without processing (taking into account the net stocks variable for those goods), purchases of materials and supplies used in new construction or the production of machinery and tools for use by the establishment, and office supplies purchased and used by the establishment in a non-manufacturing activity.

## **Capital Expenditures**

Capital expenditures include the cost of acquiring, constructing and installing plant, materials and sustainable tools, whether for replacement or rental.

## **Maintenance and repairs**

Amounts paid to maintain works, materials and tools in good condition. They are not considered to be capital expenditures and are indicated separately.

## **GLOSSARY OF THE MAIN ECONOMIC TERMS USED IN THE TEXT (CONT'D)**

### **Constant dollars**

Dollars in a reference year used as a basis for converting dollars from other years, to eliminate the impact of fluctuations in purchasing power. The conversion is made using a price index.

### **Balance of trade**

The difference between the monetary value of exports and imports of merchandise, goods and services. If a country exports more than it imports, its balance of trade is positive. If it imports more than it exports, its balance of trade is negative.

### **National exports**

Products grown, extracted or manufactured in Canada and sold to other countries, including products from foreign sources that are processed in Canada.

### **Shipment**

Shipment of merchandise (goods) to a domestic or foreign destination.

### **Imports**

All merchandise introduced into a country, whether for immediate consumption or storage.

### **Selling price index**

An index showing variations in the general rate of inflation or price variations in a given economic sector, compared with a reference year to which a value of 100 is assigned.

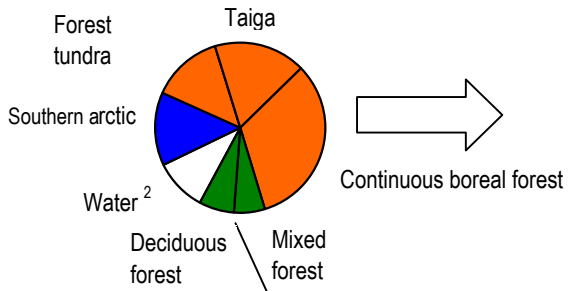
### **Gross domestic product (GDP)**

The value of all final goods and services produced in a given period within the geographical boundaries of a country or territory.

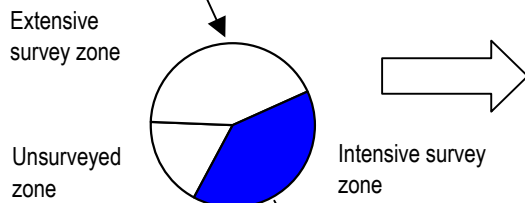


# Summary

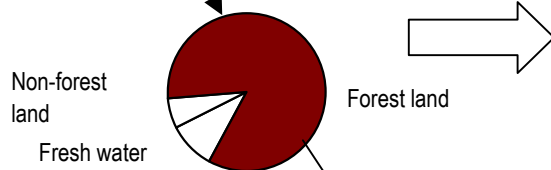
**Total area of Quebec<sup>1</sup>: 1 667 441 km<sup>2</sup>**



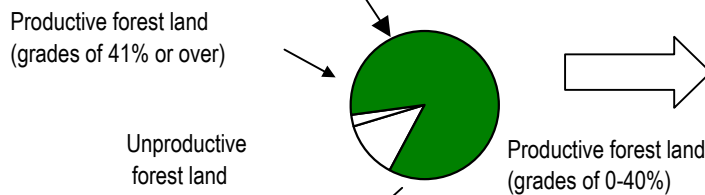
Vegetation zones and subzones <sup>3</sup>		1 514 100 km <sup>2</sup>
(according to the 1998 ecological classification)		
• Arctic	• Southern arctic	236 000 km <sup>2</sup>
• Boreal	• Forest tundra	217 100 km <sup>2</sup>
	• Taiga	299 900 km <sup>2</sup>
	• Continuous boreal forest	551 400 km <sup>2</sup>
• Northern Temperate	• Mixed forest	98 600 km <sup>2</sup>
	• Deciduous forest	111 100 km <sup>2</sup>



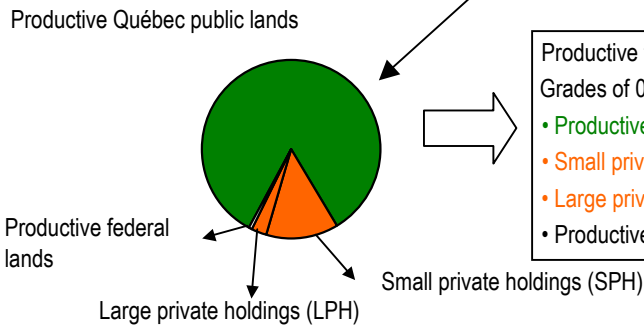
Land area <sup>4</sup>		1 497 749 km <sup>2</sup>
• Unsurveyed zone		267 321 km <sup>2</sup>
• Extensive survey zone		638 879 km <sup>2</sup>
• Intensive survey zone		591 549 km <sup>2</sup>



Intensive survey zone <sup>5</sup>		591 549 km <sup>2</sup>
• Fresh water	(-) 58 302 km <sup>2</sup>	
• Non-forest land	(-) 34 894 km <sup>2</sup>	
• Forest land		498 353 km <sup>2</sup>



Forest land		498 353 km <sup>2</sup>
Unproductive forest land	(-) 62 838 km <sup>2</sup>	
Productive forest land		435 515 km <sup>2</sup>
• Grades of 41% or over		11 401 km <sup>2</sup>
• Grades of 0-40%		424 114 km <sup>2</sup>



Productive forest lands		424 114 km <sup>2</sup>
Grades of 0-40%		
• Productive Québec public lands		355 004 km <sup>2</sup>
• Small private holdings (SPH)		55 306 km <sup>2</sup>
• Large private holdings (LPH)		10 940 km <sup>2</sup>
• Productive federal lands		2 864 km <sup>2</sup>

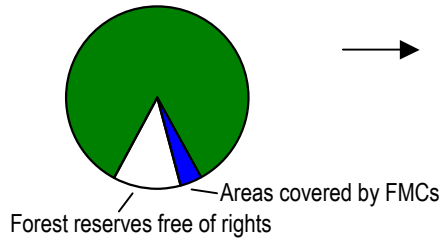
Merchantable volume		3 786 833 300 m <sup>3</sup>
		3 118 850 100 m <sup>3</sup>
		546 098 600 m <sup>3</sup>
		91 471 900 m <sup>3</sup>
		30 412 700 m <sup>3</sup>

- Area obtained from a compilation of Québec border data to a scale 1:20 000, calculated using the Modified Transverse Mercator (MTM) system and the NAD83 geodesic reference system. Excludes Labrador, in accordance with the 1927 (non-definitive) boundary.
- Includes the waters of the St. Lawrence River downstream of the eastern point of Orleans Island, the Gulf of St. Lawrence up to the 1964 boundary with the Maritime provinces; also includes James Bay, Hudson Bay, Ungava Bay and Hudson Strait (153 313 km<sup>2</sup>)
- The limits of the bioclimatic domains have been revised by the Comité sur la carte des régions écologiques. The committee also established the new ecological land classification system in 1998 (includes inland waters but excludes the waters of the St. Lawrence River downstream of the eastern point of Orleans Island). The figures have been rounded off, possibly creating minor errors in the totals.
- Updated August 2003: The original territorial data are drawn from the third ten-year forest survey (except the Magdalen Islands, for which data are drawn from the second forest survey). This area also includes inland waters but excludes the waters of the St. Lawrence River.
- Lands whose forests can be developed over 120 years, in keeping with the principle of sustained yield.

## Summary (cont'd)

### Distribution of productive Québec public lands

Areas covered by TSFMAs



Productive Québec public lands  
(grades of 0-40%)

- Areas covered by timber supply and forest management agreements (TSFMAs) (March 31, 2002)
- Areas covered by forest management contracts (FMCs) (March 31, 2002)
- Forest reserves free of rights and areas where forest production is prohibited (RSFM<sup>1</sup>, parks, etc.)

355 004 km<sup>2</sup>

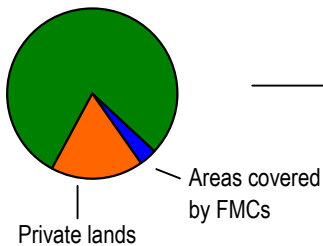
299 162 km<sup>2</sup>

13 040 km<sup>2</sup>

42 802 km<sup>2</sup>

### Surface areas taken into account in calculating the allowable annual cut (march 31, 2002)

Areas covered by TSFMAs



Québec public lands on which rights have been granted

- TSFMA
- FMC

Productive private lands taken into account in calculating allowable annual cut (grades of 0-40%)  
PH : 55 306 km<sup>2</sup>, LPH : 10 940 km<sup>2</sup>

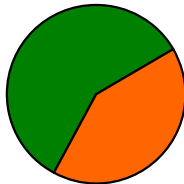
299 162 km<sup>2</sup>

13 040 km<sup>2</sup>

66 246 km<sup>2</sup>

### Allowable annual cut (march 31, 2002)

Allowable annual cut in public forests



Allowable annual cut in private forests

53 872 076 m<sup>3</sup>

Allowable annual cut - public forests  
(common areas)

- Fir, spruce, jack pine, larch
- Other softwoods
- Poplars
- Other hardwoods

41 903 326 m<sup>3</sup>

29 138 269 m<sup>3</sup>

1 328 600 m<sup>3</sup>

3 674 344 m<sup>3</sup>

7 762 113 m<sup>3</sup>

Allowable annual cut - private forests  
(large and small private holdings)

- Fir, spruce, jack pine, larch
- Other softwoods
- Poplars
- Other hardwoods

11 968 750 m<sup>3</sup>

4 639 650 m<sup>3</sup>

917 300 m<sup>3</sup>

2 311 600 m<sup>3</sup>

4 100 200 m<sup>3</sup>

### Volumes allocated by TSFMAs in the public forests (march 31, 2002)

35 182 077 m<sup>3</sup>

- Fir, spruce, jack pine, larch
- Other softwoods
- Poplars
- Other hardwoods

27 405 176 m<sup>3</sup>

855 736 m<sup>3</sup>

2 776 297 m<sup>3</sup>

4 144 868 m<sup>3</sup>

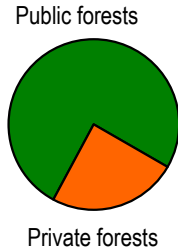
1. RSFM : Regulation respecting standards of forest management for forests in the domain of the State

## Summary (cont'd)

### Volumes allocated by FMCs in the public forests (march 31, 2002)

	553 266 m <sup>3</sup>
• Fir, spruce, jack pine, larch	380 870 m <sup>3</sup>
• Other softwoods	17 327 m <sup>3</sup>
• Poplars	90 355 m <sup>3</sup>
• Other hardwoods	64 714 m <sup>3</sup>

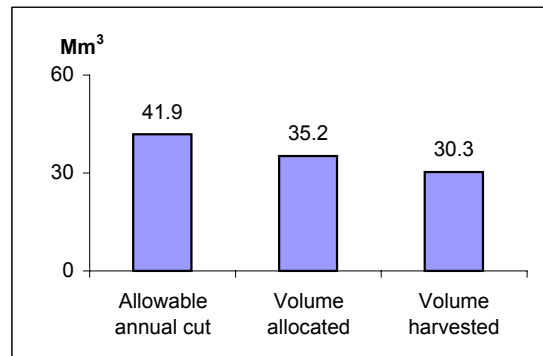
### Timber harvested - volume (2001-2002)



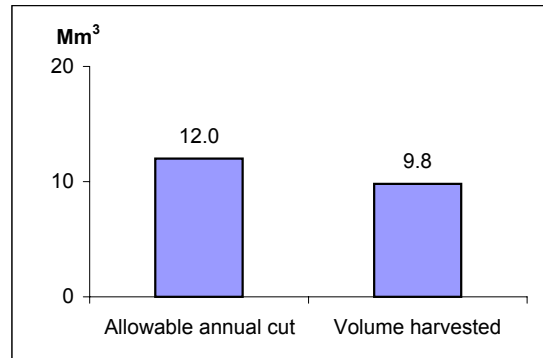
	40 149 200 m <sup>3</sup>
<b>Public forests</b>	<b>30 305 900 m<sup>3</sup></b>
• Fir, spruce, jack pine, larch	24 442 500 m <sup>3</sup>
• Other softwoods	694 700 m <sup>3</sup>
• Poplars	2 227 700 m <sup>3</sup>
• Other hardwoods	2 941 000 m <sup>3</sup>
<b>Private forests <sup>1</sup></b>	<b>9 843 300 m<sup>3</sup></b>
• Fir, spruce, jack pine, larch	4 023 200 m <sup>3</sup>
• Other softwoods	630 000 m <sup>3</sup>
• Poplars	1 834 300 m <sup>3</sup>
• Other hardwoods	3 591 998 m <sup>3</sup>

1. Estimates.

### Public forests (allowable annual cut, volume allocated, volume harvested) (2001-2002)



### Private forests (allowable annual cut, volume harvested) (2001-2002)



## Summary (cont'd)

### Forest protection (2001)

Area Affected (ha)		115 498
Spruce budworm		18 900
Hemlock looper		63 530
Forest fires	Intensive protection zone (mature stands : 990 ha)	1 358
	Limited forest protection	31 710

### Silvicultural treatments planned and carried out (2001-2002)

	Planned (ha)	Carried Out (ha)
<b>Public Forests</b>	<b>670 905</b>	<b>519 933</b>
Site preparation	59 021	45 329
Planting and seeding	49 192	62 508 (105 million seedlings)
Non-commercial treatments	167 137	107 768
Commercial treatments	395 555	304 328
<b>Private Forests</b>	<b>67 430</b>	<b>51 742</b>
Site preparation	...	9 218
Planting and seeding	12 591	12 316 (27 million seedlings)
Non-commercial treatments	7 618	20 558
Commercial treatments	47 221	9 651

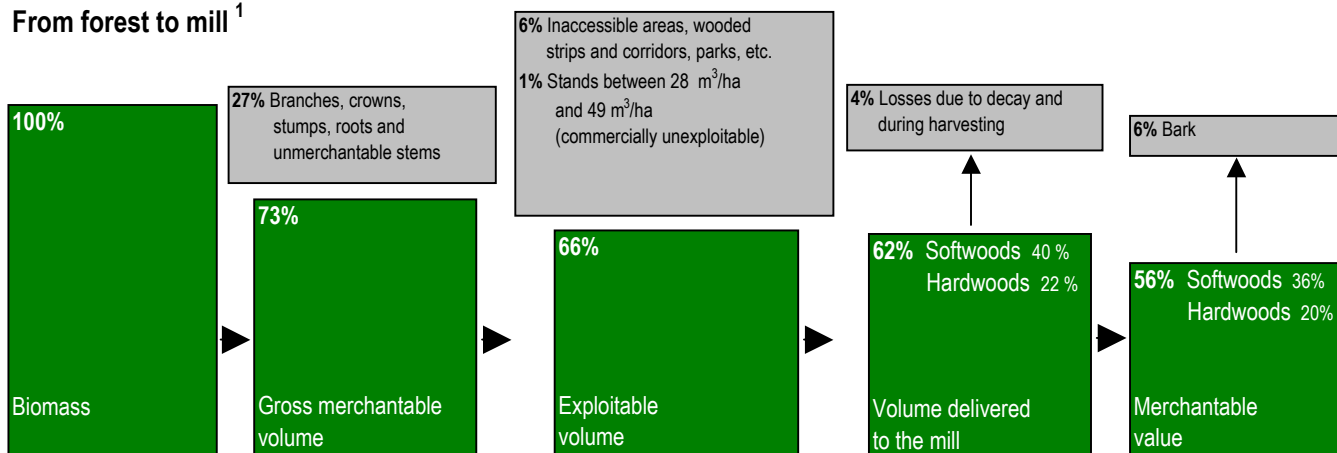
### Network of permanent roads (2001-2002)

Total length : 15 401 km (547 bridges)

### Experimental, teaching and research forests (2002)

Total area : 65 000 ha

### From forest to mill <sup>1</sup>



1. Updated December 1999.

### Timber consumption by primary processing plants

		2001	2002
<b>Total Consumption (m<sup>3</sup>)</b>		<b>69 665 844</b>	<b>71 624 000</b>
<b>Consumption by Species (m<sup>3</sup>)</b>	Fir, spruce, jack pine, larch	53 819 646	55 471 746
	Other softwoods	2 513 046	2 603 439
	Poplars	5 303 916	5 171 746
	Other hardwoods	8 029 236	8 377 175
<b>Consumption by Product (m<sup>3</sup>)</b>	Roundwood	44 221 175	44 604 693
	Chips	18 364 027	18 983 546
	Sawdust, shavings and wood residues	7 080 642	8 035 761
<b>Consumption by Source (m<sup>3</sup>)</b>	Public forests	30 714 759	31 297 300
	Private forests	8 342 011	8 198 368
	Exchanges between mills	23 439 309	24 593 780
	Outside Québec	7 169 765	7 534 552

## Summary (cont'd)

### The forest sector in Québec's economy (1999)

	Total Jobs (no.)	Total salaries and wages (\$, 000s)	Value of shipments and other revenue (\$, 000s)	Value added to total activity <sup>1</sup> (\$, 000s)	Capital expenditures and repairs (\$, 000s)
Forest operations (NAICS 113)	11 120	255 540	2 258 181	712 556	184 900
Manufacturing of wood products (NAICS 321)	43 827	1 274 378	8 416 296	3 559 714	603 800
Paper manufacturing (NAICS 322)	34 455	1 765 225	11 337 796	5 041 509	1 283 900
<b>Total</b>	<b>89 402</b>	<b>3 295 143</b>	<b>22 012 273</b>	<b>9 313 779</b>	<b>2 072 600</b>

1. Including purchase of services.

### Logging industry (2002)

Number of primary processing plants, including 1 200 sawmills	1 293
Number of pulp, paper and cardboard mills, 38 of which are included under primary processing plants	64

### Forest product production

	2001	2002
Lumber (m <sup>3</sup> , 000s)	19 018	18 177
Joint sawmill production (BDMT, 000s)	12 260p	12 506p
Chips	7 424p	7 546p
Sawdust and shavings	2 039p	2 128p
Bark	2 797p	2 832p
Pulp and paper production (BDMT, 000s)	9 613	10 032
Newsprint	3 558	3 726
Cardboard and paper other than newsprint	4 698	4 841
Market pulp	1 357	1 465

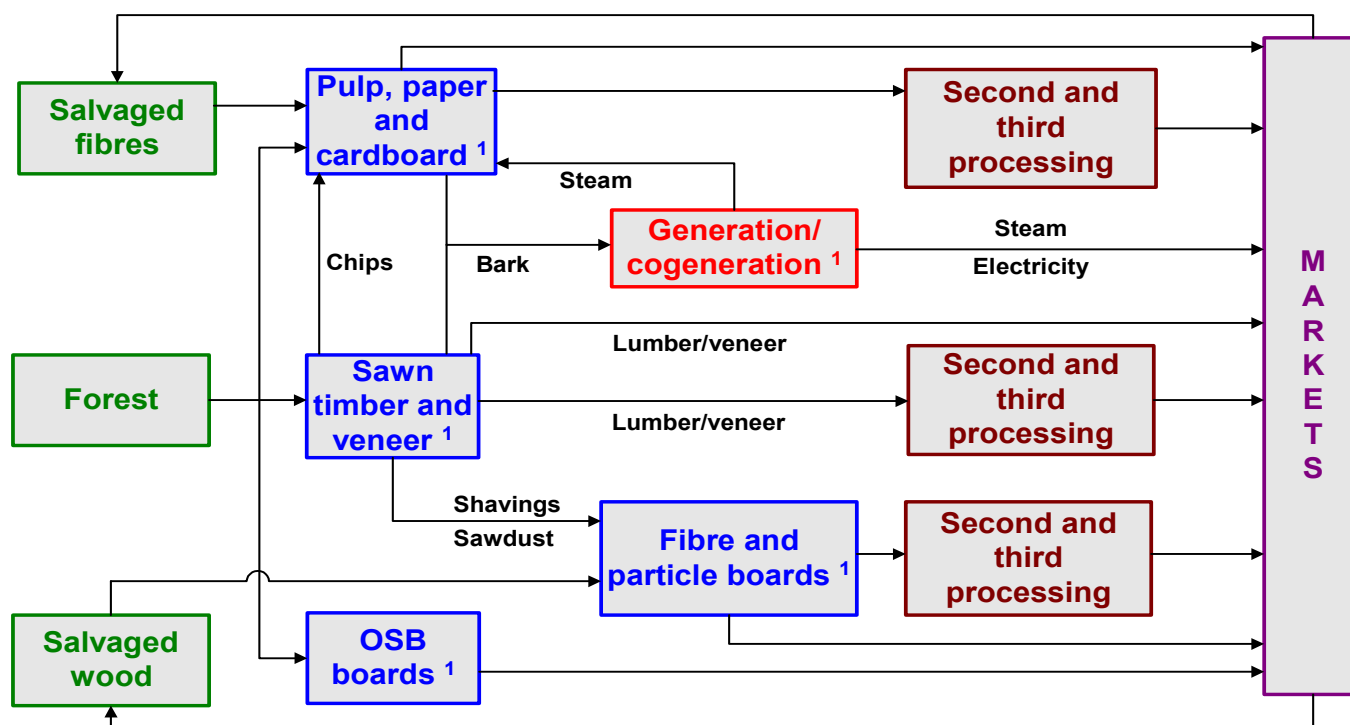
### Québec's balance of trade <sup>1</sup> in the forest products sector (\$, millions) <sup>2</sup>

	2001	2002
Wood, charcoal and wooden products	3 346	3 154
Pulp, paper and cardboard	7 035	6 309
<b>Total</b>	<b>10 381</b>	<b>9 463</b>

1. Based on customs data, according to the Standard Classification of Goods (SCG).

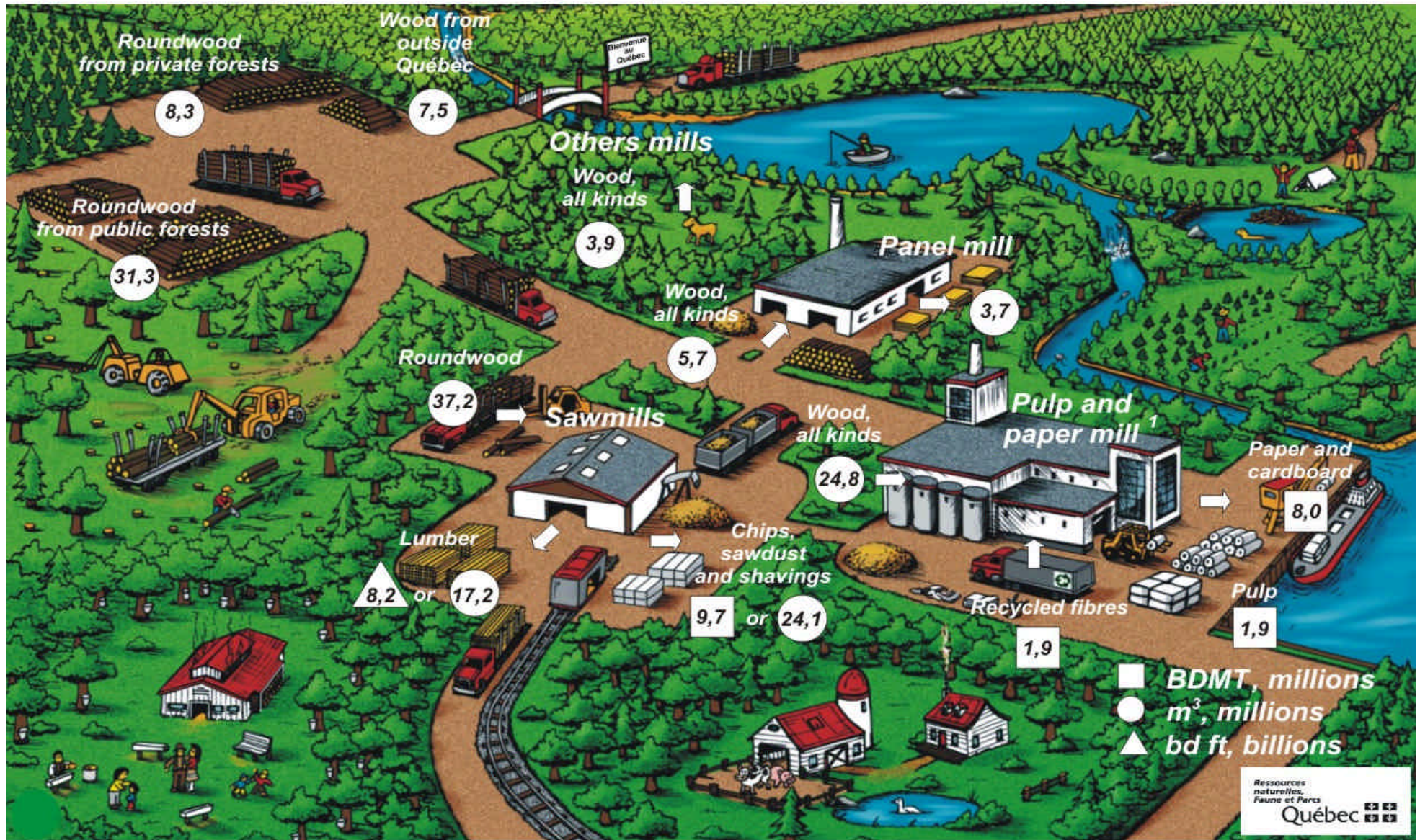
2. Product designation according to the World Custom Organization's harmonized Commodity Description and Coding System.

### Integration of the forest products industry



1. Primary processing.

# Supplies for Québec's primary wood processing industry (2002)



1. Including data from the 2002 annual survey.

## Supplies for Québec's primary wood processing industry (2002)

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### Supplies by source (m<sup>3</sup>, millions)

---

Public forests	31.3
Private forests	8.3
Outside Québec	7.5
<b>TOTAL</b>	<b>47.1</b>

---

### Mills consumption (m<sup>3</sup>, millions)

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Panel	5.7
Sawmills	37.2
Pulp and paper	24.8
Other mills	3.9
<b>TOTAL</b>	<b>71.6</b>

---

### Recycled fibres consumption (BDMT, millions) <sup>1</sup>

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Recycled fibres	1.9
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### Sawmills Production

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Chips, sawdust and shavings	9.7 (BDMT, millions)
	24.1 (m <sup>3</sup> , millions)
Lumber	8.2 (bd ft, billions)
	17.2 (m <sup>3</sup> , millions)

---

### Pulp and paper mill production (BDMT, millions) <sup>1</sup>

---

Paper and cardboard	8.0
Pulp destined for the sale	1.9

---

### Panel mills production (m<sup>3</sup>, millions)

---

Panel	3.7
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1. Including data from the 2002 annual survey.

# Québec's forest resources and industry

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- 4. Sustainable development of Québec's forests**
  - Highlights
  
- 5. Forest management**
  - Highlights
  - Allowable annual cut
  - Harvest
  - Forest dues
  - Seeding production
  - Summary of silvicultural treatments carried out
  
- 6. Forest use for educational, recreational purposes, research and experimental**
  - Highlights
  
- 7. Logging**
  - Highlights
  
- 8. Non-timber Use**
  - Non-timber forest products (NTFPs)**
  - Highlights
  
- 9. Timber use**
  - Highlights
  - Trade with markets outside Québec in 2001 and 2002
  
- 10. Wood industries**
  - Highlights
  - Overview
  - The sawmill industry
  
- 11. The pulp and paper industry**
  - Highlights
  - Production capacity
  - Production
  - Environment
  
- 12. The forest sector in Québec's economy**
  - Highlights
  - Economic and financial indicators



# 1 Geographical distribution of Québec's forests

## Highlights

01.00.01

Total area of Québec	(km <sup>2</sup> )
Total area	1 667 441 <sup>r</sup>
Land area <sup>1</sup>	1 497 749
Vegetation zones (according to the 1998 ecological classification) <sup>2</sup>	
• Arctic	236 000 <sup>r</sup>
• Boreal	1 068 400 <sup>r</sup>
• Northern Temperate	209 700 <sup>r</sup>



Types of ownership	(km <sup>2</sup> )
Public lands (Québec)	1 372 017
Private lands	116 398
Federal lands	9 334

1. Updated in August 2003: The original territorial data are drawn from the third ten-year forest survey (except for the Magdalen Islands data, which are still drawn from the second survey). This area also includes inland waters but excludes the waters of the St. Lawrence River.

2. The bioclimatic domain boundaries have been reviewed by the Comité sur la carte des régions écologiques, which also established the new ecological classification system in 1998 (including inland water but excluding the waters of the St. Lawrence River downstream of the eastern point of the Orleans island).

Public land use planning	(km <sup>2</sup> )
Public lands <sup>1</sup>	1 373 490
• Forest production prohibited	65 552
• Forest production allowed	86 830
• Forest production has priority :	367 856
- Forest and leisure area	6 650
- Forest production area	361 206
• Other resource production <sup>2</sup>	853 252

1. The areas were established from data gathered in 1997, and differ slightly from the areas measured during forest surveys. In particular, they have not been adjusted to reflect the latest modifications, including those resulting from sales of land, for example. Harmonization should be completed by 2003.

2. Area with mining sites, energy development sites, etc., north of the common area boundary.

Survey zones	(km <sup>2</sup> )
Intensive survey zone	591 549
Extensive survey zone	638 879
Unsurveyed zone	267 321

### Administration of public forests, (march 31, 2002)

	(no.)
Administrative régions	17
Common areas	114
Timber supply and forest management agreements (TSFMAs)	252
Forest management contracts (FMCs)	72

### Management of private forests (march 31, 2001)

Development agencies (no.)	17
• Productive area (ha, 000s)	6 667
• Number of owners	129 850
• Number of owners in activity	74 015
Syndicates of wood marketing boards (no.)	15

### Forest cooperatives (2000-2001)

Forest cooperatives (no.)	50
Members (no.)	3 670
Workers (4 weeks or over)	5 704
Silvicultural work (ha, 000s)	83 971
Harvest (m <sup>3</sup> , 000s)	5 900
Turnover (\$, millions)	416

**Arctic zone**

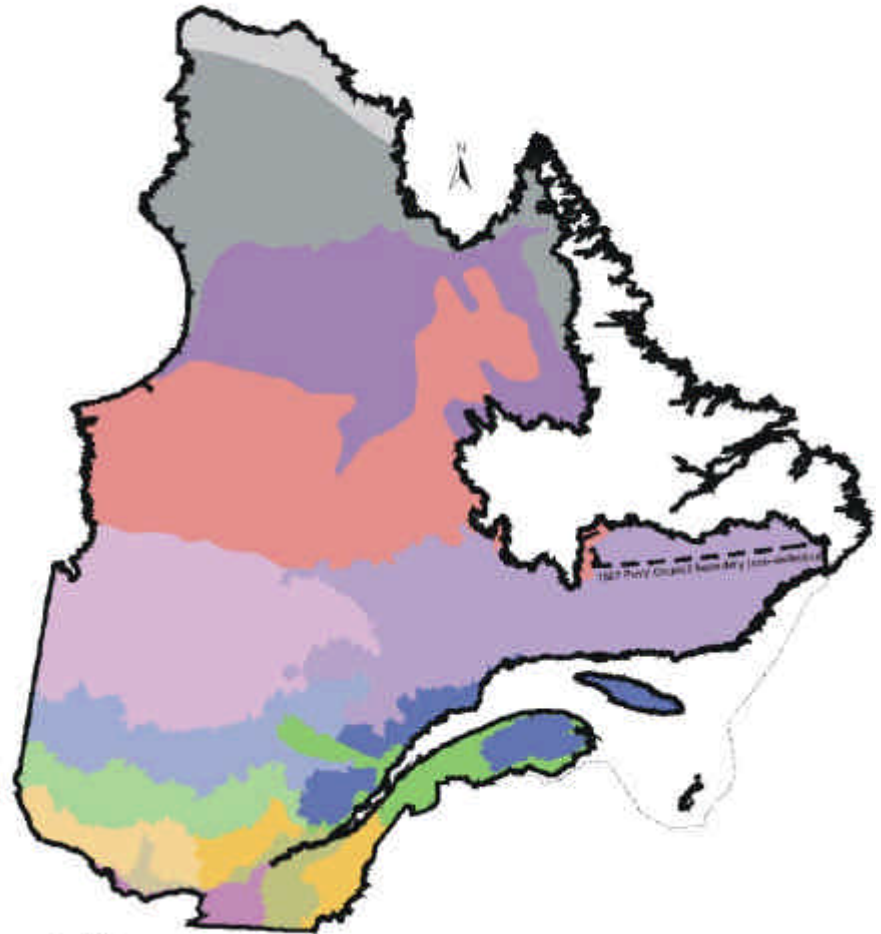
- Southern arctic subzone
- Herbaceous arctic tundra domain
- Shrub arctic tundra domain

**Boreal zone**

- Forest tundra subzone
- Forest tundra domain
- Taiga subzone
- Spruce-lichen domain
- Continuous boreal forest subzone
- Spruce-moss domain
- Balsam fir-white birch domain

**Northern temperate zone**

- Mixed forest subzone
- Balsam fir-yellow birch domain
- Hardwood forest subzone
- Sugar maple-yellow birch domain
- Sugar maple-basswood domain
- Sugar maple-bitternut hickory domain



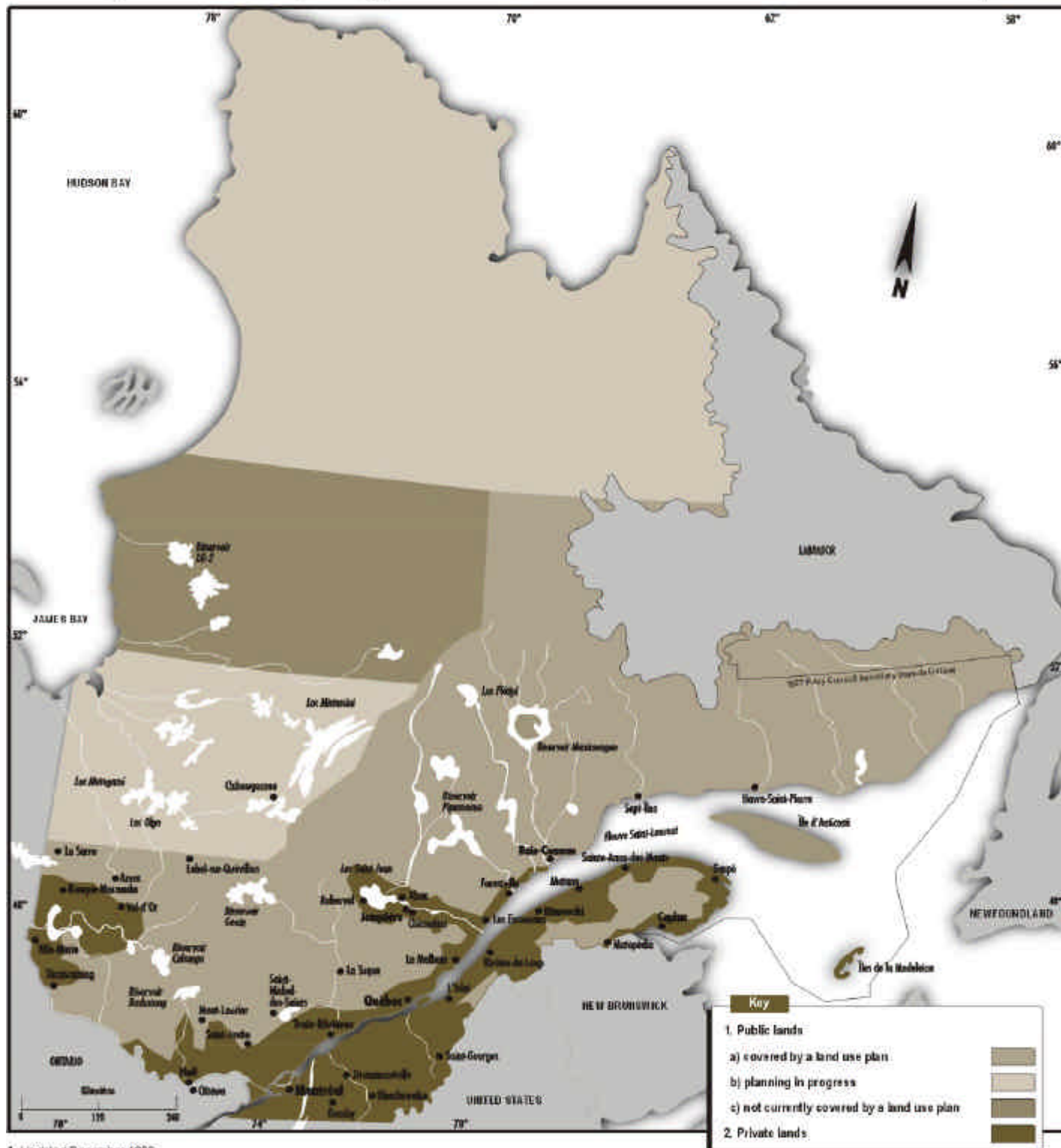
Source: Direction des inventaires forestiers, division écologie - productivité.

# 1 Geographical distribution of Québec's forests

## Public land use planning

### Areas subject to the land use planning process <sup>1</sup>

01.03.01



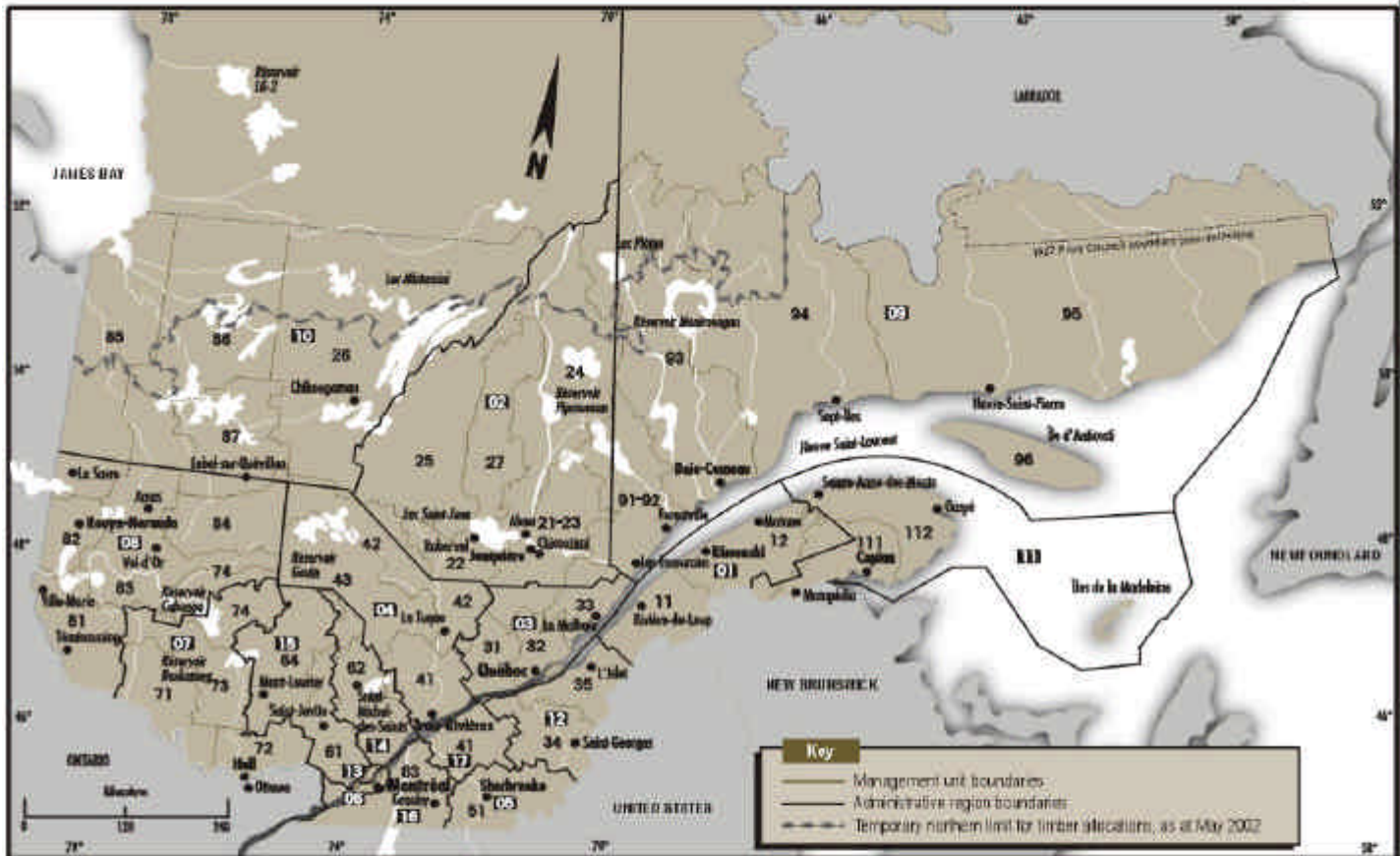
<sup>1</sup> Updated December 1999

Sources : Direction générale de la gestion du territoire public and  
Service du développement et de l'intégrité du territoire

# 1 Geographical distribution of Québec's forests

## Administrative divisions in Québec's public forests <sup>1</sup>

01.05.02



Key	
<b>Administrative regions</b>	<b>Management units</b>
01 Bas-Saint-Laurent	11-12 p. <sup>2</sup> -111 p.-112 p.
02 Saguenay—Lac-Saint-Jean	21 p.-22-23 p.-24-25-27-33 p.-42 p.-91 p.-92 p.-93 p.
03 Capitale-Nationale	21 p.-31-32-33 p.
04 Mauricie	41 p.-42 p.-43 p.
05 Estrie	51
06 Montréal	63 p.
07 Outaouais	71-72-73-74 p.
08 Abitibi-Témiscamingue	74 p.-81-82-83-84 p.-85 p.-86 p.-87 p.
09 Côte-Nord	23 p.-91 p.-92 p.-93 p.-94-95-96 p.
10 Nord-du-Québec	26-84 p.-85 p.-86 p.-87 p.
11 Gaspésie—Îles-de-la-Madeleine	111 p.-112 p.-12 p.
12 Chaudières-Appalaches	34-36
13 Laval	63 p.
14 Lanaudière	41 p.-43 p.-62 p.-64 p.
15 Laurentides	61-62 p.-54 p.
16 Montérégie	63 p.
17 Centre-du-Québec	41 p.
	1. Updated July 1997. 2. P.: part of.

**Note:** This document provides figures for each of the Québec government's 17 administrative regions. However, for internal management purposes, the ministère des Ressources naturelles, de la Faune et des Parcs considers only 10 administrative regions, subdivided into 36 management units.

# 1 Geographical distribution of Québec's forest

## Types of ownership and survey zones

01.06.02

### Breakdown of Québec <sup>1</sup> by survey zone and type of ownership <sup>2</sup>

	Administrative regions																	TOTAL
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	
	(km <sup>2</sup> )																	
<b>Unsurveyed zone</b>																		
Québec public lands										260 770								260 770
Private lands (Inuit)										6 551								6 551
Federal lands																		
<b>TOTAL AREA</b>										<b>267 321</b>								<b>267 321</b>
<b>Extensive survey zone <sup>3</sup></b>																		
Québec public lands		9 093							153 907	472 170								635 170
Forests in the domain of the State <sup>4</sup>		9 093							153 907	472 170								635 170
Other tenures <sup>5</sup>																		
Private lands									30	2 116								2 146
Large holdings <sup>6</sup>										2 116								2 116
Small holdings									30									30
Federal lands									38	1 525								1 563
<b>TOTAL AREA</b>		<b>9 093</b>							<b>153 975</b>	<b>475 811</b>								<b>638 879</b>
<b>Intensive survey zone <sup>3</sup></b>																		
Québec public lands	11 574	90 658	12 472	31 389	756	93	25 669	57 393	113 286	89 976	16 188	1 603		9 109	15 228	588	95	476 077
Forests in the domain of the State	11 259	89 883	11 141	31 314	544	93	25 358	55 075	111 515	89 823	15 388	1 474		8 276	14 397	555	81	466 176
Other tenures	315	775	1 331	75	212		311	2 318	1 771	153	800	129		833	831	33	14	9 901
Private lands	11 105	6 619	6 716	7 701	9 695	514	7 904	7 188	1 929	1 088	3 995	13 649	267	4 384	6 819	11 154	6 974	107 701
Large holdings	1 126	882	2 323	3 726	1 310		489	142	953	862	125	685		2	33	33	60	12 751
Small holdings	9 979	5 737	4 393	3 975	8 385	514	7 415	7 046	976	226	3 870	12 964	267	4 382	6 786	11 121	6 914	94 950
Federal lands	2	26	610	818	5	15	545	26	3 099	1 258	289	226		8	478	103	263	7 771
<b>TOTAL AREA</b>	<b>22 681</b>	<b>97 303</b>	<b>19 798</b>	<b>39 908</b>	<b>10 456</b>	<b>622</b>	<b>34 118</b>	<b>64 607</b>	<b>118 314</b>	<b>92 322</b>	<b>20 472</b>	<b>15 478</b>	<b>267</b>	<b>13 501</b>	<b>22 525</b>	<b>11 845</b>	<b>7 332</b>	<b>591 549</b>
<b>TOTAL (LAND)</b>	<b>22 681</b>	<b>106 396</b>	<b>19 798</b>	<b>39 908</b>	<b>10 456</b>	<b>622</b>	<b>34 118</b>	<b>64 607</b>	<b>272 289</b>	<b>835 454</b>	<b>20 472</b>	<b>15 478</b>	<b>267</b>	<b>13 501</b>	<b>22 525</b>	<b>11 845</b>	<b>7 332</b>	<b>1 497 749</b>

1. Not including areas covered by the waters of the St. Lawrence River and Gulf, James Bay, Hudson Bay, Ungava Bay and the Hudson Strait.

2. Updated August 2003: The original territorial data are drawn from the third ten-year forest survey (except for the Magdalen Island data, which are still drawn from the second survey).

This area also includes inland waters but excludes the waters of the St. Lawrence River.

3. The summary of surveyed forests in Chapter 2 covers the intensive survey zone only, since forest ecosystems in the extensive survey zone are so fragile that timber harvesting is prohibited.

4. Land supporting forest stands.

5. Forest stations, experimental and research forests, etc.

6. More than 800 hectares in a single block.

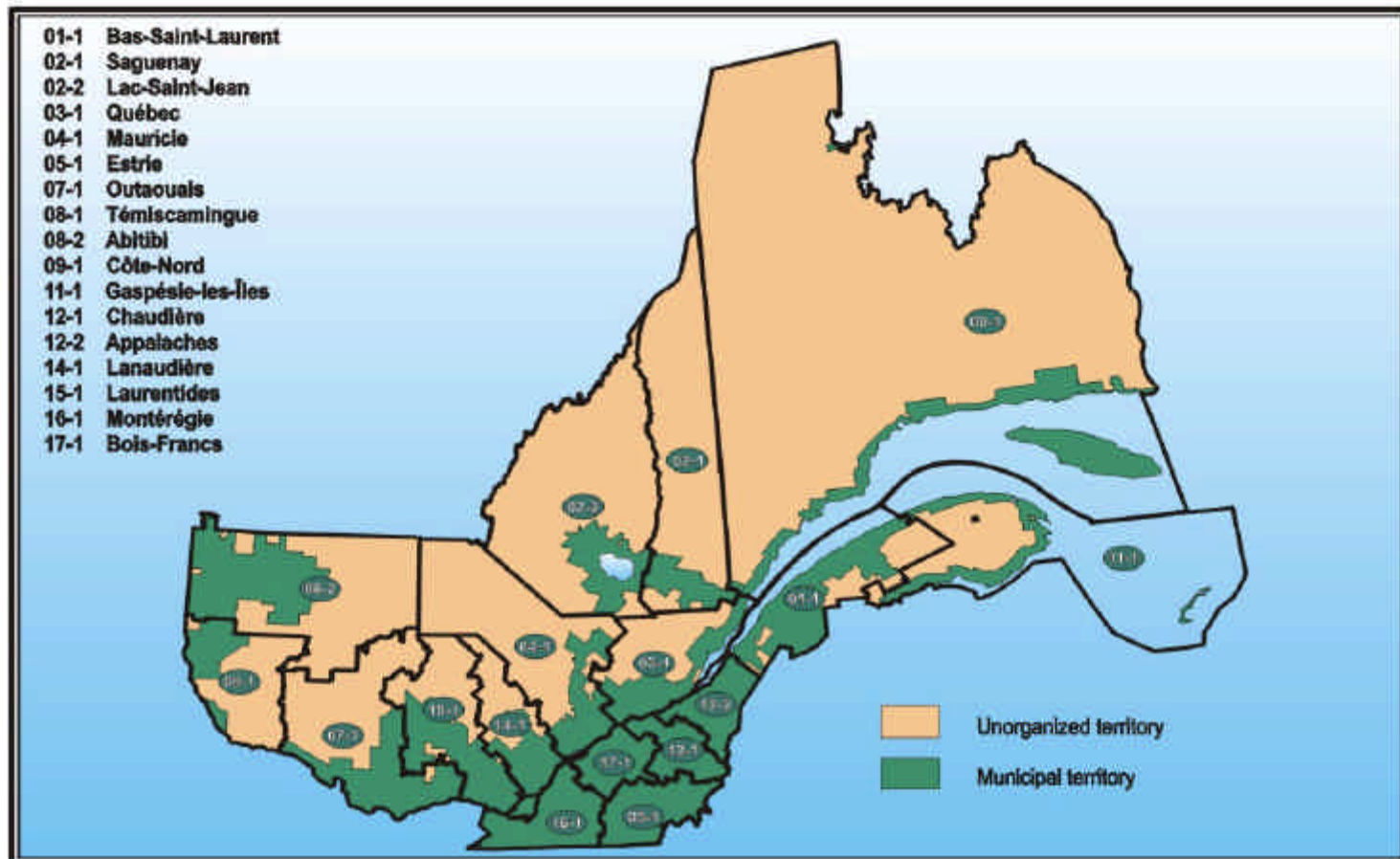
N.B. : Figures have been rounded off, which may have caused negligible errors in the totals.

# 1 Geographical distribution of Québec's forests

Private forests

Regional agencies for private forest development <sup>1</sup>

01.07.01



1. Updated April 2002.

## Regional agencies

No.	Administrative regions	Name of agency	Number of owners <sup>1</sup>	Active owners (%) <sup>2</sup>
01-1	Bas-Saint-Laurent	Agence régionale de mise en valeur des forêts privées du Bas-Saint-Laurent	10 600	61
02-1	Saguenay	Agence régionale de mise en valeur des forêts privées du Saguenay	2 400	40
02-2	Lac-Saint-Jean	Agence régionale de mise en valeur des forêts privées du Lac-Saint-Jean	3 600	40
03-1	Québec	Agence des forêts privées de Québec 03 (AFPO)	6 500	85
04-1	Mauricie	Agence régionale de mise en valeur des forêts privées mauriciennes	6 600	52
05-1	Estrie	Agence régionale de mise en valeur des forêts privées de l'Estrie (AMFE)	9 200	65
07-1	Outaouais	Agence régionale de mise en valeur des forêts privées outaouaises	10 900	61
08-1	Témiscamingue	Agence régionale de mise en valeur des forêts privées du Témiscamingue (ARMVFPT)	1 900	20
08-2	Abitibi	Agence régionale de mise en valeur des forêts privées de l'Abitibi	6 300	25
09-1	Côte-Nord	Agence régionale de mise en valeur des forêts privées de la Côte-Nord	850	62
11-1	Gaspésie-les-Îles	Agence régionale de mise en valeur des forêts privées de la Gaspésie-les-Îles (AFOGIM)	5 000	40
12-1	Chaudière	Agence régionale de mise en valeur des forêts privées de la Chaudière	11 500	81
12-2	Appalaches	Agence régionale de mise en valeur des forêts privées des Appalaches	12 800	79
14-1	Lanaudière	Agence régionale de mise en valeur des forêts privées de Lanaudière	8 300	54
15-1	Laurentides	Agence régionale de mise en valeur des forêts privées des Laurentides	13 400	12
16-1	Montérégie	Agence forestière de la Montérégie	10 500	66
17-1	Bois-Francs	Agence forestière des Bois-Francs (AFBF)	9 500	72
<b>TOTAL</b>			<b>129 850</b>	<b>57</b>

1. Number of woodlot owners (4 ha and over) per development agency.

2. Percentage of active owners over a five-year period.

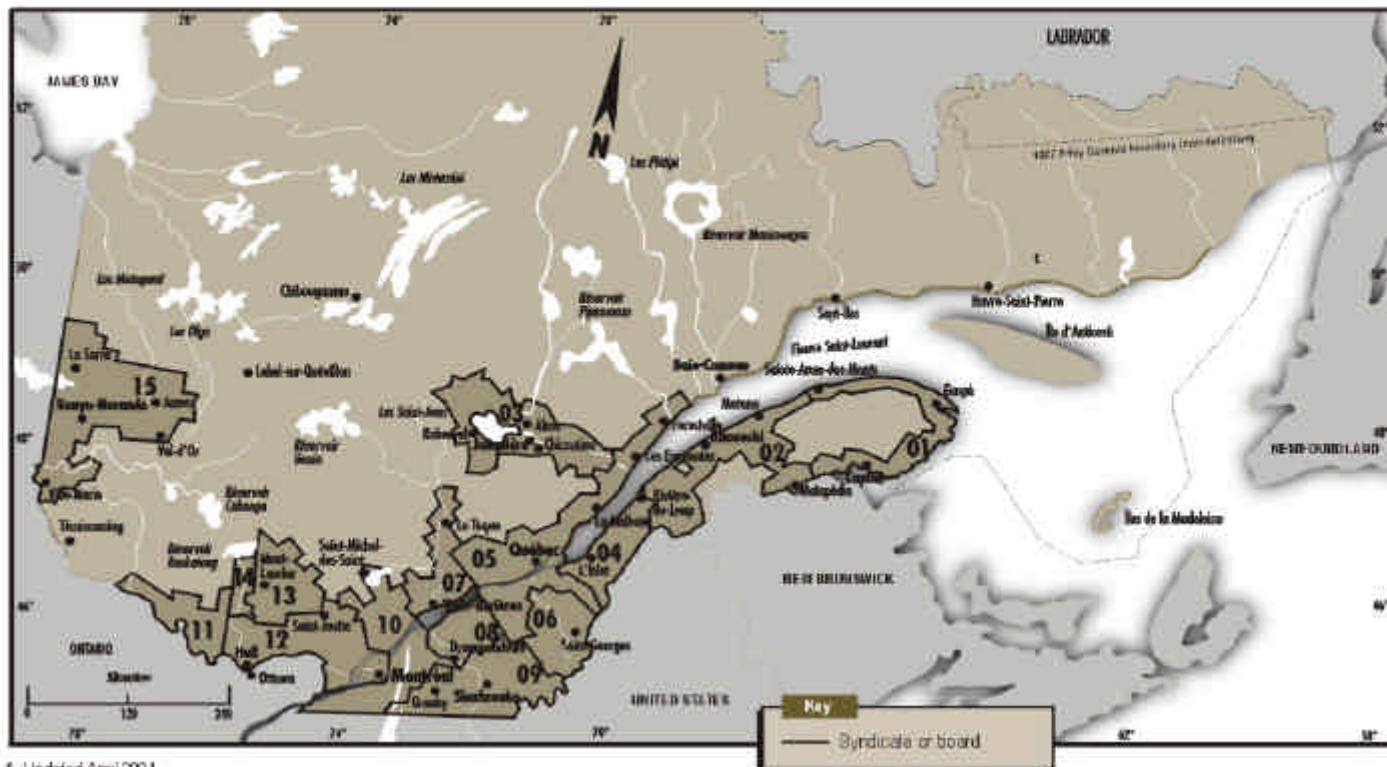
Source : Private Forest Protection and Development Plan (April 2002).

# 1 Geographical distribution of Québec's forests

## Private forests (Cont'd)

### Areas covered by syndicates and wood marketing boards <sup>1</sup>

01 07 04



1. Updated April 2001.

## Syndicates or boards

- 01 - Syndicat des producteurs de bois de la Gaspésie
- 02 - Syndicat des producteurs de bois du Bas-Saint-Laurent
- 03 - Syndicat des producteurs de bois du Saguenay—Lac-Saint-Jean
- 04 - Syndicat des producteurs de bois de la Côte-du-Sud
- 05 - Syndicat des producteurs de bois de la région de Québec
- 06 - Syndicat des producteurs de bois de la Beauce
- 07 - Syndicat des producteurs de bois de la Mauricie
- 08 - Syndicat des producteurs de bois du Centre-du-Québec
- 09 - Syndicat des producteurs de bois de l'Estrie
- 10 - Syndicat des producteurs de bois de la région de Montréal
- 11 - Office des producteurs de bois du Pontiac
- 12 - Syndicat des producteurs de bois Outaouais-Laurentides
- 13 - Syndicat des producteurs de bois du comté de Labelle
- 14 - Office des producteurs de bois de la Gatineau
- 15 - Syndicat des producteurs de bois d'Abitibi-Témiscamingue

## 2 Intensive survey zone

### Highlights

02.00.01

Land survey	Area (km <sup>2</sup> )	Gross merchantable Volume (m <sup>3</sup> , 000s)
Intensive survey zone <sup>1</sup>	591 549	
Bodies of water	-58 302	
Non-forest land	-34 894	
Forest land	498 353	
Unproductive forest land	-62 838	
Productive forest land (grades of 41% and over)	-11 401	
Productive forest land (grades of 0-40%)	424 114	3 786 834
• Québec public lands	355 004	3 118 850
• Small private holdings	55 306	546 099
• Large private holdings	10 940	91 472
• Federal lands	2 864	30 413

1. Area in which the ministère des Ressources naturelles, de la Faune et des Parcs conducts detailed forest surveys.



## 2 Intensive survey zone

### Area of productive forests (grades of 0-40%)<sup>1</sup> and available gross merchantable volume

#### By age, forest type and administrative region

02.03.01

		Administrative regions								Subtotal <sup>2</sup>	
		01		02		03		04			
		(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)
<b>TOTAL AREA<sup>2</sup></b>		<b>18 357</b>	<b>163 407</b>	<b>74 990</b>	<b>560 943</b>	<b>15 657</b>	<b>121 645</b>	<b>31 343</b>	<b>331 490</b>	<b>140 347</b>	<b>1 177 485</b>
By age	0-10 years	4 826	2 092	16 943	2 010	2 667	1 218	5 684	321	30 120	5 641
	30 years	1 788	12 900	8 046	28 970	3 104	12 820	2 862	17 288	15 800	71 979
	50 years	6 770	81 711	10 495	98 380	5 093	51 862	7 863	88 950	30 221	320 903
	70 years	3 299	44 337	12 121	137 733	2 216	24 258	7 876	127 346	25 512	333 673
	90 years	1 422	19 231	9 207	100 506	2 328	29 744	5 478	78 484	18 436	227 966
	120 years	252	3 135	18 178	193 344	249	1 743	1 580	19 102	20 259	217 323
By forest type	Softwood	6 716	63 077	45 144	395 525	5 535	38 191	10 243	109 217	67 638	606 009
	Mixedwood	6 249	58 749	15 138	112 684	5 883	48 558	12 931	147 688	40 201	367 679
	Hardwood	3 975	41 581	5 601	52 735	3 243	34 897	6 092	74 585	18 912	203 798
	Regenerating	1 418		9 107		996		2 077		13 597	
<b>Québec public lands<sup>2</sup></b>		<b>10 593</b>	<b>98 401</b>	<b>70 870</b>	<b>535 412</b>	<b>10 670</b>	<b>76 530</b>	<b>25 531</b>	<b>279 466</b>	<b>117 664</b>	<b>989 809</b>
By age	0-10 years	2 773	70	15 678	579	1 787	38	4 351	74	24 590	762
	30 years	847	5 461	6 990	22 654	2 212	8 006	2 205	12 376	12 254	48 498
	50 years	2 949	38 821	8 992	83 516	3 044	28 950	5 632	63 713	20 617	215 001
	70 years	2 598	35 294	11 881	135 362	1 698	18 059	7 369	120 440	23 547	309 155
	90 years	1 207	16 054	9 161	100 053	1 682	19 768	4 631	66 563	16 681	202 438
	120 years	219	2 700	18 167	193 247	246	1 709	1 343	16 299	19 975	213 955
By forest type	Softwood	4 748	46 952	44 226	390 017	4 672	31 634	8 598	96 456	62 245	565 059
	Mixedwood	3 263	31 650	13 529	101 053	3 660	28 261	10 848	126 973	31 300	287 937
	Hardwood	1 768	19 799	4 532	44 342	1 656	16 635	4 451	56 037	12 407	136 812
	Regenerating	814		8 583		682		1 634		11 713	
<b>Small private holdings<sup>2</sup></b>		<b>6 707</b>	<b>56 117</b>	<b>3 335</b>	<b>21 292</b>	<b>2 772</b>	<b>25 729</b>	<b>2 274</b>	<b>24 516</b>	<b>15 088</b>	<b>127 655</b>
By age	0-10 years	1 775	2 022	985	1 375	546	1 136	430	206	3 736	4 739
	30 years	747	6 093	841	5 312	477	2 969	362	3 305	2 426	17 679
	50 years	3 559	39 838	1 335	13 088	1 343	15 445	994	13 215	7 230	81 587
	70 ans	484	6 031	169	1 493	131	1 600	214	3 158	999	12 282
	90 years	139	2 065	6	23	275	4 579	273	4 620	693	11 287
	120 years	3	69					1	12	4	81
By forest type	Softwood	1 385	9 450	591	3 558	436	2 988	314	2 449	2 726	18 445
	Mixedwood	2 742	25 565	1 389	10 359	1 194	11 163	879	9 511	6 204	56 599
	Hardwood	2 069	21 103	968	7 375	981	11 578	979	12 556	4 997	52 612
	Regenerating	510		387		161		102		1 161	
<b>Large private holdings<sup>2</sup></b>		<b>1 056</b>	<b>8 868</b>	<b>774</b>	<b>4 136</b>	<b>2 022</b>	<b>17 287</b>	<b>3 033</b>	<b>20 324</b>	<b>6 885</b>	<b>50 615</b>
By age	0-10 years	278		278	55	308	43	891	38	1 754	136
	30 years	194	1 346	213	975	404	1 795	292	1 583	1 102	5 699
	50 years	262	3 046	163	1 725	633	6 557	1 195	11 525	2 253	22 852
	70 years	215	2 998	69	855	345	4 112	179	2 130	808	10 095
	90 years	76	1 112	40	430	330	4 746	337	3 837	783	10 125
	120 years	30	366	11	97	2	34	141	1 210	184	1 706
By forest type	Softwood	583	6 673	327	1 947	401	3 376	1 269	9 548	2 580	21 544
	Mixedwood	243	1 529	216	1 235	956	8 208	914	6 779	2 329	17 751
	Hardwood	137	665	95	955	528	5 703	516	3 997	1 276	11 320
	Regenerating	93		135		137		335		700	
<b>Federal lands<sup>2</sup></b>		<b>2</b>	<b>21</b>	<b>10</b>	<b>103</b>	<b>192</b>	<b>2 099</b>	<b>505</b>	<b>7 184</b>	<b>709</b>	<b>9 407</b>
By age	0-10 years	0		2	1	26		13	2	40	3
	30 years	0		3	29	11	51	3	23	17	102
	50 years	0	7	4	51	73	910	42	496	121	1 463
	70 years	1	14	2	22	41	487	114	1 617	157	2 141
	90 years		0			41	652	237	3 464	278	4 116
	120 years					0	0	95	1 581	96	1 581
By forest type	Softwood	0	1	0	3	25	193	62	763	87	961
	Mixedwood	1	6	3	36	73	925	291	4 425	368	5 392
	Hardwood	1	14	6	63	79	981	146	1 996	231	3 054
	Regenerating	0		1		16		6		23	

1. Updated August 2003

2. The figures have been rounded off, which may have caused negligible errors.

## 2 Intensive survey zone

Area of productive forests (grades of 0-40%)<sup>1</sup> and available gross merchantable volume (cont'd)

By age, forest type and administrative region (cont'd)

02.03.01

		Administrative regions								Subtotal <sup>2</sup>	
		05		06		07		08			
		(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)
<b>TOTAL AREA<sup>2</sup></b>		<b>7 668</b>	<b>87 691</b>	<b>41</b>	<b>319</b>	<b>27 239</b>	<b>365 699</b>	<b>48 594</b>	<b>447 449</b>	<b>83 543</b>	<b>901 157</b>
By age	0-10 years	1 620	212	20	3	2 570	6 426	8 490	2 128	12 700	8 769
	30 years	1 328	12 604	7	61	1 630	13 782	5 792	26 012	8 757	52 459
	50 years	3 603	55 106	11	190	7 953	119 826	9 665	98 437	21 232	273 558
	70 years	329	5 061			4 990	69 120	11 140	145 627	16 460	219 807
	90 years	787	14 701	3	65	9 727	152 527	10 242	138 637	20 758	305 930
	120 years	1	8			369	4 018	3 265	36 609	3 635	40 634
By forest type	Softwood	1 269	13 214	0	3	3 474	37 245	17 687	146 247	22 431	196 709
	Mixedwood	2 818	31 999	3	24	10 429	143 927	17 092	178 043	30 342	353 993
	Hardwood	2 979	42 478	22	292	12 370	184 527	10 942	123 160	26 313	350 456
	Regenerating	601		16		966		2 874		4 457	
<b>Québec public lands<sup>2</sup></b>		<b>679</b>	<b>9 602</b>			<b>21 551</b>	<b>286 729</b>	<b>44 910</b>	<b>422 327</b>	<b>67 140</b>	<b>718 657</b>
By age	0-10 years	70	5			1 875	5 184	7 395	1 916	9 341	7 105
	30 years	58	484			1 326	10 382	5 197	22 057	6 581	32 922
	50 years	294	4 951			4 778	69 612	8 153	82 573	13 226	157 136
	70 years	108	1 621			4 259	57 473	10 766	141 269	15 132	200 363
	90 years	149	2 535			8 947	140 126	10 201	138 258	19 297	280 919
	120 years	1	7			366	3 952	3 197	36 254	3 564	40 213
By forest type	Softwood	108	1 012			2 992	29 833	17 128	143 116	20 227	173 961
	Mixedwood	273	3 525			8 510	114 009	16 237	170 569	25 020	288 104
	Hardwood	288	5 064			9 494	142 887	9 088	108 641	18 871	256 592
	Regenerating	10				555		2 457		3 022	
<b>Small private holdings<sup>2</sup></b>		<b>5 746</b>	<b>62 993</b>	<b>40</b>	<b>317</b>	<b>4 839</b>	<b>66 596</b>	<b>3 553</b>	<b>24 138</b>	<b>14 177</b>	<b>154 044</b>
By age	0-10 years	1 279	174	19	3	644	1 114	1 087	212	3 029	1 503
	30 years	1 139	10 959	6	59	270	3 090	568	3 844	1 983	17 952
	50 years	2 785	41 542	11	190	2 682	42 440	1 482	15 617	6 961	99 789
	70 years	130	2 049			628	10 012	365	4 232	1 123	16 293
	90 years	412	8 269	3	65	614	9 938	19	167	1 048	18 439
	120 years					0	2	33	65	33	67
By forest type	Softwood	994	10 466	0	3	445	6 800	472	2 531	1 911	19 799
	Mixedwood	2 160	24 097	3	24	1 707	26 598	826	7 212	4 695	57 932
	Hardwood	2 059	28 430	21	290	2 296	33 198	1 839	14 395	6 215	76 313
	Regenerating	533		15		391		416		1 356	
<b>Large private holdings<sup>2</sup></b>		<b>1 242</b>	<b>15 079</b>			<b>405</b>	<b>5 712</b>	<b>113</b>	<b>866</b>	<b>1 759</b>	<b>21 657</b>
By age	0-10 years	271	33			37	115	3		310	147
	30 years	131	1 161			24	204	22	76	177	1 442
	50 years	522	8 596			208	3 294	23	185	753	12 074
	70 years	91	1 391			40	669	8	104	140	2 164
	90 years	226	3 897			93	1 365	22	212	340	5 474
	120 years	0	1			3	64	35	290	39	355
By forest type	Softwood	167	1 733			19	327	85	588	271	2 648
	Mixedwood	386	4 373			106	1 680	23	235	515	6 289
	Hardwood	631	8 973			270	3 704	4	43	905	12 720
	Regenerating	58				9		0		67	
<b>Federal lands<sup>2</sup></b>		<b>1</b>	<b>17</b>	<b>1</b>	<b>2</b>	<b>445</b>	<b>6 662</b>	<b>19</b>	<b>118</b>	<b>467</b>	<b>6 800</b>
By age	0-10 years	0		1		13	13	6		20	13
	30 years	0	0	0	2	10	106	6	35	16	143
	50 years	1	17			285	4 480	6	62	292	4 559
	70 years	0				63	966	2	21	65	987
	90 years					74	1 098	0	0	74	1 098
	120 years										
By forest type	Softwood	0	3			19	285	2	13	21	300
	Mixedwood	0	4			105	1 639	6	26	111	1 669
	Hardwood	1	10	0	2	310	4 739	11	80	322	4 831
	Regenerating	0		1		11		1		13	

1. Updated August 2003

2. The figures have been rounded off, which may have caused negligible errors.

## 2 Intensive survey zone

Area of productive forests (grades of 0-40%)<sup>1</sup> and available gross merchantable volume (cont'd)

By age, forest type and administrative region (cont'd)

02.03.01

		Administrative regions								Subtotal <sup>2</sup>	
		09		10		11		12			
		(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)
<b>TOTAL AREA<sup>2</sup></b>		<b>80 294</b>	<b>656 799</b>	<b>57 768</b>	<b>389 011</b>	<b>16 383</b>	<b>137 961</b>	<b>10 920</b>	<b>94 021</b>	<b>165 365</b>	<b>1 277 792</b>
By age	0-10 years	11 994	85	15 722	440	3 242	66	2 997	1 694	33 955	2 284
	30 years	5 703	12 197	3 461	5 323	2 637	11 820	1 774	13 755	13 575	43 094
	50 years	6 630	53 571	2 927	17 634	5 173	57 980	4 475	54 459	19 205	183 644
	70 years	6 201	66 678	13 160	162 523	2 615	33 214	809	10 129	22 785	272 544
	90 years	23 130	248 362	5 858	60 685	2 195	29 070	859	13 901	32 041	352 017
	120 years	26 636	275 905	16 640	142 406	521	5 813	7	84	43 804	424 208
By forest type	Softwood	61 762	582 416	39 117	321 515	7 194	67 647	2 468	21 264	110 540	992 842
	Mixedwood	8 195	59 148	7 368	54 342	6 141	51 515	4 709	38 727	26 413	203 732
	Hardwood	1 716	15 235	1 734	13 153	1 938	18 799	2 694	34 031	8 081	81 218
	Regenerating	8 621		9 549		1 111		1 050		20 331	
<b>Québec public lands<sup>2</sup></b>		<b>78 693</b>	<b>645 778</b>	<b>56 061</b>	<b>376 339</b>	<b>13 271</b>	<b>110 335</b>	<b>1 493</b>	<b>14 705</b>	<b>149 519</b>	<b>1 147 157</b>
By age	0-10 years	11 717	33	15 446	434	2 594	6	420	15	30 177	488
	30 years	5 472	11 353	3 378	4 986	2 105	8 477	83	474	11 038	25 290
	50 years	5 996	47 956	2 824	16 732	3 886	42 843	373	5 608	13 079	113 140
	70 years	6 029	64 997	13 017	160 956	2 158	26 968	439	5 880	21 642	258 802
	90 years	22 898	246 040	5 323	55 829	2 014	26 288	171	2 644	30 405	330 801
	120 years	26 581	275 399	16 074	137 401	516	5 753	7	83	43 178	418 636
By forest type	Softwood	60 920	575 958	37 884	311 467	6 467	61 657	532	5 252	105 803	954 334
	Mixedwood	7 693	55 680	7 165	52 156	4 534	36 609	590	5 917	19 982	150 362
	Hardwood	1 581	14 139	1 688	12 716	1 307	12 069	218	3 536	4 794	42 461
	Regenerating	8 499		9 325		963		153		18 940	
<b>Small private holdings<sup>2</sup></b>		<b>578</b>	<b>3 974</b>	<b>138</b>	<b>808</b>	<b>2 780</b>	<b>24 845</b>	<b>8 773</b>	<b>72 706</b>	<b>12 270</b>	<b>102 334</b>
By age	0-10 years	99	52	44	4	607	58	2 389	1 664	3 139	1 778
	30 years	91	380	31	176	473	3 077	1 638	12 911	2 233	16 545
	50 years	304	2 704	37	352	1 158	13 835	3 818	44 542	5 318	61 432
	70 years	34	324	17	183	380	5 350	293	3 206	724	9 063
	90 years	42	444	4	45	158	2 482	635	10 383	839	13 355
	120 years	8	70	6	48	4	43			18	161
By forest type	Softwood	212	1 430	46	286	647	5 323	1 804	14 862	2 710	21 902
	Mixedwood	236	1 734	31	258	1 437	13 489	3 799	29 787	5 503	45 268
	Hardwood	82	811	36	263	560	6 033	2 332	28 056	3 010	35 163
	Regenerating	48		26		136		837		1 048	
<b>Large private holdings<sup>2</sup></b>		<b>722</b>	<b>5 050</b>	<b>698</b>	<b>5 195</b>	<b>104</b>	<b>792</b>	<b>655</b>	<b>6 610</b>	<b>2 179</b>	<b>17 647</b>
By age	0-10 years	117		139	1	20		188	14	464	15
	30 years	122	397	35	127	33	173	53	369	243	1 067
	50 years	220	2 074	40	350	25	262	283	4 309	569	6 995
	70 years	104	1 028	53	572	19	239	78	1 043	254	2 882
	90 years	124	1 251	163	1 673	6	107	53	874	347	3 904
	120 years	34	300	267	2 473	1	10	0	0	302	2 784
By forest type	Softwood	457	3 604	471	4 060	50	423	131	1 149	1 109	9 235
	Mixedwood	180	1 196	100	1 060	50	352	320	3 022	650	5 630
	Hardwood	45	250	6	75	3	17	144	2 439	198	2 781
	Regenerating	40		120		1		60		222	
<b>Federal lands<sup>2</sup></b>		<b>300</b>	<b>1 997</b>	<b>870</b>	<b>6 667</b>	<b>228</b>	<b>1 990</b>			<b>1 398</b>	<b>10 655</b>
By age	0-10 years	60		93	2	21	2			174	3
	30 years	18	68	17	33	26	92			61	193
	50 years	110	838	26	200	105	1 039			240	2 077
	70 years	33	330	74	811	58	657			165	1 798
	90 years	66	627	367	3 138	17	193			450	3 958
	120 years	13	135	293	2 483	0	7			307	2 626
By forest type	Softwood	173	1 424	716	5 702	29	244			918	7 370
	Mixedwood	86	538	72	867	121	1 066			279	2 471
	Hardwood	7	36	5	98	67	680			79	814
	Regenerating	34		77		11				121	

1. Updated August 2003

2. The figures have been rounded off, which may have caused negligible errors.

## 2 Intensive survey zone

Area of productive forests (grades of 0-40%)<sup>1</sup> and available gross merchantable volume (cont'd)

By age, forest type and administrative region (cont'd)

02.03.01

		Administrative regions										TOTAL <sup>2</sup>			
		13		14		15		16		17					
		(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)	(km <sup>2</sup> )	(m <sup>3</sup> , 000s)		
<b>TOTAL AREA<sup>2</sup></b>		61	362	9 892	115 745	17 811	241 717	3 591	41 930	3 504	30 644	424 116	3 786 833		
By age	0-10 years	31		1 610	323	1 717	2 241	564	219	787	694	81 486	20 170		
	30 years	14	108	879	6 657	1 065	7 695	837	7 790	761	5 078	41 689	194 860		
	50 years	15	233	3 042	42 239	6 233	92 904	1 654	23 516	1 790	21 722	83 393	958 719		
	70 years	0	1	2 461	38 162	2 822	41 348	114	1 923	37	489	70 190	907 948		
	90 years	1	20	1 764	26 919	5 634	93 102	422	8 482	129	2 662	79 184	1 017 097		
	120 years			135	1 446	340	4 427					68 173	688 038		
By forest type	Softwood			1 399	15 153	2 450	25 815		2 936	548	4 150	205 217	1 843 613		
	Mixedwood	8	63	4 838	58 891	6 328	86 264	815	11 159	973	10 031	109 919	1 091 810		
	Hardwood	25	299	3 320	41 702	8 617	129 638	2 255	27 835	1 705	16 463	69 227	851 410		
	Regenerating	28		335		416		310		279		39 753			
<b>Québec public lands<sup>2</sup></b>				<b>7 596</b>	<b>88 090</b>	<b>12 995</b>	<b>174 262</b>	<b>23</b>	<b>227</b>	<b>67</b>	<b>648</b>	<b>355 004</b>	<b>3 118 850</b>		
By age	0-10 years			1 264	249	1 093	1 331	7	2	11	4	66 481	9 939		
	30 years			635	4 272	861	5 863	5	46	12	79	31 386	116 969		
	50 years			1 755	23 796	3 326	47 417	6	92	38	463	52 047	557 044		
	70 years			2 159	33 552	2 434	34 885	0	5	3	37	64 916	836 799		
	90 years			1 648	24 775	4 947	80 471	5	83	4	66	72 988	919 553		
	120 years			135	1 446	334	4 296					67 186	678 546		
By forest type	Softwood			1 240	13 244	2 091	21 559	1	11	14	123	191 620	1 728 293		
	Mixedwood			3 959	47 633	4 787	63 208	3	31	28	309	85 079	837 583		
	Hardwood			2 170	27 213	5 938	89 496	15	185	22	216	44 216	552 975		
	Regenerating			228		179		4		4		34 090			
<b>Small private holdings<sup>2</sup></b>				<b>61</b>	<b>362</b>	<b>2 287</b>	<b>27 560</b>	<b>4 567</b>	<b>64 130</b>	<b>3 479</b>	<b>40 601</b>	<b>3 377</b>	<b>29 413</b>	<b>55 307</b>	<b>546 099</b>
By age	0-10 years	31		345	74	587	908	539	200	763	681	12 170	9 884		
	30 years	14	108	244	2 383	185	1 652	825	7 677	739	4 936	8 648	68 932		
	50 years	15	233	1 285	18 418	2 785	43 596	1 609	22 826	1 731	21 019	26 933	348 900		
	70 years	0	1	302	4 597	354	5 943	111	1 876	32	415	3 645	50 470		
	90 years	1	20	112	2 088	650	11 901	395	8 021	112	2 362	3 850	67 473		
	120 years					6	131					61	440		
By forest type	Softwood			159	1 909	335	3 946	210	2 917	524	3 974	8 574	72 892		
	Mixedwood	8	63	876	11 224	1 466	21 917	807	11 044	930	9 541	20 489	213 586		
	Hardwood	25	299	1 146	14 428	2 560	38 267	2 169	26 640	1 652	15 898	21 774	259 620		
	Regenerating	28		107		207		293		271		4 470			
<b>Large private holdings<sup>2</sup></b>				<b>2</b>	<b>35</b>	<b>29</b>	<b>500</b>	<b>31</b>	<b>502</b>	<b>55</b>	<b>517</b>	<b>10 940</b>	<b>91 472</b>		
By age	0-10 years			0		0	1	3	8	13	9	2 545	316		
	30 years					2	23	1	7	10	60	1 535	8 297		
	50 years			1	9	11	187	11	182	17	180	3 615	42 480		
	70 years			0	6	4	69	1	25	2	35	1 209	15 277		
	90 years			1	19	11	221	16	281	13	234	1 511	20 257		
	120 years											524	4 846		
By forest type	Softwood					3	34	1	8	9	48	3 972	33 518		
	Mixedwood			1	15	9	173	3	58	15	174	3 523	30 091		
	Hardwood			1	19	17	293	27	436	27	294	2 451	27 863		
	Regenerating					0		0		5		994			
<b>Federal lands<sup>2</sup></b>				<b>7</b>	<b>61</b>	<b>221</b>	<b>2 824</b>	<b>58</b>	<b>600</b>	<b>5</b>	<b>67</b>	<b>2 864</b>	<b>30 413</b>		
By age	0-10 years			2		37	1	16	10	1		290	31		
	30 years			0	2	17	158	7	60	0	5	120	663		
	50 years			1	16	111	1 704	29	416	4	61	797	10 296		
	70 years			0	5	30	452	1	17	0	1	420	5 402		
	90 years			3	37	26	509	5	96			836	9 814		
	120 years											402	4 207		
By forest type	Softwood			1	0	22	275			1	5	1 050	8 912		
	Mixedwood			2	19	66	966	2	26	1	7	828	10 550		
	Hardwood			3	42	103	1 582	44	574	4	55	786	10 951		
	Regenerating					30		12		0		200			

1. Updated August 2003

2. The figures have been rounded off, which may have caused negligible errors.

### 3 Forest protection in Québec

#### Highlights

03.00.01

#### Area disturbed by the spruce budworm (ha, 000s)

	2000	2001 <sup>1</sup>
Light defoliation	2.7	0.7
Moderate defoliation	1.8	2.5
Severe defoliation	6.2	15.7
<b>TOTAL AREA DISTURBED</b>	<b>10.7</b>	<b>18.9</b>

1. Preliminary figures.

#### Areas disturbed by the hemlock looper (ha, 000s)

	2000	2001 <sup>1</sup>
Light defoliation	45.4	
Moderate defoliation	103.8	0.9
Severe defoliation	775.8	62.6
<b>TOTAL AREA DISTURBED</b>	<b>925.0</b>	<b>63.5</b>

1. Preliminary figures.

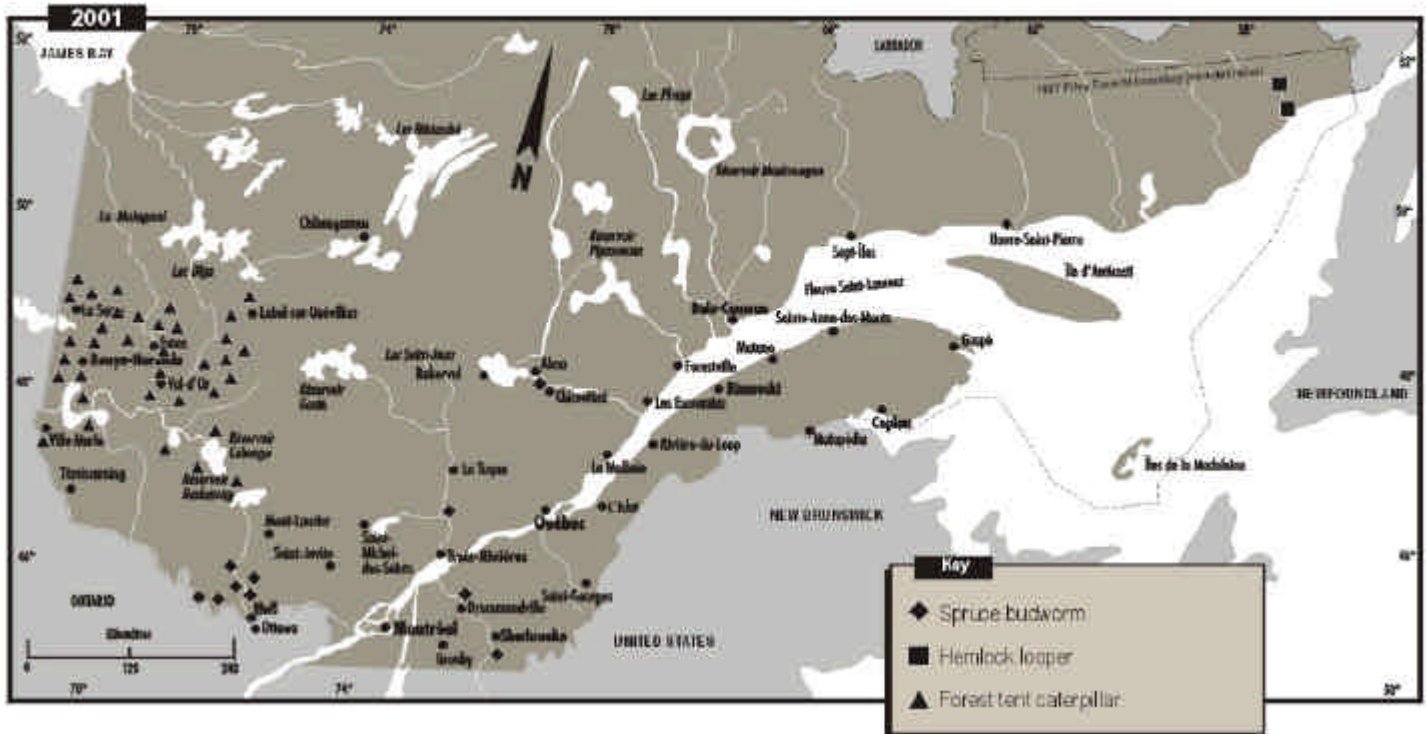
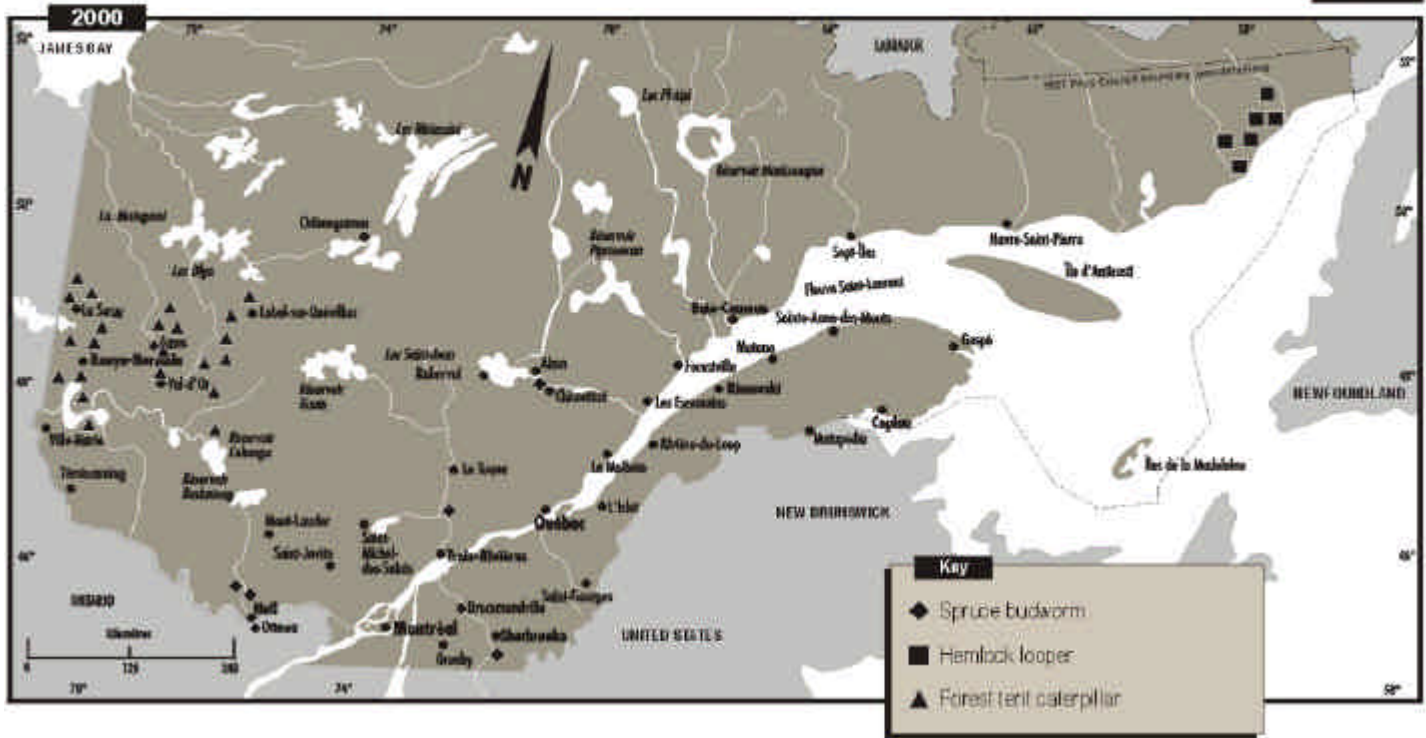
#### Forest fires

	2000	2001 <sup>1</sup>
<b>Intensive protection zone</b>		
• Fires (no.)	475	970
• Area disturbed (ha, 000s)	0.8	1.4
• Fire control and firefighting costs (\$, millions)	52.9	60.9
• Relative importance of fires caused by lightning <sup>2</sup> (%)		
- Number		30
- Area disturbed		74
	<b>2000</b>	<b>2001<sup>1</sup></b>
<b>Limited protection zone</b>		
• Fires (no.)	41	33
• Area disturbed (ha, 000s)	38.4	31.7
• Fire control and firefighting costs (\$, millions)	0.7	1.1

1. Lightning was the main cause of forest fires in Québec during the period 1992-2001.

### 3 Forest protection in Québec Insects and diseases Areas damaged by defoliator insects

03.03.01

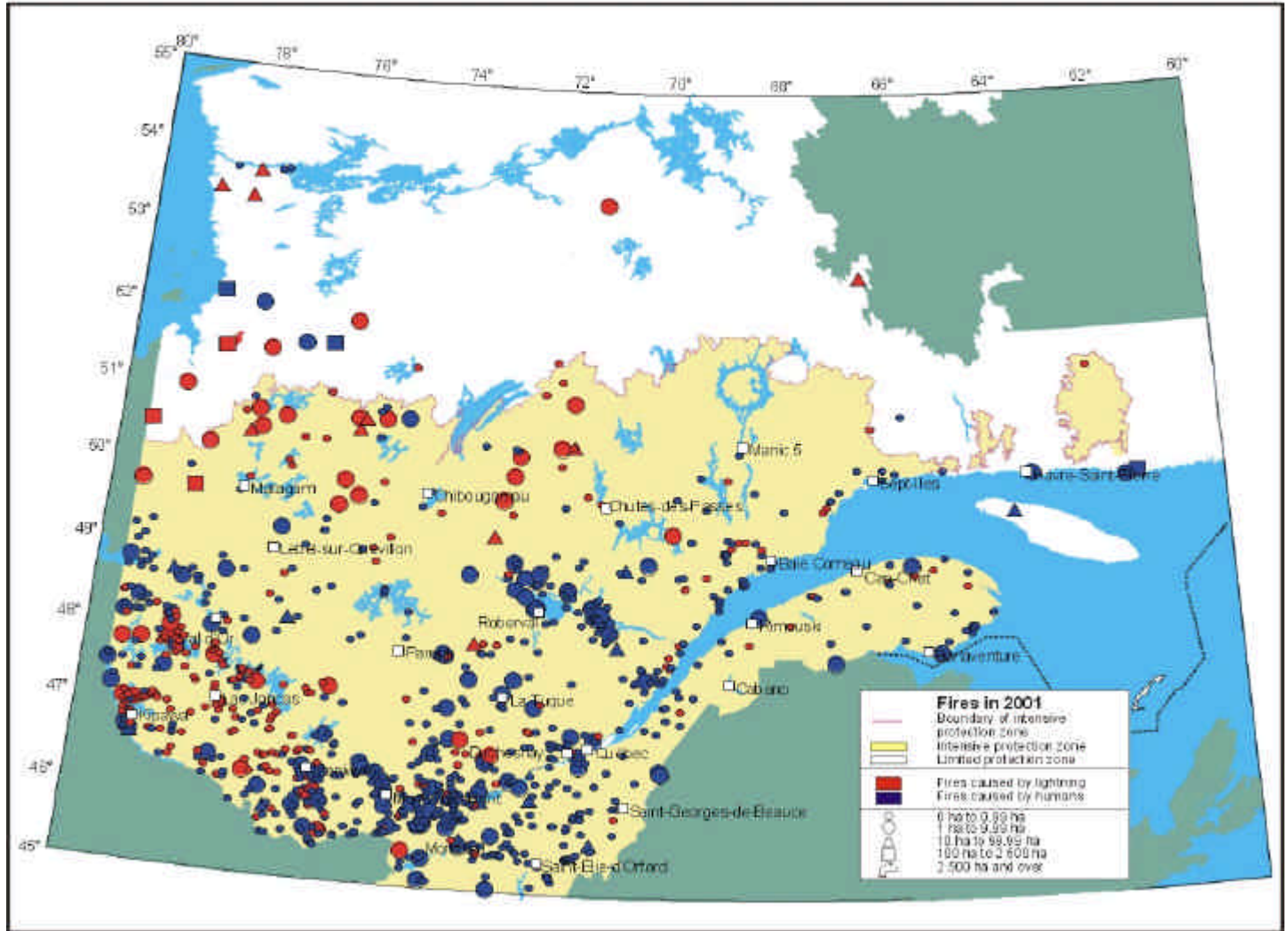


### 3 Forest protection in Québec

#### Forest fires

#### Areas damaged by fires

03.04.02



### 3 Forest protection in Québec

#### Forest fires (cont'd)

#### Intensive protection zone: breakdown of forest fires by administrative region

03.04.09

Administrative regions		1996	1997	1998	1999	2000	2001
01 Bas-Saint-Laurent	no.	35	16	20	35	16r	19p
	ha	12	3	5	86	1r	2p
02 Saguenay—Lac-Saint-Jean	no.	324	64	61	122	78r	91p
	ha	52 211	5 421	5 321	2 374	114r	361p
03 Capitale-Nationale	no.	33	23	20	24	36r	54p
	ha	13	2 916	6	5 204	46r	25p
04 Mauricie <sup>1</sup>	no.	111	81	67	79	34r	56p
	ha	2 308	8 822	801	79	12r	84p
05 Estrie	no.	4	18	13	24	14r	54p
	ha	1	7	14	48	2r	39p
06 Montréal	no.				2		
	ha						
07 Outaouais	no.	48	127	104	102	40r	131p
	ha	46	53	203	39	60r	56p
08 Abitibi-Témiscamingue	no.	116	118	165	119	72r	178p
	ha	5 238	101	110	429	31r	233p
09 Côte-Nord	no.	141	37	110	134	48r	59p
	ha	24 731	3 413	1 052	18 913	345r	6p
10 Nord-du-Québec	no.	158	131	38	59	32r	49p
	ha	159 180	72 743	4 189	421	98r	363p
11 Gaspésie—Îles-de-la-Madeleine	no.	61	26	33	46	22r	25p
	ha	31	179	7	27	9r	10p
12 Chaudière-Appalaches	no.	7	18	15	33	7r	25p
	ha	2	10	8	10	4r	11p
13 Laval	no.						
	ha						
14 Lanaudière	no.	33	61	61	87	25r	88p
	ha	17	33	71	42	19r	35p
15 Laurentides	no.	40	82	52	86	39r	78p
	ha	22	40	16	31	46r	53p
16 Montérégie	no.	9	9	22	36	6r	41p
	ha	5	9	34	94	6r	64p
17 Centre-du-Québec	no.		8	16	17	6r	22p
	ha		4	9	11	1r	16p
<b>TOTAL</b>	<b>no.</b>	<b>1 120</b>	<b>819</b>	<b>797</b>	<b>1 005</b>	<b>475r</b>	<b>970p</b>
	<b>ha</b>	<b>243 817</b>	<b>93 749</b>	<b>11 845</b>	<b>27 806</b>	<b>794r</b>	<b>1 358p</b>

1. Combined data for Mauricie and Centre-du-Québec in 1996.



## 4 Sustainable development of Québec's forests

### Highlights

#### Sustainable development criteria

04.00.01

- 1 - Preservation of biological diversity
- 2 - Maintenance and improvement of the conditions and productivity of forest ecosystems
- 3 - Conservation of soil and water resources
- 4 - Maintenance of the function of forest ecosystems as a component of global ecological cycles
- 5 - Maintenance of the multiple socio-economic benefits society derives from the forests
- 6 - Giving of proper consideration, in selecting forms of development, to the values and needs expressed by the populations concerned

Distribution of protected areas by bioclimatic domain	(km <sup>2</sup> )
Sugar maple-bitternut hickory domain	296
Sugar maple-basswood domain	884
Sugar maple-yellow birch domain	2 718
Balsam fir-yellow birch domain	1 728
Balsam fir-white birch domain	12 652
Spruce-moss domain	989
Forest tundra domain	14 548
Shrub arctic tundra domain	12 252
Waters of the St. Lawrence River, James Bay, Hudson Bay, Ungava Bay and Hudson Strait	2 954
<b>TOTAL</b>	<b>49 021</b>
<b>Protected Areas in Quebec in March 2003 <sup>1</sup></b>	<b>88 586</b>

1. A protected area reserve of 40,050 km<sup>2</sup> was created between May 2002 and the end of February 2003.

#### Plant species designated as threatened or vulnerable

Wild leek  
Adam-and-Eve  
Jack-in-the-pulpit  
Alpine fern  
Hop sedge  
Autumn coral-root, Pringle Corallorhiza variety  
Conrad corema  
Ram's Head Lady's Slipper  
Dwarf huckleberry, Bigelow variety  
American ginseng  
Spread-leaved sunflower

#### Animal species likely to be designated as threatened or vulnerable

Fish	5
Amphibians	5
Reptiles	7
Birds	12
Mammals	16

## 5 Forest Management Highlights

05.00.01

### Allowable annual cut in Québec's forest (m<sup>3</sup>, 000s)

	2001	2002
Allowable annual cut - public forests (common areas) (softwoods : 72.7 %, hardwoods : 27.3 %)	41 858.1	41 903.3
Allowable annual cut - private forests (regional agencies) (softwoods : 46.4 %, hardwoods : 53.6 %)	12 859.3	11 968.8
<b>TOTAL</b>	<b>54 717.4</b>	<b>53 872.1</b>

### Surface areas considered in calculating the allowable annual cut in Québec (ha, 000s)

	2001	2002
Productive public forests <sup>1</sup>		
- TSFMA	30 062.3	29 916.2
- FMC	1 360.5	1 304.0
Productive private forests <sup>1</sup> (regional agencies)	6 619.8	6 619.8
<b>TOTAL</b>	<b>38 042.6</b>	<b>37 840.0</b>

1. Grades of 0-40%.

### Volume of timber allocated in Québec's public forests (m<sup>3</sup>, 000s)

	2001	2002
Timber supply and forest management agreements (TSFMAs)	35 022.4	35 182.1
Forest management contracts (FMCs)	442.6	553.3

### Number of common areas and timber supply and forest management agreements

	2001	2002
Common areas	114	114
Timber supply and forest management agreements (TSFMAs)	253	252
Forest management contracts (FMCs)	82	72

### Volume of timber harvested in Québec (2001-2002) (m<sup>3</sup>, 000s)

Public forests	30 306
Private forests <sup>1</sup>	9 843
• Volumes marketed by syndicates and marketing boards	6 600
<b>TOTAL</b>	<b>40 149</b>
Volume harvested/allowable annual cut <sup>2</sup>	
• Softwoods	82.2%
• Hardwoods	56.7%
<b>TOTAL</b>	<b>73.6%</b>

1. Including approximately 2.0 million m<sup>3</sup> of firewood.

2. Allowable annual cut (public and private forests), all species combined.

### Size of cutting areas in Québec

#### 2001-2002 (ha, 000s)

Public forests	304.3
Private forests (estimate)	85.0
<b>TOTAL</b>	<b>389.3</b>
<b>TOTAL size of cutting areas/productive forest area<sup>1</sup></b>	<b>1.03%</b>

1. Total area of public and private forests considered in calculating the allowable annual cut.

### Market value of standing trees (public forests, all species combined), based on the mean provincial unit rate

	(\$/m <sup>3</sup> )
2000-2001	10.67
2001-2002	10.09
2002-2003	10.24

### Relative share of transportation methods used for Québec's lumber exports 2001-2002

Rail	51.8%
Truck	45.9%
Ship	2.3%
<b>TOTAL</b>	<b>100%</b>

### Network of permanent forest roads in Québec 2001-2002

Length (km)	15 401
Bridges (no.)	547

### Québec's production of seedlings for reforestation

	2000-2001	2001-2002
Cones harvested (hl)	4 775.2	1 273.0
Area of seed tree orchards (ha)	1 278.8	1 285.8
Seedlings produced (000s)	157 986.5	154 088.0
• MRNFP nurseries	41 460.1	38 425.0
• Privately owned nurseries	116 526.4	115 663.0

### Reforestation in Québec<sup>1</sup>

		(seedlings, 000s)	(ha, 000s)
Public forests	1999-2000	106 150	69.6
	2000-2001r	97 273	64.1
	2001-2002p	104 703	62.5
Private forests	1999-2000	32 705	14.9
	2000-2001r	27 780	12.7
	2001-2002p	26 980	12.3
<b>TOTAL</b>	<b>1999-2000</b>	<b>138 855</b>	<b>84.5</b>
	<b>2000-2001r</b>	<b>125 053</b>	<b>76.8</b>
	<b>2001-2002p</b>	<b>131 683</b>	<b>74.8</b>

## 5 Forest Management Highlights (cont'd)

05.00.01

### Site preparation in Québec's forests (ha, 000s)

Public forests	2000-2001r	46.9
	2001-2002r	45.3
	2002-2003p	47.4
Private forests	2000-2001r	8.7
	2001-2002r	9.2
	2002-2003p	-
<b>TOTAL</b>	<b>2000-2001r</b>	<b>55.6</b>
	<b>2001-2002r</b>	<b>54.5</b>
	<b>2002-2003p</b>	<b>-</b>

### Silvicultural treatments carried out in Québec<sup>1</sup> (ha, 000s)

Public forests	2000-2001r	569.6
	2001-2002r	519.9
	2002-2003p	532.3
Private forests	2000-2001r	52.3
	2001-2002r	51.7
	2002-2003p	-
<b>TOTAL</b>	<b>2000-2001r</b>	<b>621.9</b>
	<b>2001-2002r</b>	<b>571.6</b>
	<b>2002-2003p</b>	<b>-</b>

### Noncommercial silvicultural treatments carried out in Québec<sup>1</sup> (ha, 000s)

Public forests	2000-2001r	96.7
	2001-2002r	107.8
	2002-2003p	123.8
Private forests	2000-2001r	21.0
	2001-2002r	21.1
	2002-2003p	-
<b>TOTAL</b>	<b>2000-2001r</b>	<b>117.7</b>
	<b>2001-2002r</b>	<b>128.9</b>
	<b>2002-2003p</b>	<b>-</b>

### Commercial silvicultural treatments carried out in Québec<sup>1</sup> (ha, 000s)

Public forests	2000-2001r	361.7
	2001-2002r	304.3
	2002-2003p	294.6
Private forests	2000-2001r	9.8
	2001-2002r	9.7
	2002-2003p	-
<b>TOTAL</b>	<b>2000-2001r</b>	<b>371.5</b>
	<b>2001-2002r</b>	<b>314.0</b>
	<b>2002-2003p</b>	<b>-</b>

### Silvicultural treatments planned in Québec forests to achieve fixed yields (ha, 000s/year)

Common areas <sup>1</sup>	670.9
Regional agencies for private forest development <sup>2</sup>	67.4

1. Silvicultural treatments planned in the public forests (2002-2003).

2. Silvicultural treatments planned in the private forests (2000-2005).

## 5 Forest management

### Allowable annual cut

The allowable annual cut was calculated for public forests (areas covered by TSFMA<sup>1</sup>) (37.4 million ha) and for small and large private holdings (6.2 million ha).

### Allowable annual cut by administrative region<sup>2</sup> on March 31, 2002 (public forests) (m<sup>3</sup>)

05.01.01

Administrative regions	Public forests (Common areas)					Forest reserves <sup>3</sup>					TOTAL
	Fir spruce jack pine larch	Other softwoods	Poplars	Other hardwoods	Subtotal	Fir spruce jack pine larch	Other softwoods	Poplars	Other hardwoods	Subtotal	
01 Bas-Saint-Laurent	930 919	42 223	109 878	240 604	1 323 624	..	..	..	..	..	..
02 Saguenay—Lac-Saint-Jean	7 480 453	4 598	646 122	953 841	9 085 014	..	..	..	..	..	..
03 Capitale-Nationale	857 753	8 688	99 313	271 560	1 237 314	..	..	..	..	..	..
04 Mauricie	2 622 416	55 420	475 189	1 022 226	4 175 251	..	..	..	..	..	..
05 Estrie	32 223	2 644	5 944	42 947	83 758	..	..	..	..	..	..
06 Montréal	..	..	..	..	..	..	..	..	..	..	..
07 Outaouais	815 528	568 007	432 544	1 620 590	3 436 669	..	..	..	..	..	..
08 Abitibi-Témiscamingue	3 462 318	442 140	697 730	1 389 396	5 991 584	..	..	..	..	..	..
09 Côte-Nord	4 874 527	700	271 877	442 386	5 589 490	..	..	..	..	..	..
10 Nord-du-Québec	5 194 850	..	474 714	245 498	5 915 062	..	..	..	..	..	..
11 Gaspésie—Îles-de-la-Madeleine	1 524 856	36 522	143 672	134 248	1 839 298	..	..	..	..	..	..
12 Chaudière-Appalaches	155 804	17 717	24 416	54 011	251 948	..	..	..	..	..	..
13 Laval	..	..	..	..	..	..	..	..	..	..	..
14 Lanaudière	537 547	31 369	157 135	377 190	1 103 241	..	..	..	..	..	..
15 Laurentides	649 075	118 572	135 810	967 616	1 871 073	..	..	..	..	..	..
16 Montérégie	..	..	..	..	..	..	..	..	..	..	..
17 Centre-du-Québec	..	..	..	..	..	..	..	..	..	..	..
<b>TOTAL</b>	<b>29 138 269</b>	<b>1 328 600</b>	<b>3 674 344</b>	<b>7 762 113</b>	<b>41 903 326</b>	..	..	..	..	..	..

### Allowable annual cut<sup>4</sup> by administrative region<sup>5</sup> on March 31, 2002 (private forests) (m<sup>3</sup>)

Administrative regions	Allowable annual cut					Current volumes					TOTAL
	Fir spruce jack pine larch	Other softwoods	Poplars	Other hardwoods	Subtotal	Fir spruce jack pine larch	Other softwoods	Poplars	Other hardwoods	Subtotal	
01 Bas-Saint-Laurent	808 550	60 700	373 900	316 200	1 559 350	25 800	28 300	172 100	92 800	319 000	1 878 350
02 Saguenay—Lac-Saint-Jean	303 800	3 600	191 600	81 800	580 800	..	..	..	..	..	580 800
03 Capitale-Nationale	393 000	38 500	158 400	370 000	959 900	..	..	..	..	..	959 900
04 Mauricie	457 700	33 900	71 200	253 900	816 700	..	..	..	..	..	816 700
05 Estrie	494 100	132 200	127 500	555 000	1 308 800	6 000	30 400	..	19 600	56 000	1 364 800
06 Montréal	..	..	..	..	..	..	..	..	..	..	..
07 Outaouais	172 600	220 600	269 000	557 500	1 219 700	..	..	..	..	..	1 219 700
08 Abitibi-Témiscamingue	233 400	15 700	521 400	74 100	844 600	..	..	..	..	..	844 600
09 Côte-Nord	113 300	1 300	51 900	31 600	198 100	..	..	..	..	..	198 100
10 Nord-du-Québec	..	..	..	..	..	..	..	..	..	..	..
11 Gaspésie—Îles-de-la-Madeleine	259 100	19 800	110 500	136 200	525 600	19 400	28 600	29 600	35 600	113 200	638 800
12 Chaudière-Appalaches	913 400	165 100	169 700	714 700	1 962 900	8 000	45 000	12 000	..	65 000	2 027 900
13 Laval	..	..	..	..	..	..	..	..	..	..	..
14 Lanaudière	88 700	28 300	38 100	158 700	313 800	..	..	..	..	..	313 800
15 Laurentides	211 300	73 600	140 400	427 000	852 300	4 600	44 300	14 100	35 400	98 400	950 700
16 Montérégie	36 300	66 200	30 000	283 900	416 400	..	..	..	..	..	416 400
17 Centre-du-Québec	154 400	57 800	58 000	139 600	409 800	..	..	..	..	..	409 800
<b>TOTAL</b>	<b>4 639 650</b>	<b>917 300</b>	<b>2 311 600</b>	<b>4 100 200</b>	<b>11 968 750</b>	<b>63 800</b>	<b>176 600</b>	<b>227 800</b>	<b>183 400</b>	<b>651 600</b>	<b>12 620 350</b>

1. TSFMA : timber supply and forest management agreement.

2. Volumes are distributed proportionally to the size of common areas located in the region.

3. Data not available at this time.

4. Established by the regional agencies for private forest development as part of the PFPDP.

5. Includes small and large private holdings and excludes Category 1 lands.

## 5 Forest management

Allowable annual cut (cont'd)

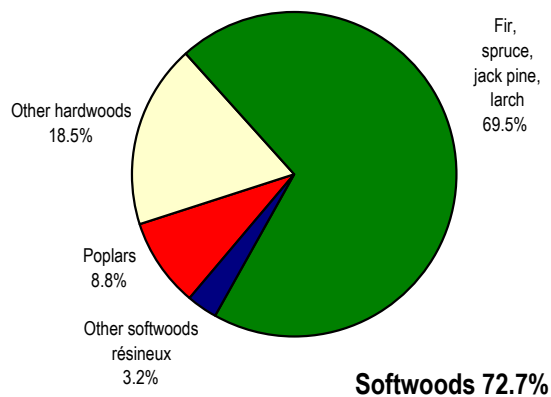
Breakdown of allowable annual cut by species (2002)

05.01.02

05.01.03

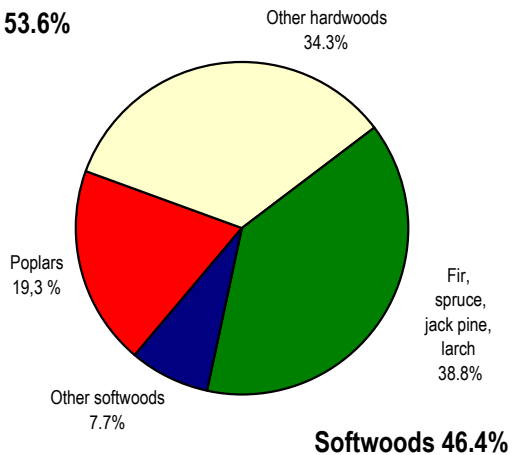
### Public forests (allowable annual cut in common areas)

Hardwoods 27.3%



### Private forests (allowable annual cut in agency territories)

Hardwoods 53.6%



## 5 Forest management

### Allowable annual cut (cont'd)

#### Breakdown of allowable annual cut by species (2002)

05.01.02 (g)

Volume allowable (common areas)	
Poplars	8.8%
Other hardwoods	18.5%
<b>Total</b>	<b>27.3%</b>
Fir, spruce, jack pine, larch	69.5%
Others softwoods	3.2%
<b>Total</b>	<b>72.7%</b>

05.01.03 (g)

Volume allowable (private forests)	
Poplars	19.3%
Other hardwoods	34.3%
<b>Total</b>	<b>53.6%</b>
Fir, spruce, jack pine, larch	38.8%
Others softwoods	7.7%
<b>Total</b>	<b>46.4%</b>

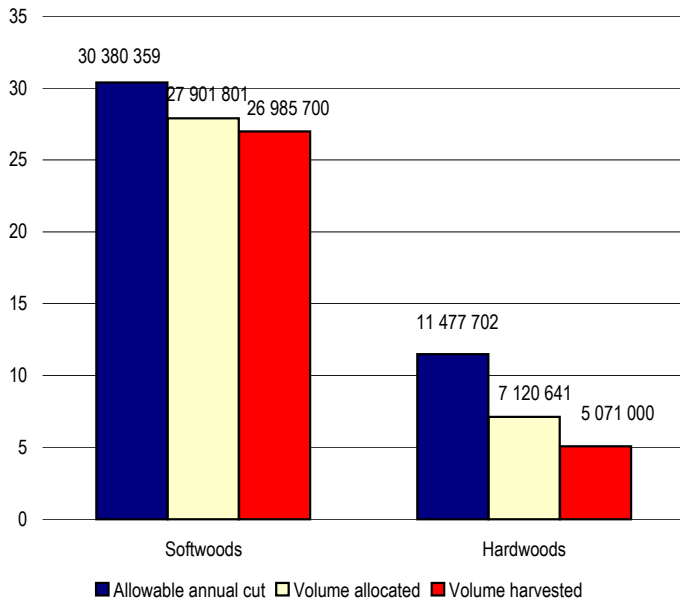
## 5 Forest management

### Allowable annual cut (cont'd)

### Allowable annual cut/volume allocated (common areas)/volumes harvested (public forests)

By species group (2000-2001)

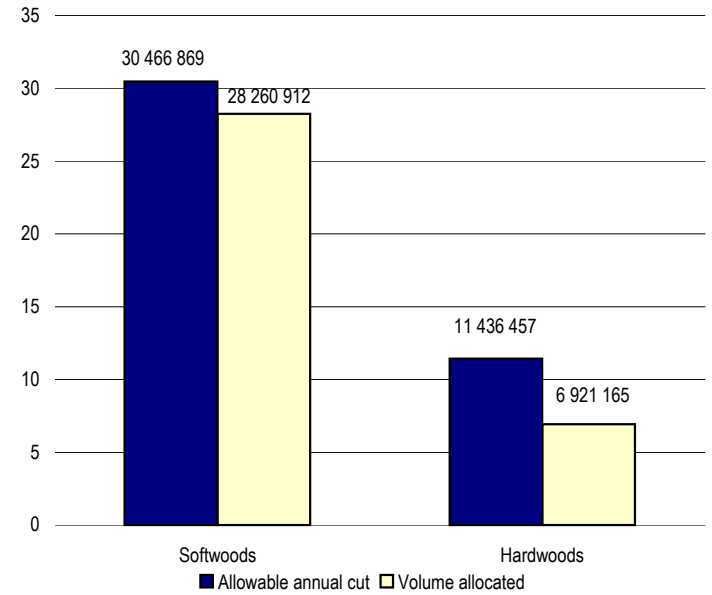
(m<sup>3</sup>, millions)



By species group (2001-2002)

(m<sup>3</sup>, millions)

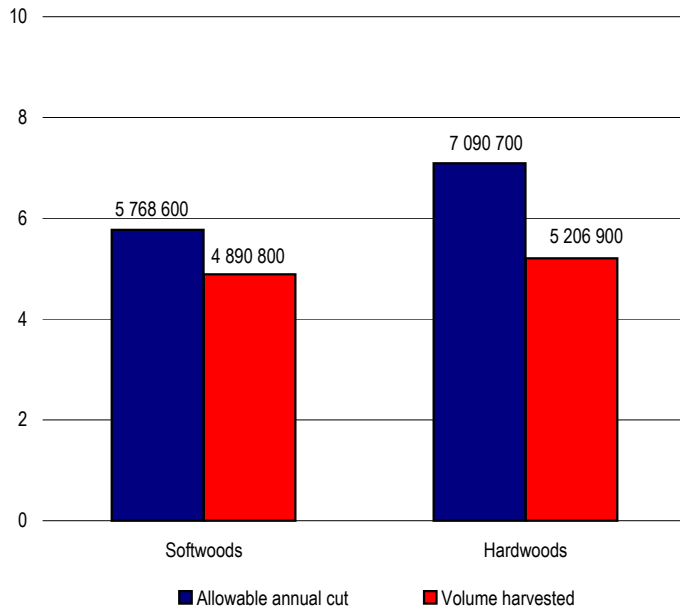
05.01.10



### Allowable annual cut / volumes harvested <sup>1</sup> (private forests)

By species group (2000-2001)

(m<sup>3</sup>, millions)

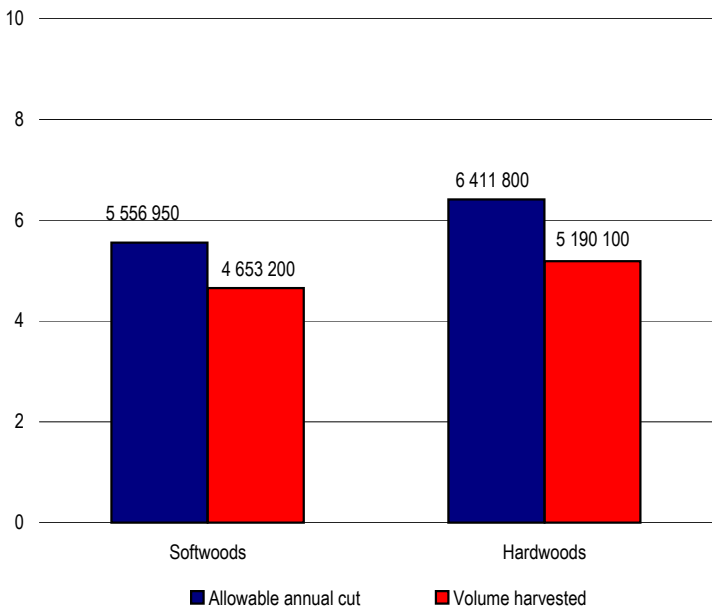


### Allowable annual cut / volumes harvested <sup>1</sup> (private forests)

By species group (2001-2002)

(m<sup>3</sup>, millions)

05.01.11



1. Including an estimated volume of firewood (2.0 million m<sup>3</sup> of hardwoods).

1. Including an estimated volume of firewood (2.0 million m<sup>3</sup> of hardwoods).

## 5 Forest management

### Allowable annual cut (cont'd)

#### Allowable annual cut/volume allocated (common areas)/volumes harvested (public forests)

05.01.10 (g)

By species group (2000-2001)

	Allowable annual cut (m <sup>3</sup> , millions)	Volume allocated (m <sup>3</sup> , millions)	Volume harvested (m <sup>3</sup> , millions)
Softwoods	30.38	27.90	26.99
Hardwoods	11.48	7.12	5.07

By species groupe (2001-2002)

	Allowable annual cut (m <sup>3</sup> , millions)	Volume allocated (m <sup>3</sup> , millions)
Softwoods	30.47	28.26
Hardwoods	11.44	6.92

#### Allowable annual cut/volumes harvested (private forests)

05.01.11 (g)

By species group (2000-2001)

	Allowable annual cut (m <sup>3</sup> , millions)	Volume harvested <sup>1</sup> (m <sup>3</sup> , millions)
Softwoods	5.77	4.89
Hardwoods	7.09	5.21

1. Including an estimated volume of firewood (2,0 million m<sup>3</sup> of hardwoods).

#### Allowable annual cut/volumes harvested (private forests)

Bye species group (2001-2002)

	Allowable annual cut (m <sup>3</sup> , millions)	Volume harvested <sup>1</sup> (m <sup>3</sup> , millions)
Softwoods	5.56	4.65
Hardwoods	6.41	5.19

1. Including an estimated volume of firewood (2,0 million m<sup>3</sup> of hardwoods).



## 5 Forest management

### Harvest

#### Volume of timber harvested in public and private forests

05.02.01

##### A) By tenure and species group

	1997-1998		1998-1999		1999-2000		2000-2001		2001-2002	
	TOTAL		TOTAL		TOTAL		TOTAL		TOTAL	
	(m <sup>3</sup> , 000s)	(%)	(m <sup>3</sup> , 000s)	(%)	(m <sup>3</sup> , 000s)	(%)	(m <sup>3</sup> , 000s)	(%)	(m <sup>3</sup> , 000s)	(%)
<b>TOTAL</b>	<b>42 152</b>	<b>100</b>	<b>43 025</b>	<b>100</b>	<b>44 287</b>	<b>100</b>	<b>42 155p</b>	<b>100.0</b>	<b>40 149p</b>	<b>100</b>
Softwoods	32 440	77	32 308	75	33 934	77	31 877p	75.6	29 792p	74
Hardwoods	9 712	23	10 717	25	10 353	23	10 278p	24.4	10 357p	26
<b>Québec public lands <sup>1</sup></b>	<b>32 571</b>	<b>100</b>	<b>33 002</b>	<b>100</b>	<b>33 713</b>	<b>100</b>	<b>32 057p</b>	<b>100.0</b>	<b>30 306p</b>	<b>100</b>
Softwoods	27 950	86	27 754	84	29 003	86	26 986p	84.2	25 139p	83
Hardwoods	4 621	14	5 248	16	4 710	14	5 071p	15.8	5 167p	17
<b>Private holdings <sup>2</sup></b>	<b>9 581</b>	<b>100</b>	<b>10 023</b>	<b>100</b>	<b>10 574</b>	<b>100</b>	<b>10 098p</b>	<b>100.0</b>	<b>9 843p</b>	<b>100</b>
Softwoods	4 490	47	4 554	45	4 931	47	4 891p	48.4	4 653p	47
Hardwoods	5 091	53	5 469	55	5 643	53	5 207p	51.6	5 190p	53

1. Volume of timber harvested and actually measured in public forests, not including small volumes harvested for specific purposes (public utility works, mining activities, wildlife and leisure developments, etc.)

2. Estimated volume harvested in private forests by individual producers or producers' groups, including chips and firewood (approx. 2 million m<sup>3</sup>), but excluding small volumes of roundwood harvested for export.

## 5 Forest management

### Harvest (cont'd)

#### Volume of timber harvested in public and private forests (cont'd)

##### B) By administrative region (m<sup>3</sup>, 000s)

1999-2000

05.02.02

Administrative regions	Public forests <sup>1</sup>						Private forests <sup>2</sup>					
	Fir, spruce, jack pine, larch	Other softwoods	TOTAL SOFTWOODS	Poplars	Other hardwoods	TOTAL HARDWOODS	Fir, spruce, jack pine, larch	Other softwoods	TOTAL SOFTWOODS	Poplars	Other hardwoods	TOTAL HARDWOODS
01 Bas-Saint-Laurent	1 319.8	43.3	1 363.1	118.6	220.7	339.3	854.1	94.8	948.9	456.6	227.9	684.5
02 Saguenay—Lac-Saint-Jean	8 112.8	0.5	8 113.3	345.5	282.9	628.4	348.1	0.7	348.7	162.6	53.3	215.9
03 Capitale-Nationale	822.0	1.3	823.3	24.6	62.3	86.9	401.1	23.6	424.7	106.1	199.6	305.7
04 Mauricie	2 618.2	30.4	2 648.6	368.4	235.4	603.8	483.5	28.0	511.5	52.7	177.6	230.3
05 Estrie	33.8	0.6	34.4	12.7	30.9	43.6	440.9	116.2	557.1	110.9	717.2	828.1
06 Montréal	-	-	-	-	-	-	-	-	-	-	-	-
07 Outaouais	415.3	384.3	799.6	349.5	654.6	1 004.1	140.6	86.2	226.8	324.3	516.8	841.1
08 Abitibi-Témiscamingue	2 546.4	196.2	2 742.6	374.2	257.8	631.9	66.5	11.0	77.5	290.9	35.7	326.6
09 Côte-Nord	4 476.8	18.0	4 494.8	6.8	13.9	20.7	73.2	0.1	73.3	39.3	10.6	49.8
10 Nord-du-Québec	5 125.0	-	5 125.0	364.9	0.4	365.3	-	-	-	-	-	-
11 Gaspésie—Îles-de-la-Madeleine	1 572.0	38.9	1 610.9	51.1	28.0	79.1	231.2	15.7	246.9	48.1	39.5	87.6
12 Chaudière-Appalaches	126.4	7.7	134.2	9.3	28.7	38.0	738.3	88.7	827.0	173.7	518.4	692.1
13 Laval	-	-	-	-	-	-	-	-	-	-	-	-
14 Lanaudière	429.5	14.9	444.4	101.1	158.3	259.4	111.9	33.7	145.6	47.6	141.9	189.5
15 Laurentides	628.2	38.5	666.8	87.9	520.7	608.6	201.3	29.0	230.3	169.4	400.6	570.1
16 Montérégie	-	-	-	-	-	-	31.8	40.7	72.5	25.1	300.5	325.6
17 Centre-du-Québec	2.1	0.1	2.2	0.1	0.6	0.7	185.3	54.9	240.2	43.7	252.4	296.2
<b>Total</b>	<b>28 228.4</b>	<b>774.7</b>	<b>29 003.1</b>	<b>2 214.7</b>	<b>2 495.2</b>	<b>4 709.9</b>	<b>4 307.6</b>	<b>623.3</b>	<b>4 931.0</b>	<b>2 051.2</b>	<b>3 592.0</b>	<b>5 643.2</b>

1. Volume of timber harvested and scaled in public forests, not including small volumes harvested for specific purposes (public utility works, mining activities, wildlife and leisure developments, etc.).

2. Estimated volume harvested in private forests by individual producers or producers' groups, including chips and firewood (approx. 2 million m<sup>3</sup>), but excluding small volumes of roundwood harvested for export.

##### 2000-2001

05.02.03

Administrative regions	Public forests <sup>1</sup>						Private forests <sup>2</sup>					
	Fir, spruce, jack pine, larch	Other softwoods	TOTAL SOFTWOODS	Poplars	Other hardwoods	TOTAL HARDWOODS	Fir, spruce, jack pine, larch	Other softwoods	TOTAL SOFTWOODS	Poplars	Other hardwoods	TOTAL HARDWOODS
01 Bas-Saint-Laurent	943.1	34.9	978.0	105.2	188.8	293.9	752.0	90.5	842.5	491.4	222.1	713.5
02 Saguenay—Lac-Saint-Jean	7 430.2	0.0	7 430.2	446.9	364.0	810.9	324.0	1.5	325.5	21.7	42.8	64.5
03 Capitale-Nationale	606.5	1.0	607.6	25.3	56.0	81.3	408.0	24.0	432.0	136.5	219.3	355.8
04 Mauricie	2 649.3	24.9	2 674.2	316.9	311.7	628.6	534.7	30.3	565.0	32.1	163.0	195.1
05 Estrie	36.4	1.3	37.7	8.9	33.5	42.4	471.5	74.5	546.0	108.1	624.1	732.2
06 Montréal	-	-	-	-	-	-	-	-	-	-	-	-
07 Outaouais	443.5	339.0	782.5	298.8	724.5	1 023.3	195.7	99.8	295.5	294.7	481.1	775.9
08 Abitibi-Témiscamingue	2 516.8	258.0	2 774.8	427.2	376.2	803.5	151.8	2.2	154.0	266.3	21.4	287.8
09 Côte-Nord	4 712.9	-	4 712.9	6.0	15.9	21.9	50.3	-	50.3	18.4	7.1	25.4
10 Nord-du-Québec	4 518.0	-	4 518.0	287.5	13.5	301.0	-	-	-	-	-	-
11 Gaspésie—Îles-de-la-Madeleine	1 325.8	25.5	1 351.3	93.1	46.7	139.9	137.9	28.8	166.7	49.5	53.4	102.9
12 Chaudière-Appalaches	114.3	9.6	124.0	12.9	25.9	38.8	801.7	85.9	887.6	161.2	496.6	657.8
13 Laval	-	-	-	-	-	-	-	-	-	-	-	-
14 Lanaudière	449.0	6.0	455.0	103.6	154.9	258.5	84.0	39.7	123.7	45.9	150.4	196.3
15 Laurentides	482.6	47.8	530.4	97.7	523.0	620.7	192.2	26.5	218.8	166.7	359.0	525.7
16 Montérégie	6.9	2.2	9.2	0.7	5.6	6.3	22.0	45.8	67.8	23.8	297.4	321.1
17 Centre-du-Québec	-	-	-	-	-	-	160.8	54.5	215.3	41.9	210.9	252.9
<b>TOTAL</b>	<b>26 235.5</b>	<b>750.2</b>	<b>22 272.8</b>	<b>2 230.8</b>	<b>2 840.2</b>	<b>5 071.0</b>	<b>4 286.7</b>	<b>604.1</b>	<b>4 890.8</b>	<b>1 858.3</b>	<b>3 348.6</b>	<b>5 206.9</b>

1. Volume of timber harvested and actually measured in public forests, not including small volumes harvested for specific purposes (public utility works, mining activities, wildlife and leisure developments, etc.).

2. Estimated volume harvested in private forests by individual producers or producers' groups, including chips and firewood (approx. 2 million m<sup>3</sup>), but excluding small volumes of roundwood harvested for export.

## 5 Forest management

### Harvest (cont'd)

#### Volume of timber harvested in public and private forests (cont'd)

##### B) By administrative region (m<sup>3</sup>, 000s) (cont'd)

2001-2002

05.02.04

Administrative regions	Public forests <sup>1</sup>						Private forests <sup>2</sup>					
	Fir, spruce, jack pine, larch	Other softwoods	TOTAL SOFTWOODS	Poplars	Other hardwoods	TOTAL HARDWOODS	Fir, spruce, jack pine, larch	Other softwoods	TOTAL SOFTWOODS	Poplars	Other hardwoods	TOTAL HARDWOODS
01 Bas-Saint-Laurent	807.2p	28.6p	835.8p	118.8p	194.6p	313.4p	739.6p	52.9p	792.5p	524.4p	233.9p	758.3p
02 Saguenay—Lac-Saint-Jean	6 823.6p	-	6 823.6p	452.0p	388.2p	840.2p	283.9p	0.1p	284.0p	37.8p	44.3p	82.1p
03 Capitale-Nationale	525.9p	0.7p	526.6p	30.1p	60.9p	91.0p	393.1p	0.1p	393.2p	154.7p	241.2p	395.8p
04 Mauricie	2 561.7p	29.6p	2 591.3p	335.5p	380.6p	716.1p	353.7p	26.6p	380.2p	30.2p	156.1p	186.3p
05 Estrie	26.4p	0.9p	27.3p	10.8p	27.3p	38.1p	449.0p	34.2p	483.2p	97.4p	569.5p	667.0p
06 Montréal	-	-	-	-	-	-	-	116.2p	116.2p	-	-	-
07 Outaouais	388.9p	327.8p	716.7p	258.7p	731.8p	990.5p	122.8p	105.9p	228.7p	262.0p	477.8p	739.7p
08 Abitibi-Témiscamingue	2 824.3p	226.9p	3 051.2p	386.6p	282.4p	669.0p	194.1p	3.5p	197.6p	255.5p	18.4p	273.9p
09 Côte-Nord	3 760.0p	-	3 760.0p	3.9p	11.0p	14.9p	59.8p	0.7p	60.5p	35.0p	7.2p	42.1p
10 Nord-du-Québec	4 267.0p	-	4 267.0p	278.2p	9.0p	287.2p	-	0.2p	0.2p	-	-	-
11 Gaspésie—Îles-de-la-Madeleine	1 293.6p	13.8p	1 307.4p	125.8p	73.8p	199.6p	165.3p	29.2p	194.5p	61.2p	61.7p	123.0p
12 Chaudière-Appalaches	153.0p	12.0p	165.0p	20.5p	24.3p	44.8p	804.9p	66.2p	871.1p	135.0p	481.9p	616.9p
13 Laval	-	-	-	-	-	-	-	33.6p	33.6p	-	-	-
14 Lanaudière	523.2p	8.0p	531.2p	142.1p	162.9p	305.0p	74.3p	35.8p	110.1p	37.9p	153.3p	191.1p
15 Laurentides	483.7p	46.1p	529.8p	63.8p	592.7p	656.5p	183.6p	36.8p	220.4p	144.2p	398.9p	543.2p
16 Montérégie	-	-	-	-	-	-	30.5p	37.0p	67.5p	20.6p	292.9p	313.5p
17 Centre-du-Québec	4.0p	0.3p	4.3p	0.9p	1.5p	2.4p	168.6p	51.0p	219.5p	38.5p	218.8p	257.2p
<b>TOTAL</b>	<b>24 442.5p</b>	<b>694.7p</b>	<b>25 137.2p</b>	<b>2 227.7p</b>	<b>2 941.0p</b>	<b>5 168.7p</b>	<b>4 023.2p</b>	<b>630.0p</b>	<b>4 653.2p</b>	<b>1 834.3p</b>	<b>3 355.8p</b>	<b>5 190.1p</b>

1. Volume of timber harvested and actually measured in public forests, not including small volumes harvested for specific purposes (public utility works, mining activities, wildlife and leisure developments, etc.).

2. Estimated volume harvested in private forests by individual producers or producers' groups, including chips and firewood (approx. 2 million m<sup>3</sup>), but excluding small volumes of roundwood harvested for export.

## 5 Forest management

### Forest dues

#### Market value of standing timber in public forests by quality and mean provincial unit rates, 2000-2001 to 2002-2003 (\$/m<sup>3</sup>)

05.03.06

Species group	Quality <sup>2</sup>	Fiscal year (period) <sup>1,3</sup>														
		2000-2001					2001-2002					2002-2003				
		1 <sup>st</sup> per.	2 <sup>nd</sup> per.	3 <sup>rd</sup> per.	4 <sup>th</sup> per.	Mean	1 <sup>st</sup> per.	2 <sup>nd</sup> per.	3 <sup>rd</sup> per.	4 <sup>th</sup> per.	Mean	1 <sup>st</sup> per.	2 <sup>nd</sup> per.	3 <sup>rd</sup> per.	4 <sup>th</sup> per.	Mean
Fir, spruce, jack pine, larch	A (pole)	16.35	16.60	16.60	16.61	16.54	17.37	17.23	17.19	17.19	17.25	17.26	17.26	17.43	17.43	17.34
	B (saw timber, pulpwood)	12.35	12.22	11.28	10.79	11.66	9.78	11.17	11.92	11.11	10.99	11.09	12.07	11.11	10.55	11.20
White pine	B (saw timber, peeling)	16.59	16.51	16.53	16.39	16.50	16.31	16.23	16.41	16.55	16.38	18.03	17.94	17.83	17.43	17.81
Red pine	A (pole)	23.63	23.98	23.98	24.00	23.90	24.25	24.06	24.01	24.01	24.09	24.21	24.21	24.25	24.45	24.33
	B (saw timber)	11.88	11.83	11.84	11.74	11.82	11.49	11.43	11.56	11.66	11.54	12.86	12.79	12.72	12.43	12.70
Hemlock, cedar	B (saw timber)	4.25	4.15	3.67	3.40	3.87	3.32	4.01	4.49	4.15	3.99	3.44	3.88	3.51	3.25	3.52
White and red pine, hemlock, cedar	C (pulpwood)	1.85	1.95	2.06	2.08	1.99	1.81	1.75	1.69	1.57	1.71	1.96	2.19	2.00	1.87	2.00
Oak, cherry, walnut, hickory	A (peeling)	36.09	37.66	38.86	38.58	37.80	65.70	64.75	63.05	63.75	64.31	48.65	48.34	48.60	49.11	48.68
	B (saw timber)	22.18	22.41	22.96	22.71	22.56	24.16	23.56	22.90	23.01	23.41	23.91	24.39	24.70	25.35	24.59
	C (saw timber)	8.33	8.41	8.62	8.52	8.47	9.38	9.15	8.89	8.94	9.09	10.32	10.53	10.66	10.94	10.61
Yellow birch, ash, basswood, elm	A (peeling)	22.60	23.58	24.33	24.16	23.67	50.02	49.30	48.01	48.53	48.97	46.75	46.46	46.71	47.20	46.78
	B (saw timber)	13.53	13.66	14.00	13.85	13.76	18.22	17.77	17.27	17.35	17.65	17.61	17.96	18.19	18.67	18.11
	C (saw timber)	4.93	4.98	5.10	5.05	5.02	7.02	6.85	6.66	6.69	6.80	7.38	7.53	7.63	7.82	7.59
White birch	A (peeling)	12.40	12.94	13.36	13.26	12.99	35.60	35.09	34.17	34.54	34.85	35.37	35.14	35.33	35.71	35.39
	B (saw timber)	6.14	6.21	6.36	6.29	6.25	12.68	12.37	12.02	12.08	12.29	10.28	10.49	10.62	10.90	10.57
	C (saw timber)	2.27	2.30	2.35	2.33	2.31	4.91	4.79	4.65	4.68	4.76	3.91	3.99	4.04	4.15	4.03
Maple	B (saw timber)	18.45	19.08	19.00	19.46	19.00	24.05	23.25	22.53	23.69	23.38	21.98	21.85	21.87	22.09	21.95
	C (saw timber)	4.36	4.50	4.49	4.59	4.49	6.00	5.80	5.62	5.91	5.83	5.46	5.42	5.43	5.48	5.45
Other hardwoods	B (saw timber)	7.18	7.25	7.43	7.35	7.30	8.74	8.52	8.28	8.33	8.47	8.21	8.37	8.48	8.70	8.44
	C (saw timber)	2.58	2.61	2.67	2.64	2.62	3.84	3.75	3.64	3.66	3.72	3.57	3.64	3.69	3.79	3.67
Poplars	B (saw timber, peeling)	5.49	5.99	4.57	4.23	5.07	3.44	3.86	4.09	3.58	3.74	3.63	4.18	3.87	3.94	3.90
	C (pulpwood)	5.49	5.99	4.57	4.23	5.07	3.44	3.86	4.09	3.58	3.74	3.63	4.18	3.87	3.94	3.90
All hardwoods except poplars	D (pulpwood)	1.72	1.85	1.93	1.97	1.87	2.99	2.71	2.61	2.37	2.67	1.73	1.96	2.13	2.19	2.00
All species	All qualities	11.24	11.19	10.33	9.90	10.67	9.11	10.24	10.85	10.15	10.09	10.10	10.96	10.16	9.72	10.24
Quality hardwoods	All qualities	5.00	5.16	5.25	5.29	5.18	6.93	6.61	6.41	6.38	6.58	5.77	5.95	6.09	6.22	6.00
Poplars	All qualities	5.49	5.99	4.57	4.23	5.07	3.44	3.86	4.09	3.58	3.74	3.63	4.18	3.87	3.94	3.90

1. 1<sup>st</sup> period from April 1 to June 30; 2<sup>nd</sup> period from July 1 to September 30; 3<sup>rd</sup> period from October 1 to December 31; 4<sup>th</sup> period from January 1 to March 31.

2. The letters A, B, C and D correspond to the quality assigned during wood grading based on species, diameter, length and imperfections observed on the trunk and crosscuts

3. Since 1997-1998, mean unit rates have been estimated from the volume of timber harvested in each tariff zone during the previous year, for all species groups except FSPL

# 5 Forest management

## Seedling production

### Seedling production (000s) by administrative region <sup>1</sup> and producer category

05.05.05

Administrative regions	Producers	1998-1999			1999-2000			2000-2001			2001-2002		
		Bareroot	Container	TOTAL	Bareroot	Container	TOTAL	Bareroot	Container	TOTAL	Bareroot	Container	TOTAL
01 Bas-Saint-Laurent	FF <sup>2</sup>	10 315	7 154	17 469	10 621	7 032	17 653	8 545	9 941	18 485	8 182	8 035	16 217
	P&FC <sup>3</sup>		11 653	11 653		9 993	9 993		10 384	10 384		10 823	10 823
	<b>TOTAL</b>	<b>10 315</b>	<b>18 807</b>	<b>29 121</b>	<b>10 621</b>	<b>17 025</b>	<b>27 646</b>	<b>8 545</b>	<b>20 325</b>	<b>28 869</b>	<b>8 182</b>	<b>18 858</b>	<b>27 040</b>
02 Saguenay—Lac-Saint-Jean	FF	2 772	7 438	10 210	2 946	3 586	6 533	3 707	2 729	6 436	3 072	3 543	6 615
	P&FC		19 203	19 203		16 080	16 080		22 920	22 920		21 149	21 149
	<b>TOTAL</b>	<b>2 772</b>	<b>19 203</b>	<b>29 413</b>	<b>2 946</b>	<b>19 203</b>	<b>22 613</b>	<b>3 707</b>	<b>19 203</b>	<b>29 356</b>	<b>3 072</b>	<b>19 203</b>	<b>27 764</b>
03 Capitale-Nationale	FF												
	P&FC		10 519	10 519		9 264	9 264		7 269	7 269		8 164	8 164
	<b>TOTAL</b>		<b>10 519</b>	<b>10 519</b>		<b>9 264</b>	<b>9 264</b>		<b>7 269</b>	<b>7 269</b>		<b>8 164</b>	<b>8 164</b>
04 Mauricie and 17 Centre-du-Québec	FF	3 534	1 237	4 770	2 614	1 470	4 084	2 160	1 195	3 356	1 523	1 432	2 955
	P&FC		27 389	27 389		26 070	26 070		21 171	21 171		16 555	16 555
	<b>TOTAL</b>	<b>3 534</b>	<b>28 625</b>	<b>32 159</b>	<b>2 614</b>	<b>27 540</b>	<b>30 154</b>	<b>2 160</b>	<b>22 366</b>	<b>24 526</b>	<b>1 523</b>	<b>17 987</b>	<b>19 510</b>
05 Estrie	FF												
	P&FC												
	<b>TOTAL</b>												
07 Outaouais	FF												
	P&FC	2 061	6 021	8 081		8 915	8 915		6 654	6 654		8 496	8 496
	<b>TOTAL</b>		<b>6 021</b>	<b>8 081</b>		<b>8 915</b>	<b>8 915</b>		<b>6 654</b>	<b>6 654</b>		<b>8 496</b>	<b>8 496</b>
08 Abitibi-Témiscamingue	FF	2 246	6 838	9 084	1 859	5 564	7 423	1 321	6 776	8 098	1 305	5 251	6 556
	P&FC		16 288	16 288		9 851	9 851		12 821	12 821		19 114	19 114
	<b>TOTAL</b>	<b>2 246</b>	<b>23 126</b>	<b>25 371</b>	<b>1 859</b>	<b>15 415</b>	<b>17 274</b>	<b>1 321</b>	<b>19 597</b>	<b>20 918</b>	<b>1 305</b>	<b>24 365</b>	<b>25 670</b>
09 Côte-Nord	FF												
	P&FC		8 455	8 455		4 812	4 812		9 260	9 260		11 111	11 111
	<b>TOTAL</b>		<b>8 455</b>	<b>8 455</b>		<b>4 812</b>	<b>4 812</b>		<b>9 260</b>	<b>9 260</b>		<b>11 111</b>	<b>11 111</b>
11 Gaspésie—Îles-de-la-Madeleine	FF												
	P&FC		6 122	6 122		7 263	7 263		5 923	5 923		5 715	5 715
	<b>TOTAL</b>		<b>6 122</b>	<b>6 122</b>		<b>7 263</b>	<b>7 263</b>		<b>5 923</b>	<b>5 923</b>		<b>5 715</b>	<b>5 715</b>
12 Chaudière-Appalaches	FF												
	P&FC		1 840	1 840	1 930	2 233	4 162	2 168	1 733	3 901	2 238	1 889	4 127
	<b>TOTAL</b>		<b>1 840</b>	<b>1 840</b>	<b>1 930</b>	<b>2 233</b>	<b>4 162</b>	<b>2 168</b>	<b>1 733</b>	<b>3 901</b>	<b>2 238</b>	<b>1 889</b>	<b>4 127</b>
14 Lanaudière	FF	2 365	1 672	4 037	2 089	2 835	4 924	2 401	2 685	5 085	2 439	3 603	6 042
	P&FC												
	<b>TOTAL</b>	<b>2 365</b>	<b>1 672</b>	<b>4 037</b>	<b>2 089</b>	<b>2 835</b>	<b>4 924</b>	<b>2 401</b>	<b>2 685</b>	<b>5 085</b>	<b>2 439</b>	<b>3 603</b>	<b>6 042</b>
15 Laurentides	FF												
	P&FC		17 072	17 072		18 231	18 231		16 225	16 225		12 323	12 323
	<b>TOTAL</b>		<b>17 072</b>	<b>17 072</b>		<b>18 231</b>	<b>18 231</b>		<b>16 225</b>	<b>16 225</b>		<b>12 323</b>	<b>12 323</b>
<b>TOTAL</b>	FF	21 231	24 338	45 569	20 129	20 487	40 616	18 134	23 326	41 460	16 521	21 864	38 385
	P&FC	2 061	124 560	126 621	1 930	112 712	114 642	2 168	114 359	116 526	2 238	115 339	117 577
	<b>TOTAL</b>	<b>23 292</b>	<b>148 898</b>	<b>172 190</b>	<b>22 058</b>	<b>133 199</b>	<b>155 257</b>	<b>20 302</b>	<b>137 685</b>	<b>157 987</b>	<b>18 759</b>	<b>137 203</b>	<b>155 962</b>

1. There is no seedling production in regions 06 (Montréal), 10 (Nord-du-Québec), 13 (Laval) and 16 (Montérégie).

2. FF: Forestry Fund nurseries.

3. P&FC: Private producers and forest companies.

# 5 Forest management

## Summary of silvicultural treatments carried out

05.14.01

### A) Public forests

Treatments	Area (1999-2000)					Area (2000-2001)					
	TSFMA <sup>1</sup>		MRNFP <sup>2</sup>		TOTAL	TSFMA		MRNFP		TOTAL	
	(ha)	(%)	(ha)	(%)	(ha)	(ha)	(%)	(ha)	(%)	(ha)	
Site preparation											
1) Scarifying	42 808r	100.0			42 808r	37 306r	100.0			37 306r	
2) Clearing	6 425r	100.0			6 425r	8 591r	100.0			8 591r	
3) Brushing	28r	100.0			28r	6r	100.0			6r	
4) Harrowing											
5) Removal of residual stems	266r	58.8	186r	41.2	452r	1 034r				1 034r	
<b>TOTAL</b>	<b>49 527r</b>	<b>99.6</b>	<b>186r</b>	<b>0.4</b>	<b>49 713r</b>	<b>46 937r</b>	<b>100.0</b>			<b>46 937r</b>	
Reforestation and seeding											
1) Planting	(ha)										
	(Seedlings, millions)										
1) Planting	37 718r	100.0			37 718r	39 022r	100.0			39 022r	
	(Seedlings, millions)										
	68r	100.0			68r	72r	100.0			72r	
2) Reinforcement	(ha)										
	(Seedlings, millions)										
2) Reinforcement	20 035r	100.0			20 035r	12 808r	100.0			12 808r	
	(Seedlings, millions)										
	22r	100.0			22r	13r	100.0			13r	
3) Enrichment	(ha)										
	(Seedlings, millions)										
3) Enrichment	2 131r	100.0			2 131r	2 378r	100.0			2 378r	
	(Seedlings, millions)										
	1r	100.0			1r	1r	100.0			1r	
4) Regeneration of SBBA <sup>3</sup>	Naturel (ha)										
	Artificial (ha)										
	(Plants, millions)										
	9 697r	100.0			9 697r	9 880r	100.0			9 880r	
	(Plants, millions)										
	15r	100.0			15r	11r	100.0			11r	
5) Seeding	(ha)										
	(ha)										
	1 915r	100.0			1 915r	176r	100.0			176r	
<b>TOTAL</b>	<b>(ha)</b>	<b>100.0</b>			<b>71 496r</b>	<b>64 264r</b>	<b>100.0</b>			<b>64 264r</b>	
	<b>(Seedlings, millions)</b>	<b>100.0</b>			<b>106r</b>	<b>97r</b>	<b>100.0</b>			<b>97r</b>	
Noncommercial treatments											
1) Release (plantations)	18 495r	99.1	165r	0.9	18 660r	13 169r	99.0	130r	1.0	13 299r	
2) Release (natural regeneration)	1 693r	100.0			1 693r	2 048r	100.0			2 048r	
3) Pre-commercial thinning	102 220r	99.3	722r	0.7	102 942r	78 090r	98.6	1 128r	1.4	79 218r	
4) Phytosanitary control	24r	100.0			24r	23r	100.0			23r	
5) Fertilization											
6) Drainage	3 105r	100.0			3 105r	2 097r	100.0			2 097r	
<b>TOTAL</b>	<b>125 537r</b>	<b>99.3</b>	<b>887r</b>	<b>0.7</b>	<b>126 424r</b>	<b>95 427r</b>	<b>98.7</b>	<b>1 258r</b>	<b>1.3</b>	<b>96 685r</b>	
Commercial treatments											
1) Cutting with protection of regeneration and soils	250 809r	100.0			250 809r	218 374r	100.0			218 374r	
- Merchantable trees	655r	100.0			655r	8 611r	100.0			8 611r	
- Tall regeneration						333r	100.0			333r	
- With seed reserve	4 168r	100.0			4 168r	3 699r	100.0			3 699r	
2) Block cutting						18 200r	100.0			18 200r	
3) Selection and pre-selection cutting	50 182r	100.0			50 182r	51 885r	100.0			51 885r	
4) Improvement cutting	3 793r	100.0			3 793r	4 057r	100.0			4 057r	
5) Shelterwood cutting	5 015r	100.0			5 015r	5 074r	100.0			5 074r	
6) Commercial thinning	7 727r	98.3	137r	1.7	7 864r	8 758r	99.4	57r	0.6	8 815r	
7) Strip and patch cutting	1 751r	100.0			1 751r	867r	84.2	163r	15.8	1 030r	
8) Harvesting in buffer strips	514r	100.0			514r	1 380r	100.0			1 380r	
9) Other methods :											
a) Cutting for reforestation	9 697r	100.0			9 697r	10 003r	100.0			10 003r	
b) Clear cutting											
- SBBA	11 103r	100.0	3r	0.0	11 106r	8 598r	100.0			8 598r	
- ROADS	10 097r	100.0			10 097r	7 941r	100.0			7 941r	
c) Salvage cutting											
- special plans <sup>4</sup>	2 584r	100.0			2 584r	7 162r	100.0			7 162r	
d) Other methods	7 436r	100.0			7 436r	4 976r	100.0	1r	0.0	4 977r	
<b>Subtotal</b>	<b>40 917r</b>	<b>100.0</b>	<b>3r</b>	<b>0.0</b>	<b>40 920r</b>	<b>38 680r</b>	<b>100.0</b>	<b>1r</b>	<b>0.0</b>	<b>38 681r</b>	
10) Treatments carried out under the resource development program	2 618r	100.0			2 618r	1 544r	100.0			1 544r	
<b>TOTAL</b>	<b>368 149r</b>	<b>100.0</b>	<b>140r</b>	<b>0.0</b>	<b>368 289r</b>	<b>361 462r</b>	<b>99.9</b>	<b>221r</b>	<b>0.1</b>	<b>361 683r</b>	
<b>GRAND TOTAL</b>	<b>614 709r</b>	<b>99.8</b>	<b>1 213r</b>	<b>0.2</b>	<b>615 922r</b>	<b>568 090r</b>	<b>99.7</b>	<b>1 479r</b>	<b>0.3</b>	<b>569 569r</b>	

1. TSFMA : Timber supply and forest management agreement holders.

2. MRNFP : Ministère des Ressources naturelles, de la Faune et des Parcs.

3. SBBA : stacking, branching and bucking area.

4. Areas disturbed by natural disasters, etc.

## 5 Forest management

### Summary of silvicultural treatments carried out (cont'd)

05.14.02

#### A) Public forests (cont'd)

Treatments	Area (2001-2002)					Area (2002-2003)				
	TSFMA <sup>1</sup>		MRNFP <sup>2</sup>		TOTAL	TSFMA		MRNFP		TOTAL
	(ha)	(%)	(ha)	(%)	(ha)	(ha)	(%)	(ha)	(%)	(ha)
Site preparation										
1) Scarifying	40 641r	100.0			40 641r	41 747p	100.0			41 747p
2) Clearing	4 633r	100.0			4 633r	5 646p	100.0			5 646p
3) Brushing										
4) Harrowing										
5) Removal of residual stems			55r	100.0	55r					0p
<b>TOTAL</b>	<b>45 274r</b>	<b>99.9</b>	<b>55r</b>	<b>0.1</b>	<b>45 329r</b>	<b>47 394p</b>	<b>100.0</b>			<b>47 394p</b>
Reforestation and seeding										
1) Planting	(ha)									
	(Seedlings, millions)									
2) Reinforcement	(ha)									
	(Seedlings, millions)									
3) Enrichment	(ha)									
	(Seedlings, millions)									
4) Regeneration of SBBA <sup>3</sup>	Natural (ha)									
	Artificial (ha)									
	(Plants, millions)									
5) Seeding	(ha)									
<b>TOTAL</b>	<b>(ha)</b>	<b>62 508r</b>	<b>100.0</b>		<b>62 508r</b>	<b>66 443p</b>	<b>100.0</b>			<b>66 443p</b>
	<b>(Seedlings, millions)</b>	<b>105r</b>	<b>100.0</b>		<b>105r</b>	<b>112p</b>	<b>100.0</b>			<b>112p</b>
Noncommercial treatments										
1) Release (plantations)	15 784r	94.4	932r	5.6	16 716r	18 980p	100.0			18 980p
2) Release (natural regeneration)	2 217r	98.0	45r	2.0	2 262r	1 986p	100.0			1 986p
3) Pre-commercial thinning	82 152r	96.7	2 769r	3.3	84 921r	97 812p	100.0			97 812p
4) Phytosanitary control										
5) Fertilization										
6) Drainage	3 869r	100.0			3 869r	5 060p	100.0			5 060p
<b>TOTAL</b>	<b>104 022r</b>	<b>96.5</b>	<b>3 746r</b>	<b>3.5</b>	<b>107 768r</b>	<b>123 838p</b>	<b>100.0</b>			<b>123 838p</b>
Commercial treatments										
1) Cutting with protection of regeneration and soils	226 352r	100.0			226 352r	230 000p	100.0			230 000p
- Merchantable trees										
- Tall regeneration										
- With seed reserve	287r	100.0			287r	327p	100.0			327p
2) Block cutting	27 390r	100.0			27 390r	28 000p	100.0			28 000p
3) Selection and pre-selection cutting	31 804r	100.0			31 804r	32 000p	100.0			32 000p
4) Improvement cutting	176r	100.0			176r	19p	100.0			19p
5) Shelterwood cutting	2 224r	99.9	3r	0.1	2 227r	943p	100.0			943p
6) Commercial thinning	4 368r	100.0			4 368r	3 280p	100.0			3 280p
7) Strip and patch cutting	383r	100.0			383r	30p	100.0			30p
8) Harvesting in buffer strips										
9) Other methods :										
a) Cutting for reforestation	5 674r	100.0			5 674r					
b) Clear cutting	- SBBA									
	- ROADS									
c) Salvage cutting	- special plans <sup>4</sup>									
d) Other methods										
<b>Subtotal</b>	<b>11 341r</b>	<b>100.0</b>			<b>11 341r</b>					
10) Treatments carried out under the resource development program										
<b>TOTAL</b>	<b>304 325r</b>	<b>100.0</b>	<b>3r</b>	<b>0.0</b>	<b>304 328r</b>	<b>294 599p</b>	<b>100.0</b>			<b>294 599p</b>
<b>GRAND TOTAL</b>	<b>516 129r</b>	<b>99.3</b>	<b>3 804r</b>	<b>0.7</b>	<b>519 933r</b>	<b>532 274p</b>	<b>100.0</b>			<b>532 274p</b>

1. TSFMA : Timber supply and forest management agreement holders.

2. MRNFP : Ministère des Ressources naturelles, de la Faune et des Parcs.

3. SBBA : stacking, branching and bucking area.

4. Areas disturbed by natural disasters, etc.

Source : Progress report on silvicultural work, January 20, 2003.

## 5 Forest management

### Summary of silvicultural treatments carried out (cont'd)

05.14.03

#### B) Private forests

Treatments	Superficies (1997-1998)	Superficies (1998-1999)	Superficies (1999-2000)	Superficies (2000-2001)	Superficies (2001-2002)
	(ha)	(ha)	(ha)	(ha)	(ha)
Site preparation					
1) Scarifying	1 029	883	950r	907r	1 044p
2) Clearing	3 902	3 508	3 516r	2 693r	2 957p
3) Ploughing and harrowing	264	458	391r	306r	247p
4) Brushing					
- Mechanical	5 092	6 190	4 532r	3 311r	3 495p
- Chemical	295	332	382r	265r	
5) Removal of residual stems	520	538	661r	436r	432p
6) Other treatments	143	237	1 355r	812r	1 043p
<b>TOTAL</b>	<b>11 245</b>	<b>12 146</b>	<b>11 786r</b>	<b>8 731r</b>	<b>9 218p</b>
Reforestation and seeding					
1) Planting	11 562	11 378	12 998r	10 929r	10 645p
2) Reinforcement	3 102	3 068	1 864r	1 671r	1 559p
3) Enrichment	510	65	76r	104r	112p
<b>TOTAL</b>	<b>15 174</b>	<b>14 511</b>	<b>14 938r</b>	<b>12 703r</b>	<b>12 316p</b>
(Seedlings, millions)	34.8	33.2	33r	28r	27.0p
Noncommercial treatments					
1) Release (plantations)					
- Mechanical	7 239	9 081	8 935r	7 576r	9 500p
- Chemical	4 516	3 975	3 492r	3 686r	114p
2) Release (natural regeneration)					
- Mechanical	209	217	577r	737r	977p
- Chemical	22	16	7r	32r	
3) Pre-commercial thinning	6 314	8 002	7 672r	6 683r	7 829p
4) Phytosanitary control	358	562	411r	450r	510p
5) Drainage	2 236	2 239	2 119r	1 881r	1 627p
<b>TOTAL</b>	<b>20 894</b>	<b>24 092</b>	<b>23 213r</b>	<b>21 045r</b>	<b>20 558p</b>
Commercial treatments					
1) Selection cutting	2 042	2 394	2 265r	2 126r	2 442p
2) Shelterwood cutting	366	535	461r	622r	489p
3) Strip and patch cutting	11	27	51r	12r	23p
4) Commercial thinning	3 600	4 242	4 106r	3 926r	4 437p
5) Other methods	1 056	1 938	3 022r	3 112r	2 261p
<b>TOTAL</b>	<b>7 075</b>	<b>9 136</b>	<b>9 905r</b>	<b>9 798r</b>	<b>9 651p</b>
<b>GRAND TOTAL</b>	<b>54 388</b>	<b>59 885</b>	<b>59 842r</b>	<b>52 277r</b>	<b>51 742p</b>



## 6 Use of forests for educational, leisure, research and experimental purposes

### Highlights

#### Teaching and research forests (March 2003)

06.00.01

Teaching and research forests (no.)	16
Area (ha, 000s)	38.7

**Note :** The Duchesnay Forest Station is now under the responsibility of SEPAQ (Société des établissements de plein air du Québec)

#### Experimental forests (March 2003)

Permanent (no.)	211
Temporary (no.)	428
<b>TOTAL (no.)</b>	<b>639</b>
Area (ha, 000s)	26.3

## 7 Logging Highlights

### Economic indicators for the Québec logging industry (NIACS 113)

07.00.01

	1999	2000
Total jobs (no.)	11 120	11 748e
Total salaries and wages (\$, 000s)	255 540	291 300e
Value of shipments and other revenue (\$, 000s)	2 258 181	..
Value added <sup>1</sup> to total activity (\$, 000s)	712 566	798 000e
Capital expenditures and repairs (\$, 000s)	184 900	237 700e

1. Added value includes purchase of services.

## 8 Non-timber use

### Non-timber forest products (NTFPs)

#### Highlights

08.00.01

#### Principal wildlife-related activities in 1999<sup>1</sup>

	Participants (no.)	Expenditures (\$M)	Jobs (no.)	Added value (\$M)
Fishing	1 042 200	1 331.1	9 108	414.8
Hunting	403 600	298.2	3 210	152.0
Outdoor activities	2 325 300	1 227.4	15 127	677.8
Wildlife-related travel	1 198 800	293.4	3 265	157.2

1. In 1999, nearly 60% of Québec's population (3.6 million people) practised one or more activities directly related to nature.

#### Volume and value of large-container maple production, farm sales and home consumption

		2001	2002
Bulk syrup	(l, 000s)	17 813r	20 933p
	(\$, 000s)	103 821r	117 639p
Direct sales by producers	(l, 000s)	3 310r	3 363p
	(\$, 000s)	27 129r	27 146p
Producers' consumption	(l, 000s)	281r	281p
	(\$, 000s)	2 307r	2 271p
<b>TOTAL PRODUCTION</b>	(l, 000s)	<b>21 404r</b>	<b>24 577p</b>
	(\$, 000s)	<b>133 257r</b>	<b>147 056p</b>

Sources: Ministère de l'Agriculture, des Pêcheries et de l'Alimentation.  
Institut de la statistique du Québec.

#### Sale of wild blueberries from blueberry farms and forests in Québec

Year		Fresh fruit sales			Sales to processors			TOTAL SALES
		Farms	Forests	TOTAL	Farms	Forests	TOTAL	
2001	Quantity (t)	340.2	340.2	680.4	20 071.5	4 195.7	24 267.2	24 947.6
	Value (\$, 000s)	1 125.0	750.0	1 875.0	19 912.5	3 515.0	23 427.5	25 302.5
2002	Quantity (t)	340.2	340.2	680.4	15 762.3	1 927.8	17 690.1	18 370.5
	Value (\$, 000s)	1 125.0	750.0	1 875.0	17 375.0	2 040.0	19 415.0	21 290.0

Sources: Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec.  
Institut de la statistique du Québec (janvier 9, 2002).

#### Bulk Christmas tree production<sup>1</sup>

	2000		2001	
	Number	Value (\$)	Number	Value (\$)
Québec	1 418 000	22 589 000	1 497 000	25 737 000

1. Number and wholesale value of Christmas trees for export only.

Source: Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (November 2002).

#### Québec's essential oil industry

Year	Number of plants <sup>1</sup>	Imports <sup>2</sup> (\$, 000s)	Exports <sup>2</sup> (\$, 000s)	Re-Exports <sup>2,3</sup> (\$, 000s)
1999	14	265	23	23
2000	13	160	23	23

1. Directory of essential oil producers in Québec (Essential oils: 3771.010).

2. Statistics Canada – SH330130 – Essential oils.

3. "Re-Export" means export of merchandise produced from imported raw materials.

## 9 Timber use

### Highlights

09.00.01

#### Consumption of Québec's primary wood

##### Processing plants (2002) (m<sup>3</sup>, 000s)

By species	
• FSPL	55 472
• Other softwoods	2 603
• Poplars	5 172
• Hardwoods	8 377
<b>• TOTAL</b>	<b>71 624</b>
By type of wood material	
• Roundwood	44 605
• Chips	18 983
• Sawdust, shavings and wood residues	8 036
<b>• TOTAL</b>	<b>71 624</b>
By source	
• Public forests	31 297
• Private forests	8 198
• Exchange between mills	24 594
• Outside Québec	7 535
<b>• TOTAL</b>	<b>71 624</b>
By product	
• Pulp and paper	24 828
• Saw timber	37 161
• Peelers	346
• Panelboard	5 716
• Other	3 573
<b>• TOTAL</b>	<b>71 624</b>

##### Bark in Québec (2001) (BDMT, 000s)

Estimated production	3 483
Use	2 762
<b>Projects<sup>1</sup></b>	<b>659</b>

1. Steam boiler, pyrolysis, electricity generation and cogeneration projects.

##### Trade with markets outside Québec in 2002 (m<sup>3</sup>, 000s)

Region or country	Receipts	Shipments
<b>Ontario</b>		
• Softwoods	806.2	778.3
• Hardwoods	885.1	24.4
<b>Other provinces</b>		
• Softwoods	688.1	986.5
• Hardwoods	404.0	66.9
<b>United States and other countries</b>		
• Softwoods	3 186.0	912.2
• Hardwoods	1 565.3	105.1
<b>TOTAL</b>		
• Softwoods	<b>4 680.3</b>	<b>2 677.0</b>
• Hardwoods	<b>2 854.4</b>	<b>196.4</b>

#### Principal products of Québec's primary wood processing plants

	2002
Pulp destined for sale (BDMT)	1 909 254
Paper (BDMT)	6 330 298
Paperboard (BDMT)	1 649 006
Insulation board (mt)	86 036
Particle board (m <sup>3</sup> )	3 661 549
Veneer (m <sup>2</sup> )	147 024 768
Shingles (squares)	526 272
Poles (units)	160 616
Mulching material (BDMT)	40 567
Charcoal (mt)	7 053
Saw timber (bd ft, 000s)	8 149 354
<b>Other products (bd ft, 000s)<sup>1</sup></b>	<b>95 107</b>

1. Other products: fuel pellets, electricity, turning and shaping, laths, etc.

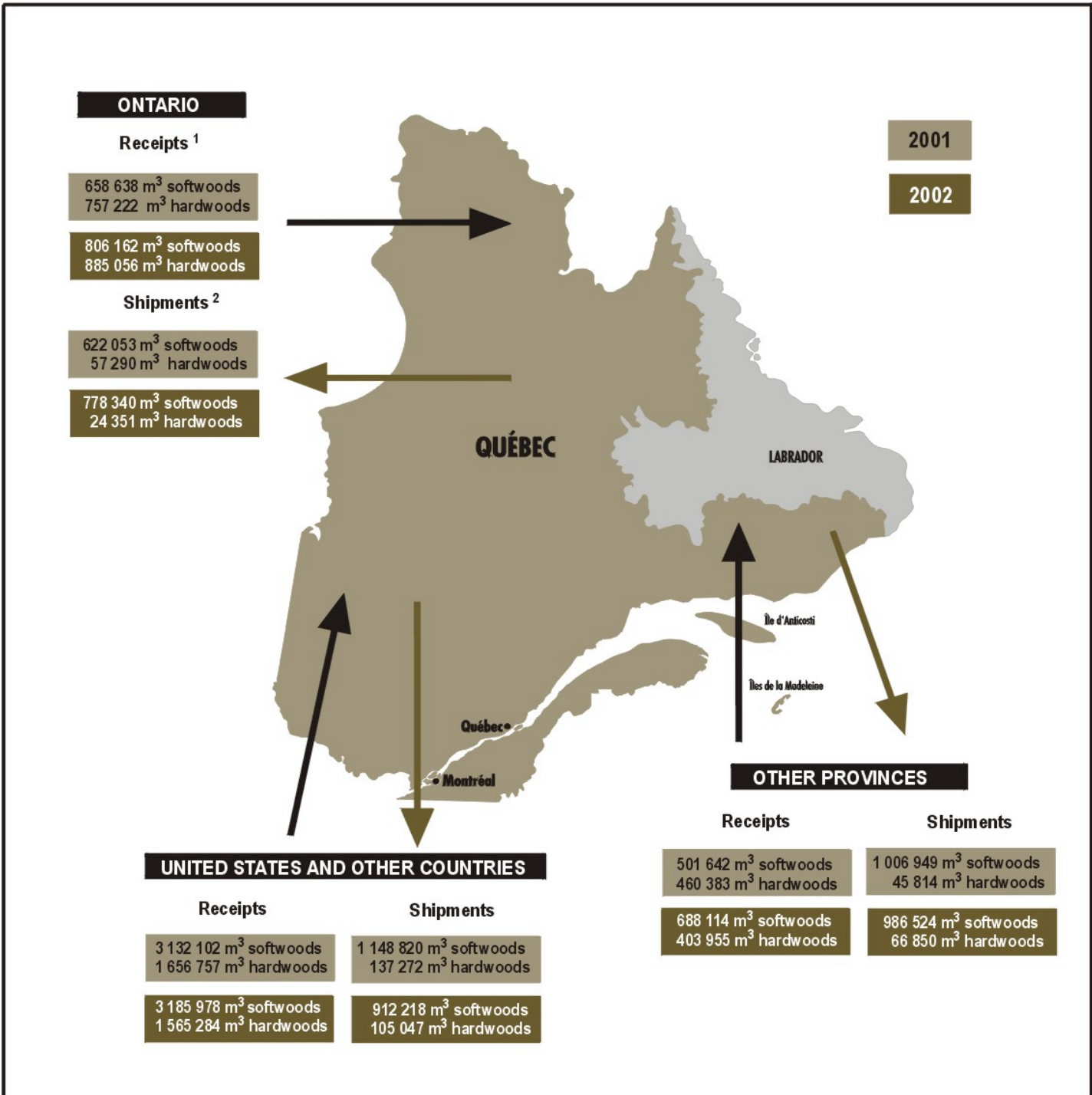
#### FSPL chip stocks at Québec's sawmills

	December 1999	December 2002
FSPL chips (BDMT, 000s)	81.1	18.4

# 9 Timber use

## Trade with markets outside Québec in 2001 and 2002

09.05.01



1. Receipts of roundwood, chips, sawdust and bark from outside Québec.

2. Shipments of chips, sawdust and bark outside Québec; estimated destination breakdown.

Source: Forestry Register, Division de l'évaluation de la demande, DDIPF, Ministère des Ressources naturelles, de la Faune et des Parcs.

## 9 Timber use

### Trade with markets outside Québec in 2001 and 2002

		09.05.01 (c)		
Receipts of roundwood, chips, sawdust and bark from outside Québec (m <sup>3</sup> )				
		Ontario	Other provinces	United States and other countries
2001	softwoods	658 638	501 642	3 132 102
	hardwoods	757 222	460 383	1 656 757
2002	softwoods	806 162	688 114	3 185 978
	hardwoods	885 059	403 955	1 565 284

Shipments <sup>1</sup> of chips, sawdust and bark outside Québec (m <sup>3</sup> )				
		Ontario	Other provinces	United States and other countries
2001	softwoods	622 053	1 006 949	1 148 820
	hardwoods	57 290	45 814	137 272
2002	softwoods	778 340	986 524	912 218
	hardwoods	24 351	66 850	105 047

1. Estimated destination breakdown.

Source: Forestry Register, Division de l'évaluation de la demande, Ministère des Ressources naturelles, de la Faune et des Parcs.

# 10 Wood industries

## Highlights

10.00.01

### Québec's primary wood processing plants (2002)

Lumber	1 200
Pulp and paper <sup>1</sup>	38
Veneer and plywood	12
Particle board	12
Wood turning and shaping	11
Energy production and cogeneration <sup>2</sup>	19
Other	1
<b>TOTAL</b>	<b>1 293</b>

1. The remaining 26 pulp, paper and paperboard mills do not consume round-wood, chips, sawdust or shavings.

2. Mills producing electricity, pellets and fuel chips.

Source: Forestry Register, Ministère des Ressources naturelles, de la Faune et des Parcs.

### Establishments by wood processing groups and sub-groups 1999

Wood products	702
Wooden furniture and related products	436
Paper	211
<b>TOTAL</b>	<b>1 349</b>

Source: Statistics Canada: 31-203.

### Economic indicators for Québec's wood products industry <sup>1</sup> (1999)

Jobs (no.)	37 492
Salaries and wages (\$, 000s)	1 167 082
Value of shipments and other revenue (\$, 000s)	8 413 296
Value added <sup>2</sup> to total activity (\$, 000s)	3 559 714
Capital expenditures and repairs (\$, 000s)	625 300

1. According to NIACS 321 (wood products manufacturing industry), Statistics Canada

2. Including purchase of services.

### Québec's lumber production (m<sup>3</sup>, 000s)

1999	• Softwoods	20 649
	• Hardwoods	820
2000	• Softwoods	20 368p
	• Hardwoods	809p
2001	• Softwoods	18 291p
	• Hardwoods	727p
2002	• Softwoods	17667p
	• Hardwoods	510p

Source: Statistics Canada: 35-003.

### Source of wood used by Québec's sawmills (2002)

(m<sup>3</sup>, 000s)

Public forests	27 152.9p
Private forests	5 286.4p
Other mills	64.5p
Outside Québec	4 657.7p
<b>TOTAL</b>	<b>37 161.5p</b>

### Joint production of Québec's sawmills (2002)

(BDMT, 000s)

Chips	7 546p
Sawdust and shavings	2 128p
Bark	2 832p
<b>TOTAL</b>	<b>12 506p</b>

### Québec's lumber shipments (2002)

(m<sup>3</sup>, 000s)

Softwoods	15 894.3p
Hardwoods	1 756.9p
<b>TOTAL</b>	<b>17 651.2p</b>

### Destination of Québec's lumber shipments (2002)

(%)

	Résineux	Feuillus
Canada	54.4p	58.6p
United States	45.1p	27.1p
Overseas	0.5p	14.3p
<b>TOTAL</b>	<b>100.0</b>	<b>100.0</b>

## 10 Wood industries

### Highlights (cont'd)

10.00.01

#### Economic indicators for Québec's sawmills and wood preservation industries (NIACS 32111) (1999)

Jobs (no.)	19 293
Salaries and wages (\$, 000s)	654 675
Value of shipments and other revenue (\$, 000s)	4 665 995
Value added <sup>1</sup> to total activity (\$, 000s)	1 766 347
Capital expenditures and repairs (\$, 000s)	266 500

1. Including purchase of services.

#### Economic indicators of Québec's sawmills, excluding shingle mills (NIACS 321111) (1999)

Jobs (no.)	18 535
Salaries and wages (\$, 000s)	632 939
Value of shipments and other revenue (\$, 000s)	4 491 359
Value added <sup>1</sup> to total activity (\$, 000s)	1 720 405
Capital expenditures and repairs (\$, 000s)	..

1. Including purchase of services.

#### Volume and value of Québec's lumber exports by destination (2002)

	Volume (m <sup>3</sup> , 000s)	Value (\$, millions)
United States	8 539.2	1 759.5
Europe	227.1	142.6
Middle East and Africa	45.2	18.6
Asia and Oceania	52.7	39.2
Central and South America	7.2	2.4
<b>TOTAL</b>	<b>8 871.4</b>	<b>1 962.3</b>

#### Economic indicators for Québec's veneer, plywood and reconstituted wood industry (NIACS 3212) <sup>1</sup> (1999)

Jobs (no.)	5 645
Salaries and wages (\$, 000s)	203 039
Value of shipments and other revenue (\$, 000s)	1 983 667
Value added <sup>2</sup> to total activity (\$, 000s)	1 105 846
Capital and repair expenditures (\$, 000s)	272 600

1. According to NIACS 3212, which is a subdivision of Statistics Canada group 321 (wood products manufacturing industry).

2. Including purchase of services.

#### Economic indicators for Québec's particle board industry

	2001	2002
Jobs (no.)	2 386	2 506
Mills (no.)	14	14
Production capacity (m <sup>3</sup> , 000s/year)	5 272	5 272
Capital expenditures and repairs (\$, 000s)	..	..

#### Economic indicators for Québec's waferboard industry (NIACS 321217) <sup>1</sup> (1999)

Jobs (no.)	799
Salaries and wages (\$, 000s)	41 444
Value of shipments and other revenue (\$, 000s)	495 626
Value added <sup>2</sup> to total activity (\$, 000s)	318 838

1. NIACS 321217 corresponds to the oriented strand board (OSB) industry.

2. Including purchase of services.

#### Québec's balance of trade <sup>1</sup> in the wood products sector <sup>2</sup> (\$, millions)

Wood, charcoal and wood products	Exports	Imports	Balance of trade
2000	4 309.2	782.4	3 526.8
2001	4 137.3	791.0	3 346.3
2002	4 078.5	925.0	3 153.5

1. Based on Customs figures.

2. Product descriptors consistent with the Harmonized Commodity Description and Coding System (World Customs Organization).



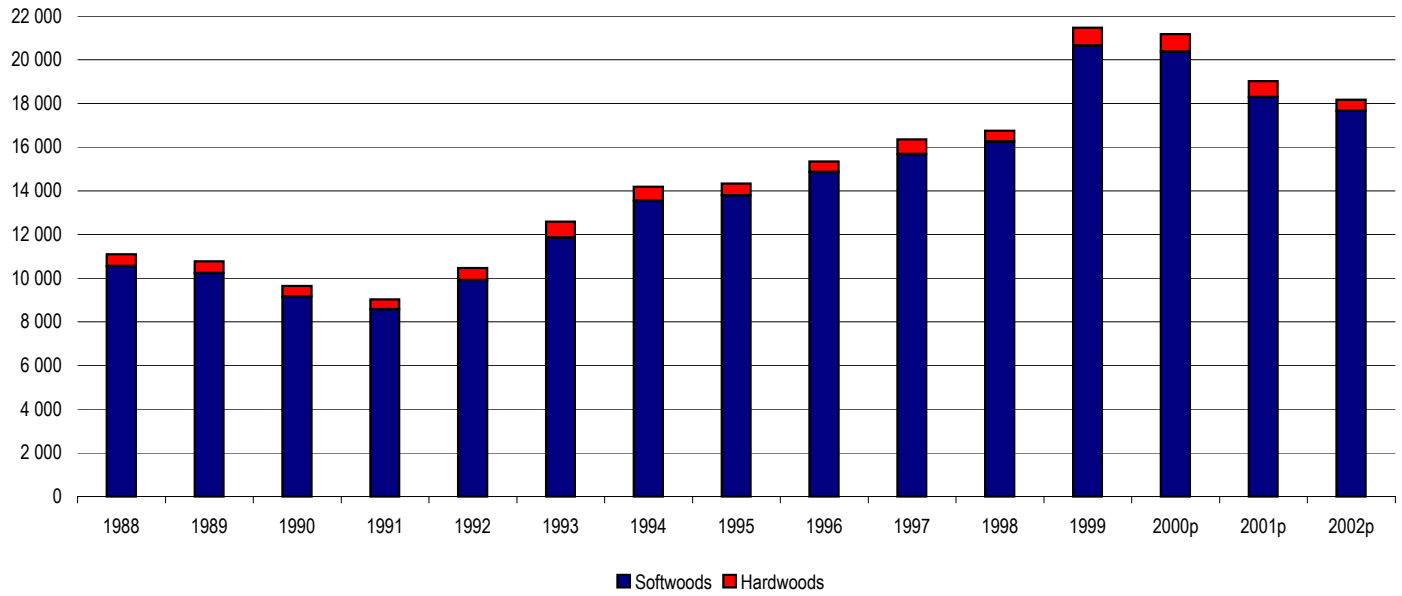
# 10 Wood industries

## Overview

### Timber production in Québec (softwoods and hardwoods)

(m<sup>3</sup>, 000s)

10.01.07



Sources: Statistics Canada: 35-002 (1987 to 1995) and 35-003.

# 10 Wood industries

## Overview

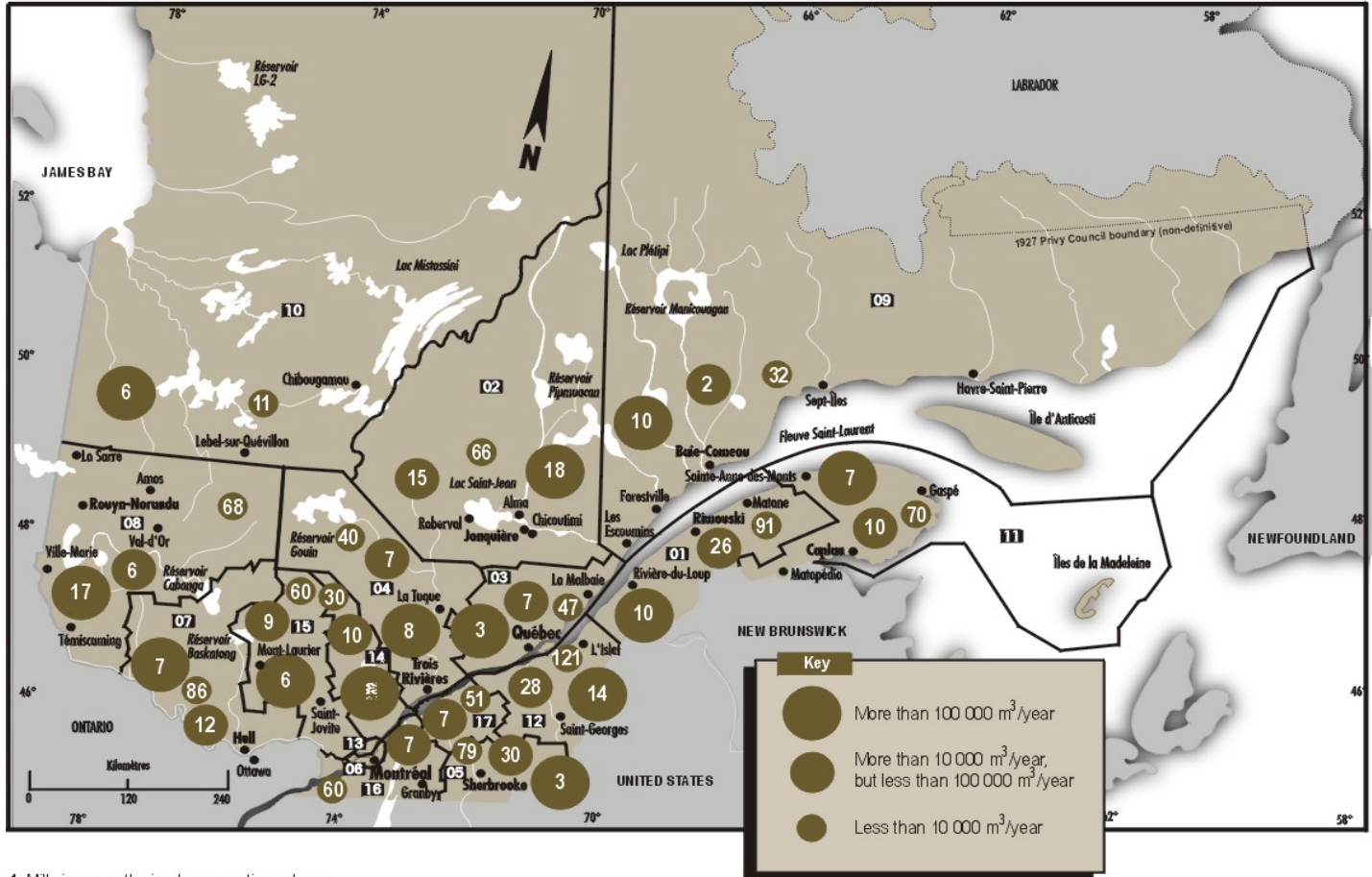
### Timber production in Québec (softwoods and hardwoods) (m<sup>3</sup>, 000s)

10.01.07 (g)

Years	Total	Softwoods	Hardwoods
1988	11 088	10 549	539
1989	10 770	10 231	538
1990	9 637	9 153	484
1991	9 026	8 573	453
1992	10 459	9 904	554
1993	12 595	11 853	742
1994	14 189	13 548	642
1995	14 341	13 786	555
1996	15 353	14 862	490
1997	16 363	15 679	683
1998	16 759	16 248	511
1999	21 469	20 649	820
2000	21 177p	20 368p	809p
2001	19 018p	18 291p	727p
2002	18 177p	17 667p	510p

Sources: Statistics Canada: 35-002 (1987 to 1995) and 35-003.

10 Wood industries  
 The sawmill industry  
 Sawmills by size (2002) <sup>1</sup>



1. Mill size on authorized consumption volumes.

Source: Ministère des Ressources naturelles, de la Faune et des Parcs, Direction du développement de l'industrie des produits forestiers (compiled in-house).

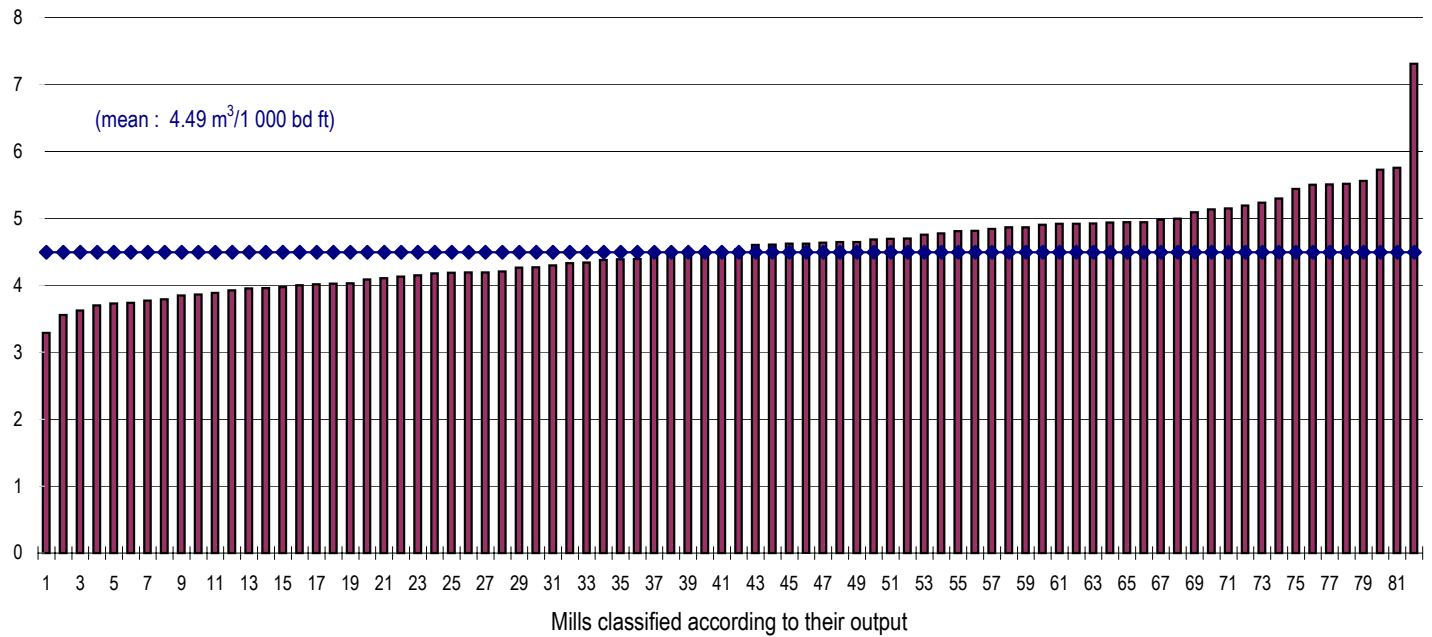
## 10 Wood industries

### The sawmill industry (cont'd)

#### Sawmill output (fir, spruce, jack pine, larch) (TSFMA<sup>1</sup> holders) (2001)

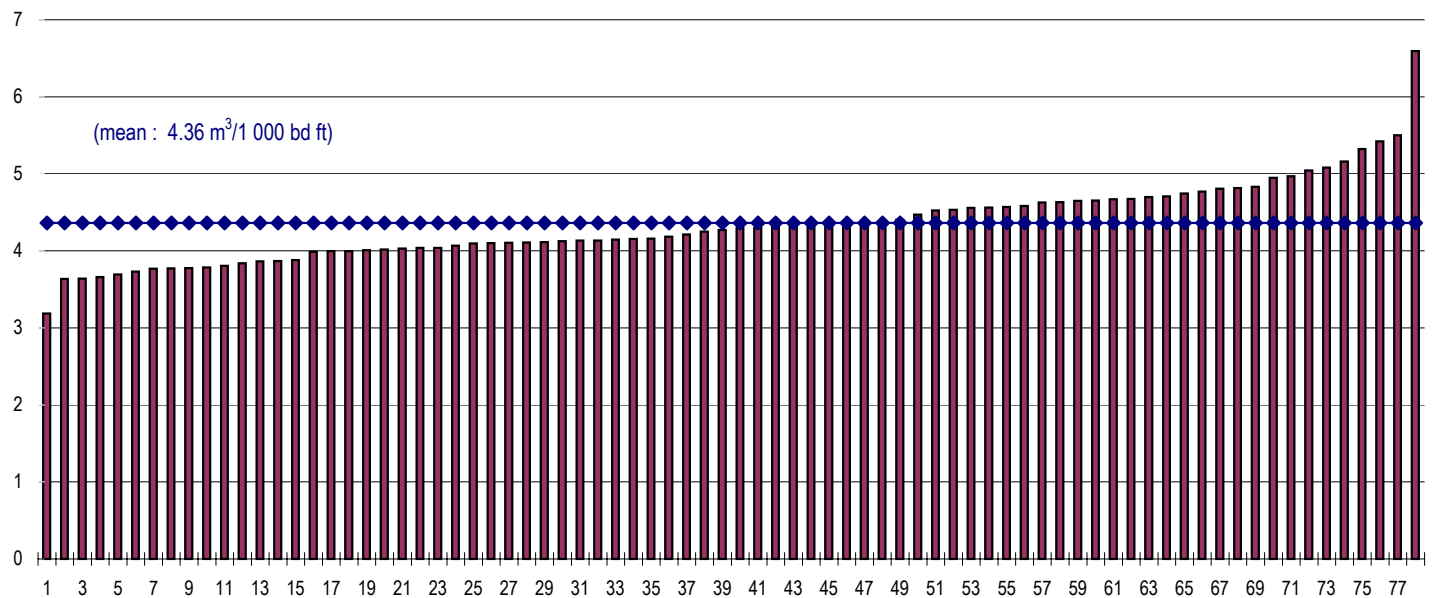
(m<sup>3</sup>/1 000 bd ft)

10.02.06



#### Sawmill output (fir, spruce, jack pine, larch) (TSFMA<sup>1</sup> holders) (2002)

(m<sup>3</sup>/1 000 bd ft)



1. TSFMA : timber supply and forest management agreement.

# 11 The pulp and paper industry

## Highlights

11.00.01

### Québec's pulp, paper and paperboard mills (june 2003)

Mills consuming roundwood, chips, sawdust and shavings (primary processing mills)	38
Mills consuming marketed pulp and recycled fibres	26
<b>TOTAL</b>	<b>64</b>

### Québec's pulp, paper and paperboard mills and production capacity (june 2002) <sup>1</sup>

	Mills (no.)	Production capacity (BDMT, 000s/year)
Pulp destined for sale	9	2 218.6
Newsprint (mechanical, supercalandered, etc.)	20	6 025.2
Cardboard packaging and other cardboard	11	2 164.4
Low-density board	2	101.6
Fine and specialty paper	11	768.8
Construction paperboard	2	101.2
Kraft papers (packing, carbon)	2	100.1
Sanitary tissue	7	3 900.4
<b>TOTAL</b>	<b>64</b>	<b>15 380.3</b>

1. Classification by main product.

### Main timber supply sources for Québec's pulp and paper industry (2002) (m<sup>3</sup>, 000s)

Roundwood and chips (public forests)	1 720.1p
Roundwood and chips (private forests)	2 073.5p
Roundwood, chips, sawdust and shavings from Québec's mills	18 788.0p
Roundwood, chips, sawdust and shavings from outside Québec	2 245.9p
<b>TOTAL</b>	<b>24 827.5p</b>

### Raw materials used in Québec's pulp and paper mills (2002) (BDMT, 000s)

Roundwood	1 823.0p
Joint sawmill production	8 552.0p
Recycled fibres and commercial pulp	2 722.0p
<b>TOTAL</b>	<b>13 097.0p</b>

### Recycled fibre from paper and board recycled by Québec's pulp and paper industry (2002) (BDMT, 000s)

Recovered paper for de-inking	1 111.5p
Recovered paperboard for de-inking	301.8p
Recovered paper, without de-inking	526.2p
<b>TOTAL</b>	<b>1 939.5p</b>

### Types of pulp produced by Québec's pulp and paper industry (mt, 000s)

	2 000	2001	2002
Thermomechanical pulp	3 252r	3 463	3 529
Chemi-thermomechanical pulp	1 264r	746	846
Other mechanical pulp	653r	469	459
<b>Subtotal</b>	<b>5 169r</b>	<b>4 678</b>	<b>4 834</b>
Sulphate pulp (Kraft)	2 261r	2 190	2 279
Other chemical pulp	379r	312	367
<b>Subtotal</b>	<b>2 640r</b>	<b>2 502</b>	<b>2 646</b>
<b>TOTAL</b>	<b>7 809r</b>	<b>7 180</b>	<b>7 480</b>

### Québec's paper and paperboard production (mt, 000s)

	2001	2002
Newsprint	3 704r	3 859p
Printing and writing papers	2 398r	2 455p
Sanitary tissue	267r	291p
Other papers	275r	230p
Paperboard	1 677r	1 753p
<b>TOTAL</b>	<b>8 322r</b>	<b>8 588p</b>

### Québec's share of Canadian paper and paperboard production (mt, 000s)

	2001		2002	
	Newsprint and paperboard	Other paper and paperboard	Newsprint and paperboard	Other paper and paperboard
Québec	3 558	4 698	3 726	4 841
Canada	8 373	11 275	8 465	11 654
<b>Québec / Canada</b>	<b>42.5</b>	<b>41.7</b>	<b>44.0</b>	<b>41.5</b>

### Economic indicators for Québec's paper products industry <sup>1</sup> (1999)

Jobs (no.)	34 455
Salaries and wages (\$, 000s)	1 765 225
Value of shipments and other revenue (\$, 000s)	11 337 796
Value added <sup>2</sup> to total activity (\$, 000s)	5 041 509
Capital and repair expenditures (\$, 000s)	1 333 900

1. According to NIACS 3221, which is a subdivision of Statistics Canada group 322 (paper products industry).

2. Including purchase of services.

# 11 Pulp and paper industry

## Highlights (cont'd)

11.00.01

### Economic indicators for Québec's pulp, paper and board industry <sup>1</sup> (1999)

Jobs (no.)	20 683
Salaries and wages (\$, 000s)	1 210 773
Value of shipments and other revenue (\$, 000s)	7 895 098
Value added <sup>2</sup> to total activity (\$, 000s)	3 655 362
Capital expenditures and repairs (\$, 000s)	1 333 400

1. According to NIACS 3221, which is a subdivision of Statistics Canada group 322 (paper products industry).

2. Including purchase of services.

### Destination of Québec's pulp and paper shipments (2001) (mt, 000s)

	Canada	United States	Other countries	TOTAL
Newsprint	499	2 334	746	3 579
Pulp destined for sale	200	548	573	1 321
Other paper and paperboard	1 623	2 893	133	4 649
<b>TOTAL</b>	<b>2 322</b>	<b>5 775</b>	<b>1 452</b>	<b>9 549</b>

### Destination of Québec's pulp and paper shipments (2002) (mt, 000s)

	Canada	United States	Other countries	TOTAL
Newsprint	500	2 517	753	3 770
Pulp destined for sale	232	555	643	1 430
Other paper and paperboard	1 726	2 892	150	4 768
<b>TOTAL</b>	<b>2 458</b>	<b>5 964</b>	<b>1 546</b>	<b>9 968</b>

### Relative share of Québec's pulp and paper exports (\$, millions)

	2000	2001	2002
Pulp and paper exports	7 927	8 033	7 525
Total exports	74 120	70 819	68 274
<b>Relative share (%)</b>	<b>10.7</b>	<b>11.3</b>	<b>11.0</b>

### Share of Québec's newsprint exports on US market (mt, 000s)

	2000	2001	2002
Québec's shipments to the US	2 979	2 684	2 817
US newsprint consumption	11 886	10 496	10 227
<b>Relative share (%)</b>	<b>25.1</b>	<b>25.6</b>	<b>27.5p</b>

### Québec's balance of trade <sup>1</sup> in the pulp and paper sector (2002) <sup>2</sup> (\$, millions)

	Exports	Imports	Balance of trade
Woodpulp or pulp derived from other cellulosic fibrous materials, paper or paperboard for recycling (waste and residues)	872.0	200.0	672.0
Paper or paperboard; cellulose products, in paper or paperboard	6653.4	1 016.0	5 637.4
<b>TOTAL</b>	<b>7 525.4</b>	<b>1 216.0</b>	<b>6 309.4</b>

1. Based on customs figures.

2. Product descriptors consistent with the Harmonized Commodity Description and Coding System (World Customs Organization).

### Environmental protection

	1981	2001	2001/1981
Total suspended solids in mill effluent (kg/tonne of pulp produced)	26.0	2.5e	-90%
Biochemical oxygen demand in mill effluent (kg/tonne of pulp produced)	59.1	1.6e	-97%
Water consumption by mills (m <sup>3</sup> /tonne of pulp produced)	121.0	55.0e	-55%

### Investments by papermills to clean up atmospheric emissions (1999)

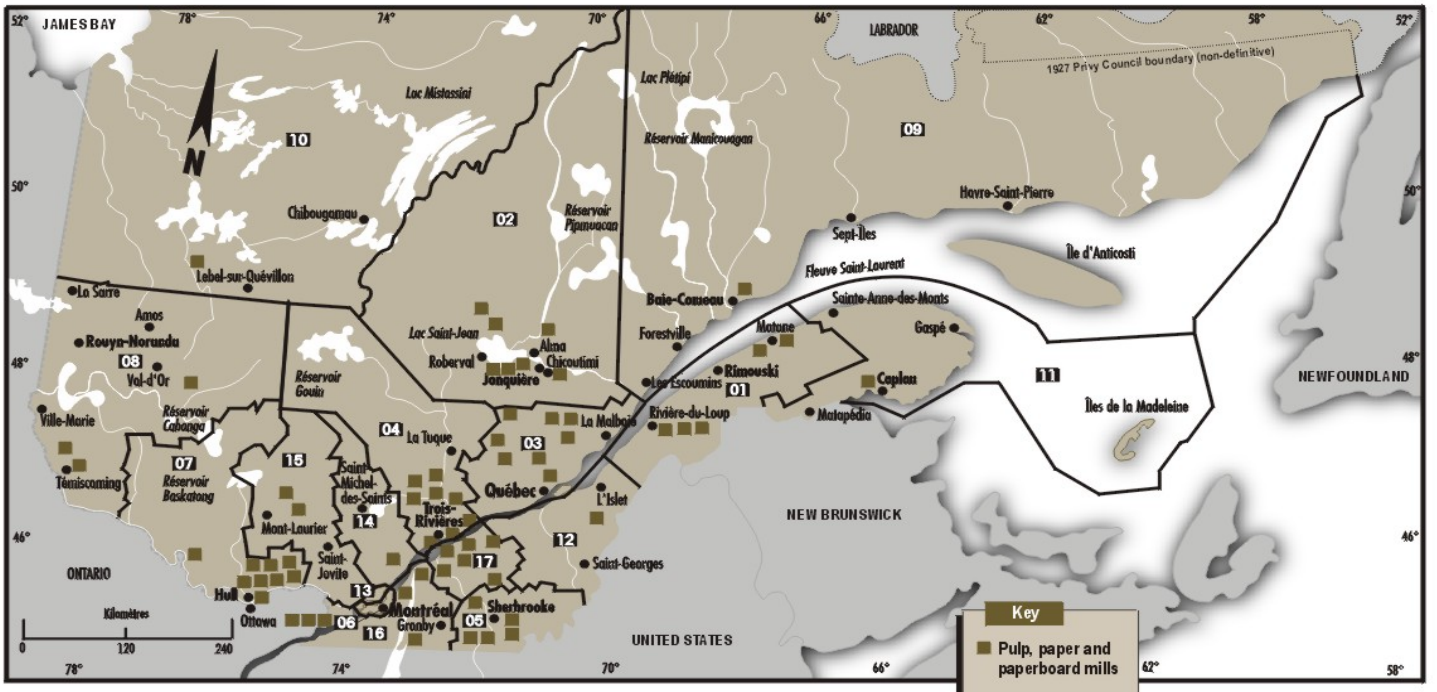
Québec investments (\$, 000s)	15 467
Canadian investments (\$, 000s)	47 058
<b>Québec/Canada (%)</b>	<b>33</b>

# 11 The pulp and paper industry

## Production capacity

### Pulp, paper and paperboard mills (june 2003)

11.01.01

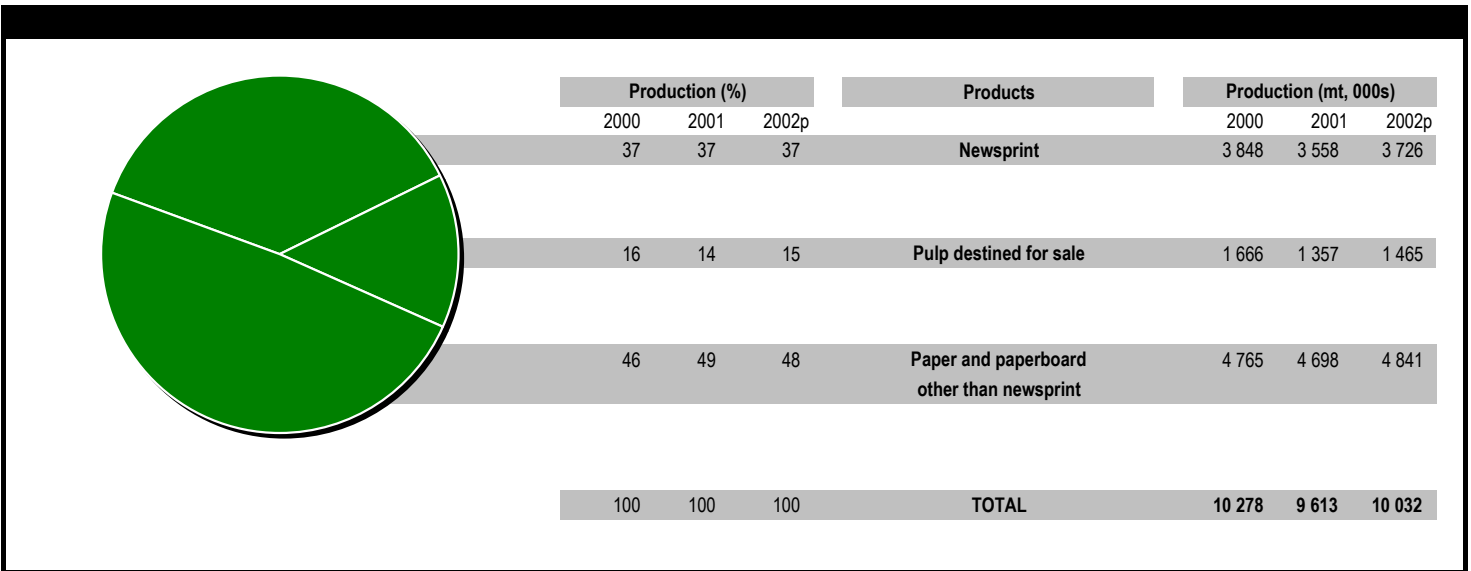


# 11 The pulp and paper industry

## Production

### Breakdown of production by product

11.02.05



Source: Québec Forest Industry Council (QFIC).



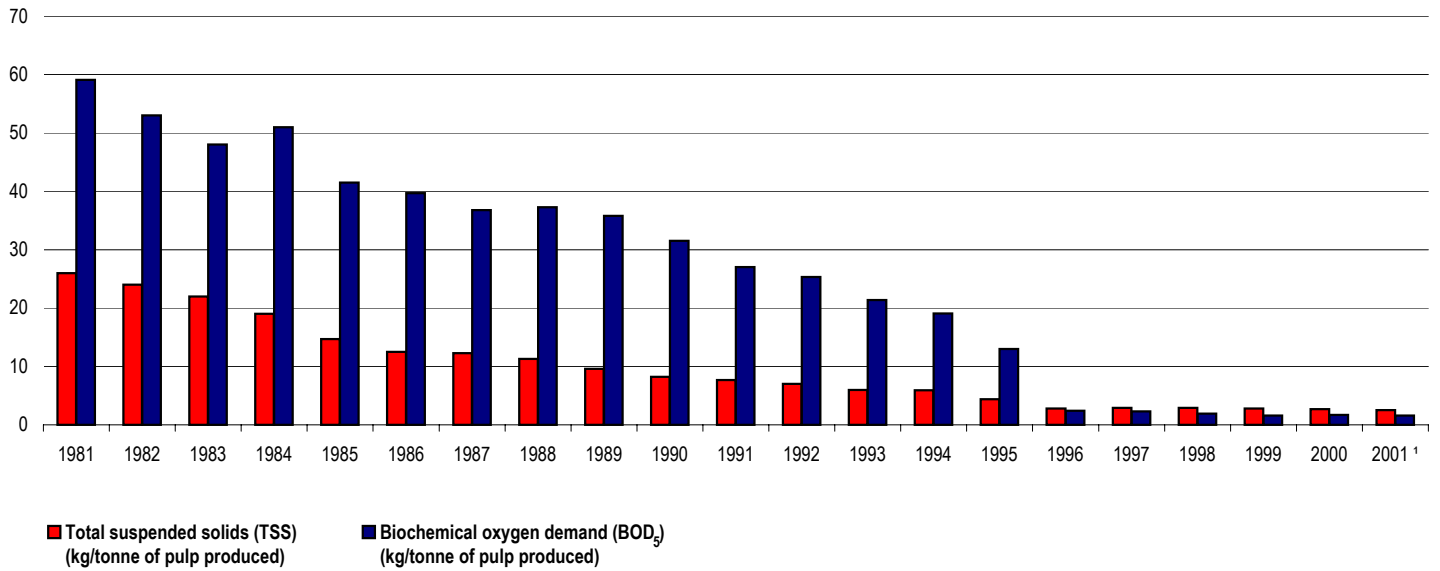
# 11 The pulp and paper industry

## Environment

### Trends in the quality of effluents from Québec's pulp and paper mills

(kg/tonne of pulp produced)

11.06.02



1. As forecast by the Ministère de l'Environnement du Québec (2002).

# 11 The pulp and paper industry

## Environment (cont'd)

### Trends in the quality of effluents from Québec pulp and paper mills

11.06.02 (g)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001 <sup>1</sup>
Total suspended solids (TSS) (kg/tonne of pulp produced)	26.0	24.0	22.0	19.0	14.7	12.5	12.3	11.3	9.6	8.2	7.7	7.0	6.0	5.9	4.4	2.8	2.9	2.9	2.8	2.7	2.5
Biochemical oxygen demand (BOD <sub>5</sub> ) (kg/tonne of pulp produced)	59.1	53.0	48.0	51.0	41.5	39.7	36.8	37.3	35.8	31.5	27.0	25.3	21.4	19.1	13.0	2.4	2.3	1.9	1.6	1.7	1.6

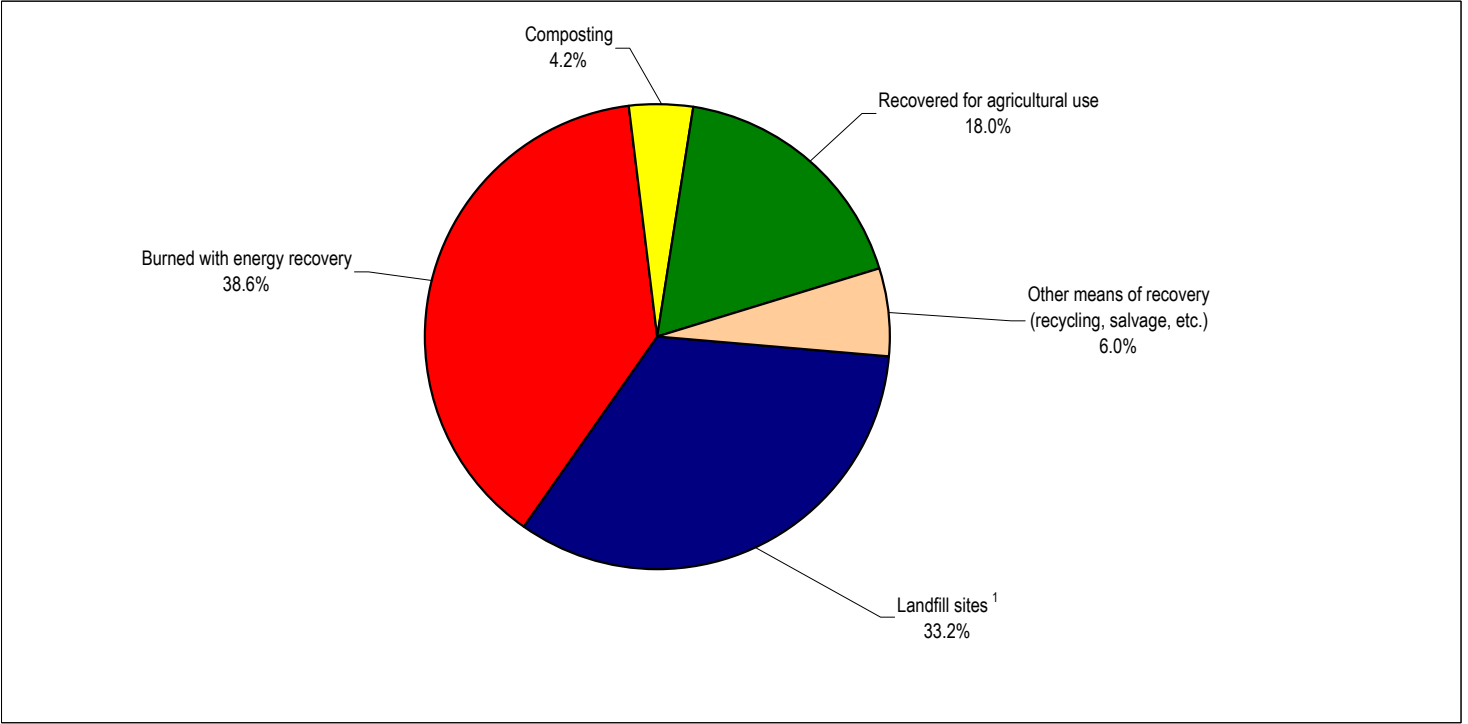
1. As forecast by the inistère de l'Environnement du Québec (2002).

# 11 The pulp and paper industry

## Environment (cont'd)

11.06.05

### Where did Québec's paper mill waste go in 1999 ?



1. Including sites set aside for production waste or solid waste landfill sites.  
Source: Ministère de l'Environnement (2002).

# 11 The pulp and paper industry

## Environment (cont'd)

### Where did Québec's paper mill waste go in 1999 ?

11.06.05 (g)

Landfill sites <sup>1</sup>	33.2%
Burned with energy recovery	38.6%
Composting	4.2%
Recovered for agricultural use	18.0%
Other means of recovery (recycling, salvage, etc.)	6.0%

1. Including sites set aside for production waste or solid waste landfill sites

Source: Ministère de l'Environnement (2002).

## 12 The forest sector in Québec's economy

### Highlights

12.00.01

#### Economic indicators for Québec's forest products industry (1999)

	Total jobs (no.)	Total salaries and wages (\$, 000s)	Value of shipments and other revenue (\$, 000s)	Value added <sup>1</sup> to total activity (\$, 000s)
Logging (NIACS 113)	11 120	255 540	2 258 181	712 556
Wood products industry (NIACS 321)	43 827	1 274 378	8 416 296	3 559 714
Paper products industry (NIACS 322)	34 455	1 765 225	11 337 796	5 041 509
<b>TOTAL (forest sector)</b>	<b>89 402</b>	<b>3 295 143</b>	<b>22 012 273</b>	<b>9 313 779</b>
Overall manufacturing activity in Québec	530 403	19 350 051	131 479 524	57 054 830

1. Including purchase of services.

#### Economic importance of Québec's forest product exports (\$, millions)

	2001	2002
Raw wood, sawn wood and lumber	4 137.3	4 078.5
Pulp, paper and paperboard	8 032.7	7 525.4
<b>TOTAL (forest sector)</b>	<b>12 170.0</b>	<b>11 603.9</b>

#### Gross domestic product (GDP)<sup>1</sup> at factor cost by economic activity (2002)<sup>2</sup>

	(\$, millions)	(% of GDP)
Logging and forestry services	972.7	0.5
Wood industry	3 138.7	1.5
Paper industry	4 309.7	2.0
<b>TOTAL for forest products</b>	<b>8 421.1</b>	<b>4.0</b>
Economy as a whole	210 621.6	100.0

1. GDP by sector of activity measures the added value of each industrial sector, i.e. production value less intermediate consumption value.

2. In constant dollars

#### Value of Québec's shipments, principal forest products (\$, millions)

	2001	2002
Sawmills	3 568	3 827
Other millwork	378	454
Oriented strand board (OSB)	341	315
Particle board	661	683
Wooden doors and windows	672	976
Wooden boxes and pallets	114	114
Wooden structural products	203	250
Wooden kitchen cabinets	667	731
Pulp	1 039	1 083
Newsprint	4 988	4 409
Paperboard	1 019	1 207
Cardboard containers	1 394	1 621

#### Construction starts in Canada and the United States (no. of units)

	2001	2002
Canada	164 183	202 642
United States	1 602 750	1 704 900

#### Québec's balance of trade<sup>1</sup> in the forest products sector and for all products 2002<sup>2</sup> (\$, millions)

	Imports	Exports	Balance of trade
Wood, charcoal and wood products	925.0	4 078.5	3 153.5
Pulp, paper and paperboard	1 216.0	7 525.4	6 309.4
<b>TOTAL (forest products sector)</b>	<b>2 141.0</b>	<b>11 603.9</b>	<b>9 462.9</b>
All products	63 433.5	86 273.6	4 840.1

1. Based on customs figures, according to the Standard Classifications of Goods.

2. Product descriptors consistent with the Harmonized Commodity Description and Coding System (World Customs Organization).

#### Financial indicators

	2001	2002
Average exchange rate (C\$/US\$)	1.548	1.570
Average exchange rate (C\$/E)	2.230	2.358
Average exchange rate (C\$/DM)	1.387	1.483
Average exchange rate (C\$/¥)	0.013	0.013
Average discount rate		
• Canada (%)	4.31	2.71
• United States (%)	3.23	1.17
Average prime rate		
• Canada (%)	5.81	4.21
• United States (%)	6.73	4.67
Stock market index (paper and forest product market prices, Toronto Exchange)	4 950	5 004

## 12 The forest sector in Québec's economy

### Highlights (cont'd)

12.00.01

#### Average price of principal forest products

	2001	2002
Softwood lumber, Toronto green (composite price) (C\$/1 000 bd ft)	360.1	370.5
Softwood lumber, Columbus dry (composite price) (C\$/1 000 bd ft)	477.1	492.6
Hardwood lumber, Montreal exchange (weighted price) (C\$/1 000 bd ft)	659.2	658.0
Plywood (12.5 mm) (C\$/1 000 sq. ft.)	461.0	520.0
Waferboard 7/16" (C\$/1 000 sq. ft.)	246.0	259.0
Bleached softwood pulp (US\$/mt)	557.9	490.4
Bleached hardwood pulp (US\$/mt)	501.3	454.2
Newsprint (US\$/mt)	585.0	465.4

#### Estimated revenue from wood chips in Québec (C\$/1 000 bd ft) <sup>1</sup>

	2001	2002
	124.0	117.0

1. Estimated revenue for every 1 000 bd ft produced.

#### Profits made by Canada's forest products industry

	2001	2002
Profits (\$, millions)	490	180
Profits/sales (%)	5.3	1

#### Share of paper mill-integrated sawmills in authorized roundwood consumption

1987	28.9 % of total consumption
2002	52.9 % of total consumption

#### Budget allocated to the secteur des forêts and the secteur des services régionaux, MRNFP<sup>1</sup>, 2001-2002 <sup>2</sup> (\$, 000s)

Research and development	17 387.7
Forestry policies and programs	75 368.0
Forest management planning and monitoring	117 224.0
Seedling production	38 934.2
Internal management and support	1 146.9
Forestry loans	698.0
<b>TOTAL</b>	<b>250 758.8</b>

1. Ministère des Ressources naturelles, de la Faune et des Parcs.

2. Including Forestry Fund (financed jointly by the MRNFP and the industry) : forestry research, forest surveys, seedling production, planning and control.

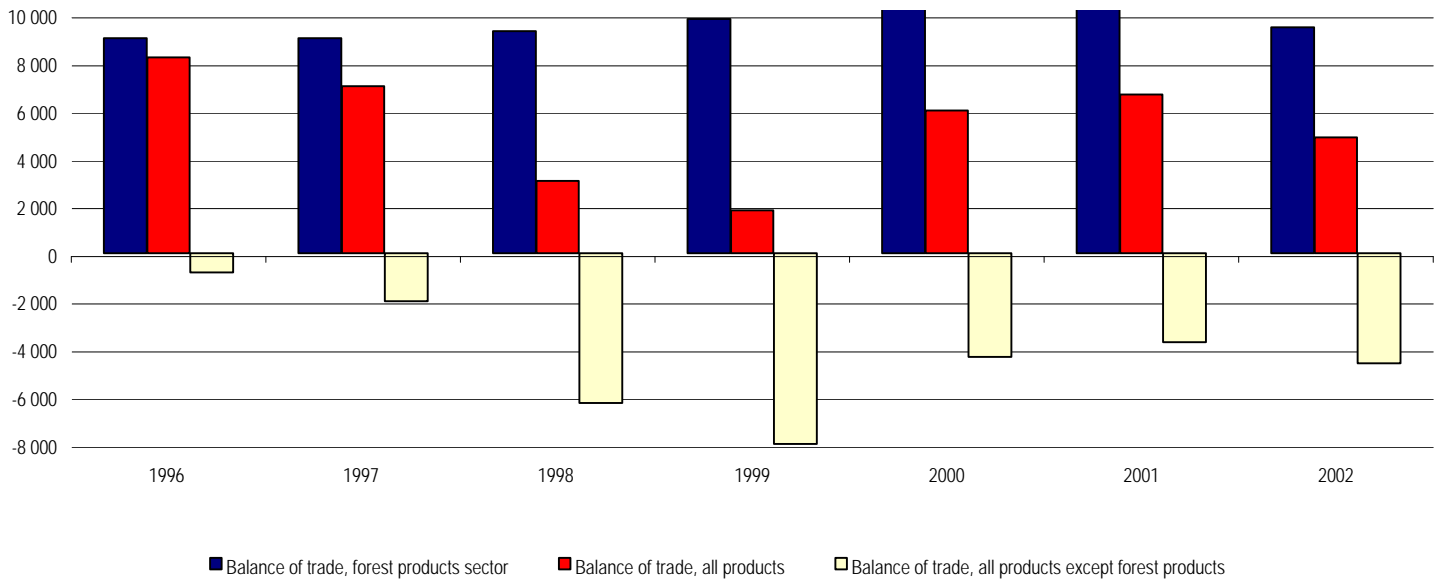
## 12 The forest sector in Québec's economy

### Economic and financial indicators

#### Economic indicators for the forest sector

Québec's balance of trade <sup>1</sup> in the forest products sector and for all products <sup>2</sup>  
(\$, millions)

12.01.13



1. Based on customs figures.

2. Descriptors consistent with the Harmonized Commodity Description and Coding System (World Customs Organization).

Source: Institut de la statistique du Québec, according to the Standard Classification of Goods.

## 12 The forest sector in Québec's economy

### Economic and financial indicators

### Economic indicators for the forest sector

#### Québec's balance of trade <sup>1</sup> in the forest products sector and for all products <sup>2</sup>

12.01.13(g)

	1996	1997	1998	1999	2000	2001	2002
Wood, charcoal and wood products	2 740.5	2 867.3	3 261.3	3 850.2	3 526.5	3 346.3	3 153.5
Woodpulp or pulp derived from other cellulosic material; paper or paperboard for recycling (waste and residues)	898.7	826.9	724.6	760.1	893.2	663.7	672.0
Paper and paperboard: cellulose products, in paper or paperboard	5 368.7	5 309.4	5 317.0	5 196.5	5 904.3	6 371.6	5 637.4
<b>Balance of trade, forest products sector</b>	<b>9 008.0</b>	<b>9 003.6</b>	<b>9 302.9</b>	<b>9 806.8</b>	<b>10 324.0</b>	<b>10 381.6</b>	<b>9 462.9</b>
<b>Balance of trade, all products</b>	<b>8 209.0</b>	<b>6 998.3</b>	<b>3 029.2</b>	<b>1 801.8</b>	<b>5 977.5</b>	<b>6 647.6</b>	<b>4 840.1</b>
<b>Balance of trade, all products except forest products</b>	<b>(799.0)</b>	<b>(2 005.3)</b>	<b>(6 273.7)</b>	<b>(8 005.0)</b>	<b>(4 346.5)</b>	<b>(3 734.0)</b>	<b>(4 622.8)</b>

1. Based on customs figures.

2. Descriptors consistent with the Harmonized Commodity Description and Coding System (World Customs Organization).

Source: Institut de la statistique du Québec, according to the Standard Classification of Goods.



# 12 The forest sector in Québec's economy

## Economic and financial indicators (cont'd)

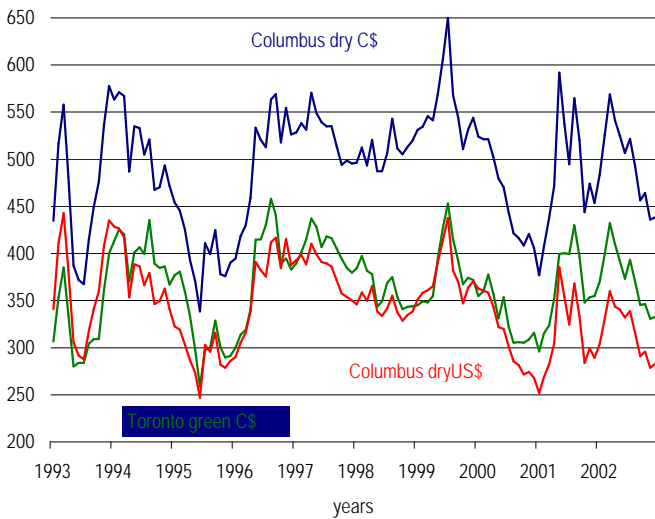
### Economic indicators for the forest sector (cont'd)

#### Price trends

##### 1) Softwood lumber (composit price)

(\$/1000 bd ft)

12.01.37

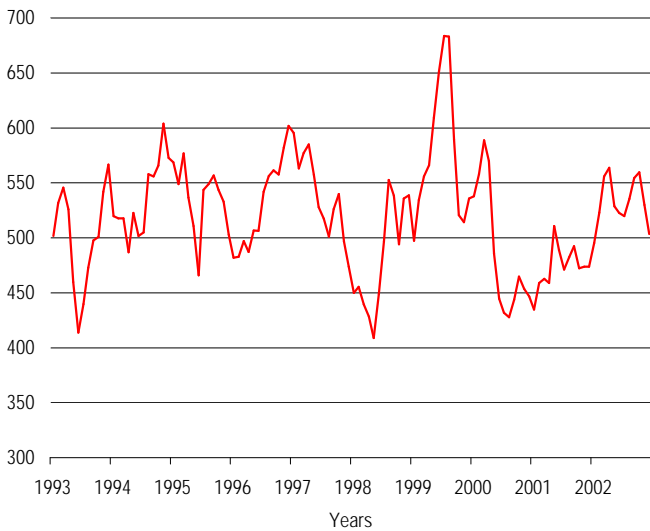


Source: Pribec.

##### 3) Plywood (12.5 mm)

(C\$/1000 sq.ft.)

12.01.39

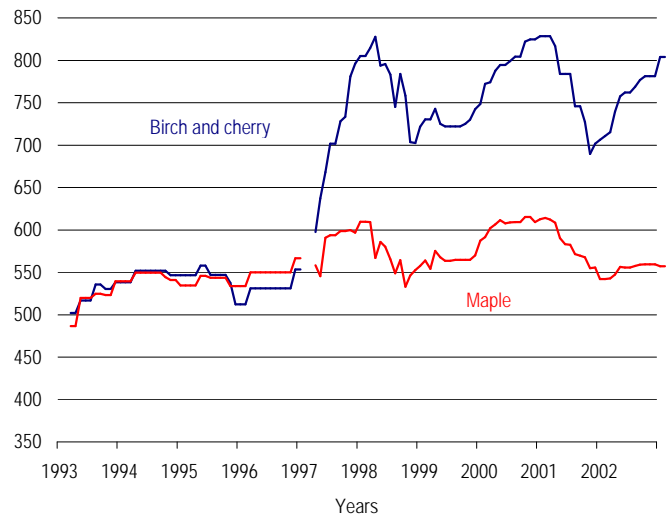


Source: Madison's Canadian Lumber Reporter.

##### 2) Hardwood lumber (weighted price)<sup>1,2</sup>

(C\$/1000 bd ft)

12.01.38



1. 4/4 raw, F.O.B. Montreal, valid to November 1996.

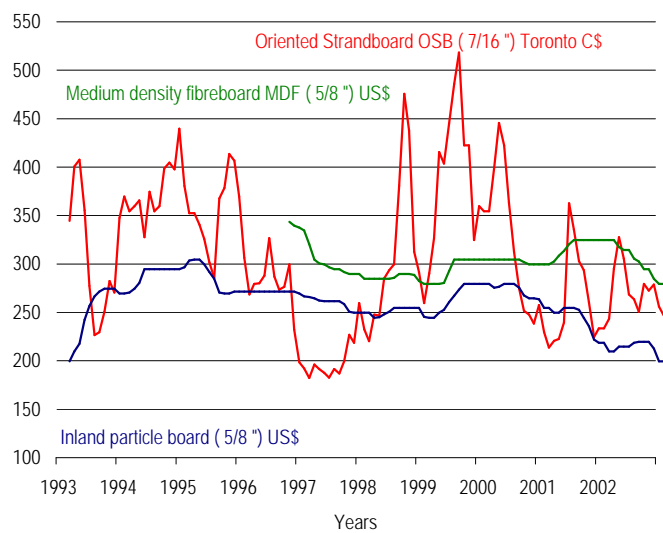
2. 4/4 raw, F.O.B. mill, beginning 1997.

Source: Pribec.

##### 4) Board

(C\$/1000 sq.ft.)

12.01.40



Source: Random Lengths.

# 12 The forest sector in Québec's economy

## Economic and financial indicators (cont'd)

### Economic indicators for the forest sector (cont'd)

#### Price trends

##### 1) Softwood lumber (composit price)

12.01.37 (g)

Month	(\$/1000 bd ft)														
	1993			1994			1995			1996			1997		
	Toronto green C\$	Columbus dry US\$	Columbus dry C\$	Toronto green C\$	Columbus dry US\$	Columbus dry C\$	Toronto green C\$	Columbus dry US\$	Columbus dry C\$	Toronto green C\$	Columbus dry US\$	Columbus dry C\$	Toronto green C\$	Columbus dry US\$	Columbus dry C\$
J	302.49	337.03	430.59	409.09	424.65	559.43	372.80	318.43	449.91	295.83	285.90	390.68	385.35	388.78	524.31
F	349.01	406.72	512.35	421.07	422.54	567.09	376.44	315.28	441.55	309.61	301.27	414.40	397.37	394.29	534.34
M	381.15	438.87	554.03	416.18	412.81	563.20	355.68	299.33	421.28	314.67	311.86	425.78	411.07	384.54	527.51
A	330.22	377.78	476.76	366.58	349.37	483.00	329.27	282.57	388.79	336.18	334.73	454.93	432.94	406.23	566.28
M	276.24	301.63	383.10	396.90	384.46	530.94	293.97	269.54	366.79	410.59	386.77	529.49	424.24	394.81	545.03
J	279.74	287.56	367.67	402.28	382.42	529.19	255.12	242.92	334.55	410.94	378.34	516.63	402.69	386.75	535.27
J	279.90	283.50	363.36	395.68	362.30	500.88	292.99	298.93	406.81	426.24	371.43	508.60	413.89	385.52	530.90
A	300.23	314.10	411.09	431.20	375.08	516.71	296.04	291.81	395.37	454.14	407.72	559.30	412.18	382.08	531.29
S	304.83	336.74	444.90	385.06	342.47	463.60	324.77	311.58	420.85	436.69	412.67	565.03	401.26	367.66	509.91
O	305.33	355.99	472.08	380.72	345.28	466.13	296.34	277.91	373.93	385.33	380.47	513.87	390.13	353.48	490.17
N	356.68	403.61	531.84	382.09	358.59	489.44	285.71	274.77	371.82	390.38	411.40	550.62	380.77	349.89	494.50
D	395.96	430.95	573.47	363.13	336.73	467.52	287.26	281.87	386.02	379.14	383.59	522.37	375.58	346.11	491.48
<b>Annual</b>	<b>321.82</b>	<b>356.21</b>	<b>460.10</b>	<b>395.83</b>	<b>374.73</b>	<b>511.43</b>	<b>313.87</b>	<b>288.75</b>	<b>396.47</b>	<b>379.14</b>	<b>363.85</b>	<b>495.97</b>	<b>402.29</b>	<b>378.35</b>	<b>523.42</b>

Month	(\$/1000 bd ft)														
	1998			1999			2000			2001			2002		
	Toronto green C\$	Columbus dry US\$	Columbus dry C\$	Toronto green C\$	Columbus dry US\$	Columbus dry C\$	Toronto green C\$	Columbus dry US\$	Columbus dry C\$	Toronto green C\$	Columbus dry US\$	Columbus dry C\$	Toronto green C\$	Columbus dry US\$	Columbus dry C\$
J	380.45	341.81	492.48	340.84	346.88	526.98	350.78	358.73	519.78	291.88	247.97	372.73	365.66	299.38	479.09
F	393.17	354.53	508.40	345.11	354.31	530.51	356.01	356.48	517.28	311.22	265.01	403.30	395.31	326.76	521.46
M	377.68	345.62	489.50	344.00	357.01	541.76	373.55	354.17	517.29	319.54	277.99	433.25	428.15	355.87	564.77
A	374.02	361.34	516.64	350.69	361.24	537.30	353.22	339.37	498.34	348.00	300.18	467.53	405.80	339.63	537.08
M	339.75	334.38	483.17	389.97	386.04	564.41	327.12	317.90	475.41	395.36	381.47	588.02	388.15	336.49	521.44
J	345.18	329.82	483.28	422.71	409.61	601.76	349.36	315.79	466.37	396.36	349.73	533.13	369.17	328.05	502.47
J	364.85	337.62	502.24	449.11	433.82	645.88	317.79	297.22	439.25	395.42	320.56	490.57	389.04	334.86	517.67
A	370.83	351.04	538.95	410.76	377.65	563.59	301.27	281.59	417.44	425.82	364.08	560.74	366.06	311.47	488.37
S	349.93	333.44	507.26	388.17	365.76	540.16	301.93	277.38	412.23	393.03	329.37	516.35	341.33	287.11	452.44
O	337.02	324.48	501.32	363.37	343.04	506.77	301.10	267.49	404.52	344.11	279.83	439.66	342.40	291.57	460.04
N	339.22	330.56	508.86	370.22	359.46	527.49	304.56	270.22	416.74	349.44	295.25	470.16	326.70	274.81	431.84
D	339.87	334.27	515.51	367.76	366.51	539.96	311.75	263.77	401.57	350.84	285.11	449.75	328.55	278.65	434.50
<b>Annual</b>	<b>359.33</b>	<b>339.91</b>	<b>503.97</b>	<b>378.56</b>	<b>371.78</b>	<b>552.21</b>	<b>329.04</b>	<b>308.34</b>	<b>457.19</b>	<b>360.08</b>	<b>308.05</b>	<b>477.10</b>	<b>370.53</b>	<b>313.72</b>	<b>492.60</b>

Source: Pribec.

## 12 The forest sector in Québec's economy

### Economic and financial indicators (cont'd)

### Economic indicators for the forest sector (cont'd)

### Price trends (cont'd)

### 2) Hardwood lumber (weighted price)<sup>1, 2</sup>

12.01.38 (g)

Month	(C\$/1000 bd ft)									
	1993		1994		1995		1996		1997 <sup>2</sup>	
	Birch and cherry	Maple	Birch and cherry	Maple	Birch and cherry	Maple	Birch and cherry	Maple	Birch and cherry	Maple
J	497.70	481.95	533.70	534.75	542.00	530.15	526.60	545.60	..	..
F	497.70	481.95	547.30	545.10	542.00	530.15	526.60	545.60	592.85	553.88
M	512.40	515.15	547.30	545.10	553.35	541.15	526.60	545.60	632.58	541.06
A	512.40	515.15	547.30	545.10	553.35	541.15	526.60	545.60	663.60	586.13
M	512.40	515.15	547.30	545.10	542.60	539.00	526.60	545.60	697.33	589.24
J	531.20	520.10	547.30	545.10	542.60	539.00	526.60	545.60	697.33	589.24
J	531.20	520.10	547.30	545.10	542.60	539.00	526.60	545.60	723.48	594.10
A	525.90	518.85	547.30	539.80	542.60	539.00	526.60	545.60	728.73	594.10
S	525.90	518.85	542.00	536.55	532.85	529.25	526.60	545.60	776.50	595.30
O	533.70	534.75	542.00	536.55	507.85	529.25	548.85	562.25	791.48	592.36
N	533.70	534.75	542.00	530.15	507.85	529.25	548.85	562.25	800.48	605.07
D	533.70	534.75	542.00	530.15	507.85	529.25	..	..	800.5	605.07
<b>Annual</b>	<b>520.66</b>	<b>515.96</b>	<b>544.40</b>	<b>539.88</b>	<b>534.79</b>	<b>534.63</b>	<b>530.65</b>	<b>548.63</b>	<b>718.62</b>	<b>585.96</b>

Month	(C\$/1000 bd ft)									
	1998		1999		2000		2001		2002	
	Birch and cherry	Maple	Birch and cherry	Maple	Birch and cherry	Maple	Birch and cherry	Maple	Birch and cherry	Maple
J	810.00	604.71	725.98	549.79	769.63	597.49	824.08	607.83	710.68	538.12
F	823.35	562.57	738.28	570.88	783.38	602.14	812.08	604.08	734.93	542.77
M	789.10	581.35	720.60	563.18	789.88	606.84	779.43	586.03	752.93	551.83
A	790.98	575.71	717.60	558.98	789.88	603.13	779.43	578.83	757.43	551.08
M	778.83	560.91	717.60	558.98	794.50	604.43	779.43	577.83	757.43	551.08
J	740.75	544.17	717.60	560.24	799.68	604.81	741.43	566.97	764.18	552.88
J	779.45	559.68	717.60	560.24	799.68	604.81	741.43	565.17	772.43	554.68
A	753.73	528.38	720.65	560.24	817.38	610.66	722.93	563.07	776.93	554.88
S	699.00	541.58	725.53	560.24	820.33	610.66	685.18	550.22	776.93	554.88
O	697.85	548.28	737.88	565.41	820.33	604.86	697.18	551.32	776.93	554.88
N	717.20	553.12	743.88	582.71	824.08	608.13	701.68	537.52	799.30	552.80
D	725.98	559.25	767.75	586.84	824.08	609.63	706.18	537.52	799.30	552.80
<b>Annual</b>	<b>758.85</b>	<b>559.98</b>	<b>729.25</b>	<b>564.81</b>	<b>802.74</b>	<b>605.63</b>	<b>747.54</b>	<b>568.87</b>	<b>764.95</b>	<b>551.06</b>

1. 4/4 raw, F.O.B. Montreal, valid to November 1996.

2. 4/4 raw, F.O.B. mill, beginning 1997.

Source: Pribec.

**12 The forest sector in Québec's economy**  
**Economic and financial indicators (cont'd)**  
**Economic indicators for the forest sector (cont'd)**

**Price tends (cont'd)**

**3) Plywood (12.5 mm)**

**12.01.39 (g)**

Month	(C\$/1000 sq.ft.)									
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
J	489	507	556	469	583	437	485	525	422	482
F	519	505	536	470	551	443	522	545	446	510
M	533	505	564	484	564	427	543	576	450	543
A	513	474	524	474	572	416	553	557	446	551
M	447	510	498	494	544	396	596	473	498	516
J	401	489	453	494	515	436	639	432	476	510
J	427	492	531	529	505	484	671	419	459	507
A	460	545	536	543	488	540	670	415	470	523
S	485	543	544	549	514	526	577	431	480	542
O	488	553	531	545	527	481	508	452	460	547
N	529	591	520	569	484	523	502	441	461	517
D	554	560	490	589	461	526	523	434	467	491
<b>Moyenne</b>	<b>487</b>	<b>523</b>	<b>524</b>	<b>517</b>	<b>526</b>	<b>469</b>	<b>566</b>	<b>475</b>	<b>461</b>	<b>520</b>

Source: Madison's Canadian Lumber Reporter.

## 12 The forest sector in Québec's economy

### Economic and financial indicators (cont'd)

### Economic indicators for the forest sector (cont'd)

### Price trends (cont'd)

#### 4) Board

12.01.40 (g)

Month	(C\$/1000 sq.ft.)									
	1992		1993		1994		1995		1996	
	Oriented Strandboard (7/16 ")	Inland particle board (5/8 ")	Oriented Strandboard (7/16 ")	Inland particle board (5/8 ")	Oriented Strandboard (7/16 ")	Inland particle board (5/8 ")	Oriented Strandboard (7/16 ")	Inland particle board (5/8 ")	Oriented Strandboard (7/16 ")	Inland particle board (5/8 ")
	Toronto C\$	US\$	Toronto C\$	US\$	Toronto C\$	US\$	Toronto C\$	US\$	Toronto C\$	US\$
J	173	180	330	185	340	256	338	289	254	257
F	240	180	386	195	345	260	338	290	265	257
M	251	180	393	203	351	266	326	290	265	257
A	246	180	341	228	313	280	311	285	274	257
M	241	180	263	242	360	280	287	277	312	257
J	235	180	212	252	340	280	271	270	273	257
J	227	180	215	257	345	280	353	256	259	257
A	262	180	236	260	384	280	364	255	262	257
S	314	180	268	260	390	280	399	255	285	257
O	274	180	256	260	383	280	392	257	218	257
N	248	180	333	255	425	280	355	257	184	255
D	267	180	355	255	366	282	292	257	178	252
Moyenne	248	180	299	238	362	275	336	270	252	256

Mois	(C\$/1000 sq.ft.)								
	1997			1998			1999		
	Oriented Strandboard (7/16 ")	Inland particle board (5/8 ")	MDF (5/8 po)	Oriented Strandboard (7/16 ")	Inland particle board (5/8 ")	MDF (5/8 po)	Oriented Strandboard (7/16 ")	Inland particle board (5/8 ")	MDF (5/8 po)
	Toronto C\$	US\$	US\$	Toronto C\$	US\$	US\$	Toronto C\$	US\$	US\$
J	168	251	306	276	230	270	276	230	265
F	182	250	290	312	230	270	312	230	265
M	177	248	286	401	235	270	401	235	265
A	173	247	285	389	238	270	389	238	266
M	168	247	282	430	246	270	430	246	278
J	177	247	280	471	253	271	471	253	290
J	173	247	280	504	259	275	504	259	290
A	185	244	277	408	265	275	408	265	290
S	212	236	275	408	265	275	408	265	290
O	204	235	275	310	265	274	310	265	290
N	245	235	275	345	265	268	345	265	290
D	218	235	270	340	265	265	340	265	290
Moyenne	190	244	282	383	251	271	383	251	281

Mois	(C\$/1000 sq.ft.)								
	2000			2001			2002		
	Oriented Strandboard (7/16 ")	Inland particle board (5/8 ")	MDF (5/8 po)	Oriented Strandboard (7/16 ")	Inland particle board (5/8 ")	MDF (5/8 po)	Oriented Strandboard (7/16 ")	Inland particle board (5/8 ")	MDF (5/8 po)
	Toronto C\$	US\$	US\$	Toronto C\$	US\$	US\$	Toronto C\$	US\$	US\$
J	340	265	290	199	240	285	229	195	310
F	385	261	290	206	235	288	280	195	310
M	431	262	290	208	235	294	313	200	303
A	408	265	290	225	240	299	291	200	300
M	349	265	290	348	240	306	254	200	300
J	298	265	290	321	240	310	249	204	291
J	260	261	290	288	238	310	236	205	288
A	237	253	288	279	230	310	265	205	280
S	233	250	285	246	221	310	258	205	280
O	224	250	285	210	208	310	264	198	270
N	243	249	285	219	204	310	242	185	265
D	215	240	285	205	199	310	232	185	265
Moyenne	302	257	288	246	227	304	259	198	289

Source: Random Lengths.

## 12 The forest sector in Québec's economy

### Economic and financial indicators (cont'd)

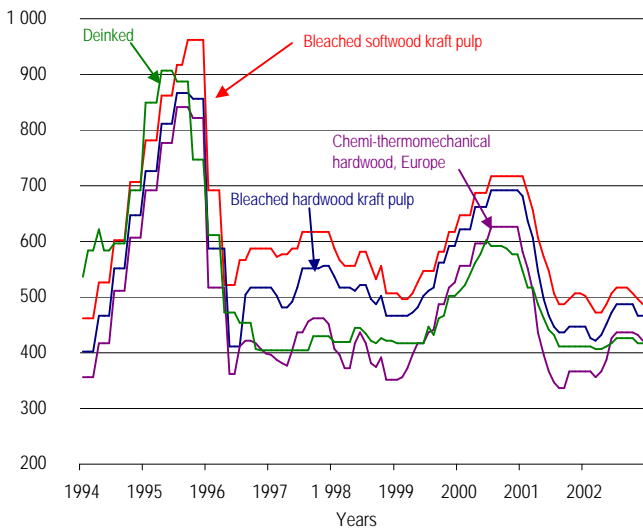
### Economic indicators for the forest sector (cont'd)

#### Price trends (cont'd)

##### 5) Market pulp

(US\$/mt)

12.01.41

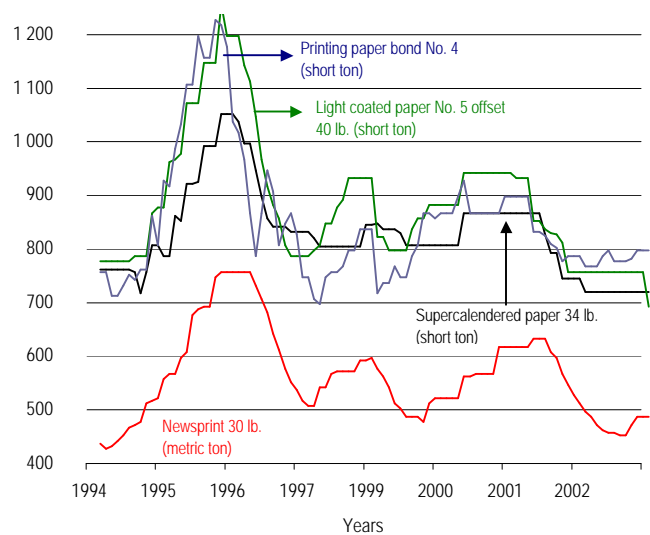


Source: Pulp & Paper Week.

##### 6) Paper

(US\$)

12.01.42

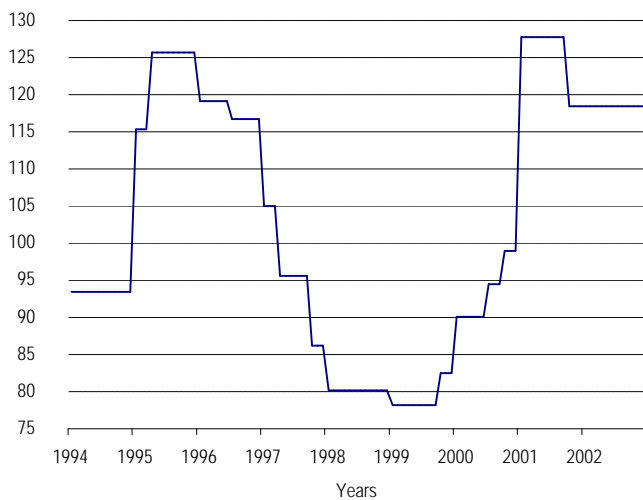


Source: Pulp & Paper Week.

##### 7) Revenue from Chips <sup>1</sup>

(C\$/1 000 bd ft)

12.01.43



1. The calculation takes into account chip production per 1 000 bd ft.

Source: Pribec and Ministère des Ressources naturelles, de la Faune et des Parcs.

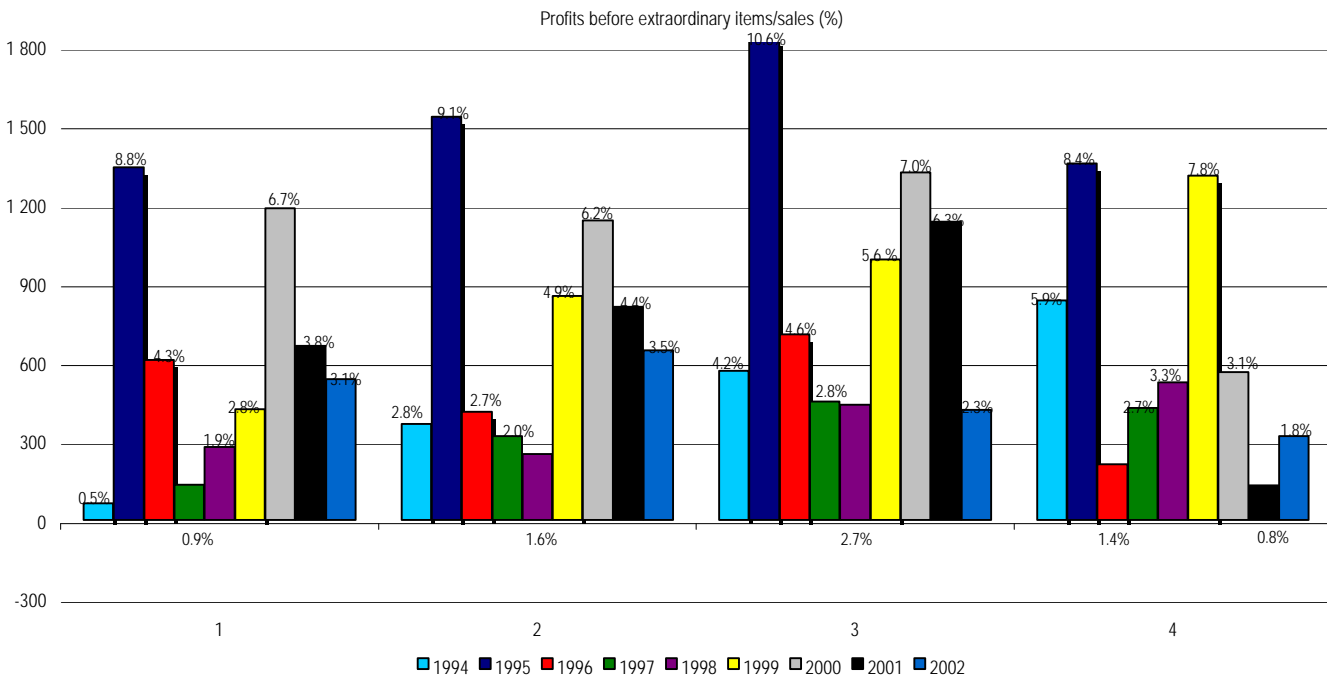
# 12 The forest sector in Québec's economy

## Economic and financial indicators (cont'd)

### Financial indicators for the forest sector (cont'd)

Quarterly profits  
Wood and paper (Canada)  
(M\$)

12.01.44



## 12 The forest sector in Québec's economy

### Economic and financial indicators (cont'd)

### Economic indicators for the forest sector (cont'd)

### Price trends (cont'd)

### 5) Market pulp

12.01.41 (g)

		(US\$/mt)			
Years / month		Bleached softwood kraft pulp	Bleached hardwood kraft pulp	Chemithermomechanical hardwood, Europe	Deinked
1994	j	455	395	350	530
	f	455	395	350	578
	m	455	395	350	578
	a	520	460	410	615
	m	520	460	410	578
	j	520	460	410	578
	j	595	545	505	590
	a	595	545	505	590
	s	595	545	505	590
	o	700	640	600	685
	n	700	640	600	685
	d	700	640	600	685
1995	j	775	720	685	843
	f	775	720	685	843
	m	775	720	685	843
	a	855	805	770	900
	m	855	805	770	900
	j	855	805	770	900
	j	910	860	835	880
	a	910	860	835	880
	s	955	860	835	880
	o	955	850	815	740
	n	955	850	815	740
	d	955	850	815	740
1996	j	685	580	510	605
	f	685	580	510	605
	m	685	580	510	605
	a	515	580	510	465
	m	515	405	355	465
	j	515	405	355	465
	j	560	405	405	448
	a	560	498	415	448
	s	580	510	415	448
	o	580	510	410	400
	n	580	510	400	398
	d	580	510	393	398
1997	j	580	510	390	398
	f	565	495	380	398
	m	570	475	375	398
	a	570	475	370	398
	m	580	485	398	398
	j	580	510	430	398
	j	610	545	430	398
	a	610	545	450	398
	s	610	545	455	423
	o	610	545	455	423
	n	610	550	455	423
	d	610	550	445	423
1998	j	580	530	400	413
	f	560	510	390	413
	m	550	510	365	413
	a	550	510	365	413
	m	550	505	410	438
	j	575	515	430	438
	j	575	515	410	428
	a	550	490	375	415
	s	525	480	368	410
	o	550	495	385	420
	n	500	460	345	415
	d	500	460	345	415

Source: Pulp & Paper Week



## 12 The forest sector in Québec's economy

### Economic and financial indicators (cont'd)

### Economic indicators for the forest sector (cont'd)

### Price trends (cont'd)

### 5) Market pulp (contd)

12.01.41 (g)

		(US\$/mt)			
Years / month		Bleached softwood kraft pulp	Bleached hardwood kraft pulp	Chemithermomechanical hardwood, Europe	Deinked
1999	j	500	460	345	410
	f	490	460	350	410
	m	490	460	365	410
	a	500	465	390	410
	m	520	475	410	410
	j	540	495	410	410
	j	540	505	430	440
	a	540	510	435	425
	s	575	555	480	455
	o	575	555	480	460
	n	610	585	510	495
	d	610	585	520	495
2000	j	640	615	550	505
	f	640	615	550	515
	m	640	615	550	535
	a	680	655	590	555
	m	680	655	590	570
	j	680	655	590	595
	j	710	685	620	585
	a	710	685	620	585
	s	710	685	620	585
	o	710	685	620	580
	n	710	685	620	570
	d	710	685	620	570
2001	j	710	675	575	540
	f	680	630	545	510
	m	650	600	505	510
	a	600	540	430	480
	m	565	490	390	455
	j	540	460	360	435
	j	500	440	340	425
	a	480	430	330	405
	s	480	430	330	405
	o	490	440	360	405
	n	500	440	360	405
	d	500	440	360	405
2002	j	495	440	360	405
	f	480	420	360	405
	m	465	415	350	400
	a	465	425	360	400
	m	480	445	380	405
	j	500	465	420	410
	j	510	480	430	420
	a	510	480	430	420
	s	510	480	430	420
	o	500	480	430	420
	n	490	460	425	410
	d	480	460	415	410

Source: Pulp & Paper Week.

## 12 The forest sector in Québec's economy

### Economic and financial indicators (cont'd)

### Economic indicators for the forest sector (cont'd)

### Price trends (cont'd)

#### 6) Paper

12.01.42 (g)

Years / month	(US\$/mt)	(US\$/short ton)	(US\$/short ton)	(US\$/short ton)
	Newsprint (30 lb.)	Supercalendered paper (34 lb.)	Light coated paper n° 5 offset (40 lb.)	Printing paper bond n° 4
1994				
j	430	755	770	750
f	420	755	770	750
m	425	755	770	705
a	435	755	770	705
m	445	755	770	725
j	460	755	770	745
j	465	750	780	735
a	470	710	780	755
s	505	750	780	755
o	510	800	860	855
n	515	800	870	800
d	550	780	870	920
1995				
j	560	780	955	910
f	560	855	960	980
m	590	845	970	1 025
a	600	915	1 065	1 100
m	670	915	1 065	1 100
j	680	918	1 065	1 190
j	685	985	1 140	1 150
a	685	985	1 140	1 150
s	740	985	1 140	1 220
o	750	1 045	1 250	1 210
n	750	1 045	1 190	1 170
d	750	1 045	1 190	1 030
1996				
j	750	1 030	1 190	1 010
f	750	990	1 135	960
m	750	990	1 105	860
a	725	940	1 040	780
m	700	890	960	860
j	675	850	910	940
j	635	835	875	900
a	605	835	850	800
s	570	835	800	840
o	545	825	780	860
n	530	825	780	820
d	510	825	780	740
1997				
j	500	825	780	740
f	500	813	790	700
m	535	798	800	690
a	535	798	840	740
m	560	798	840	750
j	565	798	870	750
j	565	798	885	760
a	565	798	925	790
s	565	798	925	790
o	585	798	925	830
n	585	838	925	830
d	590	838	925	830

Source: Pulp & Paper Week.

## 12 The forest sector in Québec's economy

### Economic and financial indicators (cont'd)

### Economic indicators for the forest sector (cont'd)

### Price trends (cont'd)

### 6) Paper (cont'd)

12.01.42 (g)

Years / month	(US\$/mt)	(US\$/short ton)	(US\$/short ton)	(US\$/short ton)
	Newsprint (30 lb.)	Supercalendered paper (34 lb.)	Light coated paper n° 5 offset (40 lb.)	Printing paper bond n° 4
1999				
janv	570	840	815	710
févr	555	830	815	730
mars	535	830	790	730
avr	505	830	790	760
mai	495	823	790	740
juin	480	800	790	740
juil	480	800	830	780
août	480	800	850	800
sept	470	800	850	860
oct	505	800	875	860
nov	515	800	875	850
déc	515	800	875	860
2000				
janv	515	800	875	860
févr	515	800	875	860
mars	515	800	875	890
avr	555	860	935	920
mai	555	860	935	860
juin	560	860	935	860
juil	560	860	935	860
août	560	860	935	860
sept	560	860	935	860
oct	610	860	935	860
nov	610	860	935	890
déc	610	860	935	890
2001				
janv	610	860	925	890
févr	610	860	925	890
mars	610	860	925	890
avr	625	860	845	825
mai	625	860	845	825
juin	625	820	830	818
juil	600	785	823	803
août	590	785	820	795
sept	560	738	805	770
oct	540	738	750	780
nov	520	738	750	780
déc	505	738	750	780
2002				
janv	490	713	750	760
févr	480	713	750	760
mars	465	713	750	760
avr	455	713	750	780
mai	450	713	750	790
juin	450	713	750	770
juil	445	713	750	770
août	445	713	750	770
sept	465	713	750	775
oct	480	713	750	790
nov	480	713	750	790
déc	480	713	685	790

Source: Pulp & Paper Week.

## 12 The forest sector in Québec's economy

### Economic and financial indicators (cont'd)

#### Economic indicators for the forest sector (cont'd)

Price from chips (C\$/bdmt)

12.01.43 (g)

Month	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Janvier	93	90	90	110	120	110	90	90	100	135	125
Février	93	90	90	110	120	110	90	90	100	135	125
Mars	93	90	90	110	120	110	90	90	100	135	125
Avril	93	90	90	120	120	100	90	90	100	135	125
Mai	93	90	90	120	120	100	90	90	100	135	125
Juin	93	90	90	120	120	100	90	90	100	135	125
Juillet	93	90	90	120	118	100	90	90	105	135	125
Août	93	90	90	120	118	100	90	90	105	135	125
Septembre	93	90	90	120	118	100	90	90	105	135	125
Octobre	93	90	90	120	118	90	90	95	110	125	125
Novembre	93	90	90	120	118	90	90	95	110	125	125
Décembre	93	90	90	120	118	90	90	95	110	125	125
Mean	93	90	90	118	119	100	90	91	104	133	125

Source: Ministère des Ressources naturelles, de la Faune et des Parcs.

#### Sawmill chips by 1000 bd ft (bdmt/1 000 bd ft)

Month	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Mean	1.068	1.038	1.018	1.032	0.978	0.938	0.871	0.849	0.883	0.933	0.933

Source : Ministère des Ressources naturelles, de la Faune et des Parcs.

#### 7) Revenue from chips (C\$/1 000 bd ft)

Month	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Janvier	99	93	92	114	117	103	78	76	88	126	117
Février	99	93	92	114	117	103	78	76	88	126	117
Mars	99	93	92	114	117	103	78	76	88	126	117
Avril	99	93	92	124	117	94	78	76	88	126	117
Mai	99	93	92	124	117	94	78	76	88	126	117
Juin	99	93	92	124	117	94	78	76	88	126	117
Juillet	99	93	92	124	115	94	78	76	93	126	117
Août	99	93	92	124	115	94	78	76	93	126	117
Septembre	99	93	92	124	115	94	78	76	93	126	117
Octobre	99	93	92	124	115	84	78	81	97	117	117
Novembre	99	93	92	124	115	84	78	81	97	117	117
Décembre	99	93	92	124	115	84	78	81	97	117	117
Mean	99	93	92	121	116	94	78	77	92	124	117

Sources: Pribec et ministère des Ressources naturelles, de la Faune et des Parcs.

# 12 The forest sector in Québec's economy

## Economic and financial indicators (cont'd)

### Financial indicators for the forest sector (cont'd)

#### Quarterly profits

#### Wood and paper (Canada)

12.01.44 (g)

Years	Profits before extraordinary items/sales (%)	
	(M\$)	Sales (%)
1994	62	0.5%
1995	1 340	8.8%
1996	608	4.3%
1997	134	0.9%
1998	276	1.9%
1999	421	2.8%
2000	1 184	6.7%
2001	662	3.8%
2002	534	3.1%
<b>1<sup>st</sup> quarterly</b>		
1994	364	2.8%
1995	1 532	9.1%
1996	410	2.7%
1997	317	2.0%
1998	250	1.6%
1999	850	4.9%
2000	1 138	6.2%
2001	810	4.4%
2002	644	3.5%
<b>2<sup>nd</sup> quarterly</b>		
1994	566	4.2%
1995	1 829	10.6%
1996	706	4.6%
1997	449	2.8%
1998	438	2.7%
1999	989	5.6%
2000	1 321	7.0%
2001	1 134	6.3%
2002	419	2.3%
<b>3<sup>rd</sup> quarterly</b>		
1994	833	5.9%
1995	1 354	8.4%
1996	210	1.4%
1997	425	2.7%
1998	522	3.3%
1999	1 308	7.8%
2000	561	3.1%
2001	131	0.8%
2002	317	1.8%
<b>4<sup>th</sup> quarterly</b>		
2002 (moyenne)	479	2.7%

Source: Statistics Canada: 61-008

## 12 The forest sector in Québec's economy

### Economic and financial indicators (cont'd)

#### Economic indicators for the forest sector (cont'd)

#### Share of paper mill-integrated sawmills in Québec's authorized roundwood consumption (%)

12.01.46(g)

Paper mills	March 1987	December 1989	October 1991	December 1996	December 1997	December 1998	December 1999	December 2000	December 2001	December 2002
Abitibi-Price inc.	1.99	1.98	1.45							
Avenor inc.	0.85	0.85	0.92	0.86	0.86	0.84				
Bowater Produits forestiers du Canada inc. Corporation QUNO	2.63	2.62	2.84				0.82	0.82	0.82	6.41
Cascades inc.					0.21	0.22	0.21	0.21	0.21	0.86
Daishowa inc.	1.11	1.11	1.20	0.80	0.76	0.74	0.72	0.72		
Compagnie Papiers Stadacona									0.72	0.72
Domtar inc.	7.20	10.94	10.15	7.00	6.92	7.00	6.84	6.85	6.83	6.83
Donohue inc.	8.07	15.47	15.24	14.01	14.58	13.47	13.40			
Irving pâte et papier Itée	0.78	0.78	0.85	0.86	0.82	0.80	0.78	0.78	0.78	0.78
Industries James MacLaren inc.	0.57	5.22	5.69	2.97	2.82	2.75	2.69	2.69		
Kruger inc.		3.83	6.18	5.12	6.39	7.12	6.62	6.15	7.39	7.27
Produits forestiers Alliance inc.				5.63	5.42	5.66	5.85	5.86	5.87	
Produits forestiers E.B. Eddy Itée Foresterie Noranda	1.55								2.69	2.69
Stoned-Consolidated inc.	1.36	4.55	4.79	5.58	5.95	5.84	5.97	18.73	18.68	18.38
Tembec inc.	2.80	2.79	4.65	5.17	5.06	4.38	4.27	4.62	4.61	5.04
Uniforêt inc.				5.14	5.33	5.21	5.09	5.10	3.97	3.92
<b>Integrated sawmills</b>	<b>28.91</b>	<b>50.14</b>	<b>53.96</b>	<b>53.14</b>	<b>55.12</b>	<b>54.04</b>	<b>53.27</b>	<b>52.54</b>	<b>52.56</b>	<b>52.90</b>
<b>Independent sawmills</b>	<b>71.09</b>	<b>49.86</b>	<b>46.04</b>	<b>46.86</b>	<b>44.88</b>	<b>45.96</b>	<b>46.73</b>	<b>47.46</b>	<b>47.44</b>	<b>47.10</b>
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source : Ministère des Ressources naturelles, de la Faune et des Parcs, Direction du développement de l'industrie des produits forestiers (in-house compilation).

## 12 The forest sector in Québec's economy

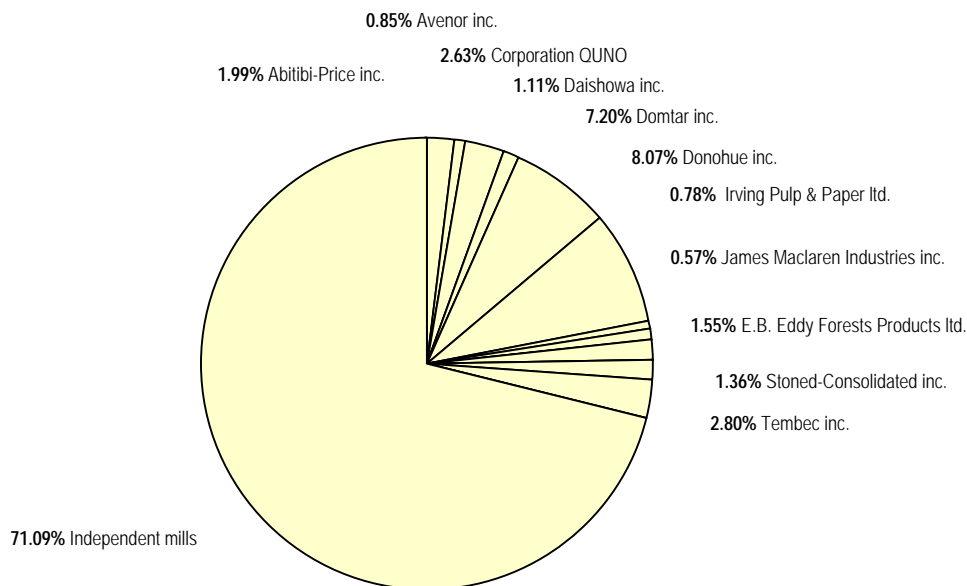
### Economic and financial indicators (cont'd)

### Economic indicators for the forest sector (cont'd)

### Share of paper mill-integrated sawmills in Québec's authorized roundwood consumption (%)

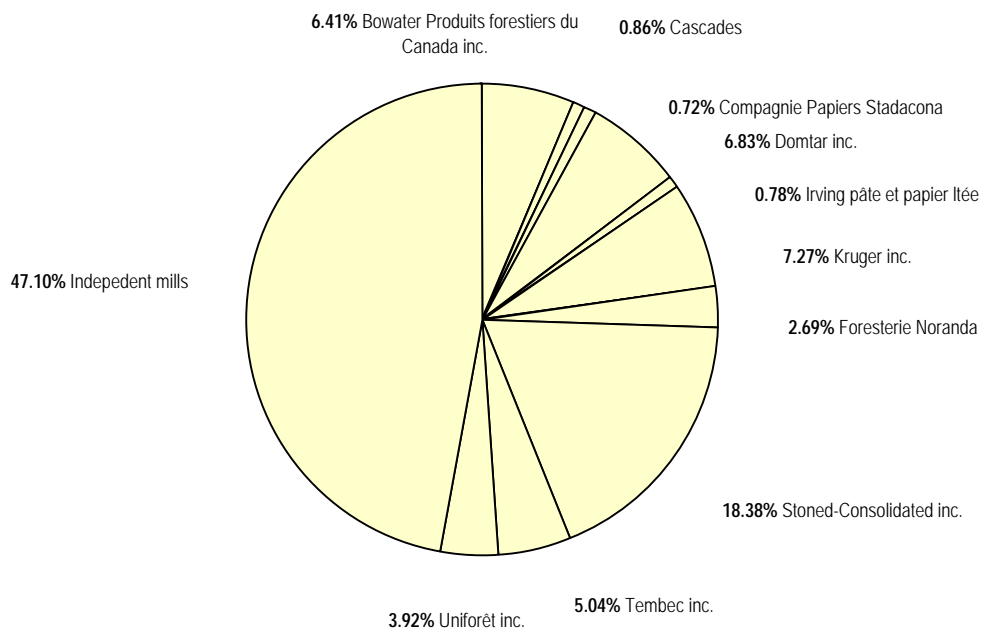
12.01.47

March 1987



12.01.48

December 2002



Source: Ministère des Ressources naturelles, de la Faune et des Parcs, Direction du développement de l'industrie des produits forestiers (in-house compilation).