

# **Atlas of the forest sector in Northwest Russia 2009**

Yuri Gerasimov, Sari Karvinen and Timo Leinonen

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<b>Abstract</b> This atlas is a collection of maps with a short description of the current situation of the forest sector in Northwest Russia including regions of Karelia, Komi, Arkhangelsk, Vologda, Leningrad, Pskov, Novgorod, and Murmansk. The cartographic information is grouped in the following way: forest resources, silviculture, wood harvesting, production and the most important producers of wood-based products (sawnwood, plywood, wood-based panels, pulp, paper, paperboard), utilization of birch and aspen, as well as producers of forest-related machinery, wood pellets, and bricks. This review serves the information needs of different stakeholders and those interested in the forest sector in Russia.			
<b>Keywords</b> Russia, forest resources, wood harvesting, forest industry			
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<b>Other information</b>			



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## Preface

The project “Wood harvesting and logistics in Russia – Focus on research and business opportunities” studies the current state and the future development of wood procurement in Northwest Russia. As a result of mapping the starting point of the project, this publication presents basic information about the current state of the forest sector in Northwest Russia in compact and visualised form – all at one glance.

All maps are available for use and can be downloaded from the internet service for Russian forestry: [www.idanmetsatieto.info](http://www.idanmetsatieto.info) (Kuvapankki /Kartat).



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the EU  
2007–2013

## 1 Introduction

Northwest Russia, including the regions of Karelia (*Respublika Kareliya*), Komi (*Respublika Komi*), Arkhangelsk (*Arkhangelskaya oblast*), Vologda (*Vologodskaya oblast*), Leningrad (*Leningradskaya oblast*), Novgorod (*Novgorodskaya oblast*), and Pskov (*Pskovskaya oblast*), plays a key role in the Russian forest sector and has been well developed in comparison with the rest of Russia. In 2008, the region produced 36% of the total industrial roundwood of Russia, 53% of its pulp, paper, and cardboard, 36% of its plywood, and 28% of its sawnwood (Rosstat 2009). In contrast, Northwest Russia has only 10% of the forest land and 12% of the growing stock of the whole of Russia. Nevertheless, the forest resources of the region have supplied not only the domestic forest industry but also the industrial roundwood export market. In fact, Northwest Russia has been the most important industrial roundwood supplier to Europe, particularly for the Nordic countries. Finland has traditionally been one of the key importers of Russian roundwood originating mostly from Northwest Russia. Roundwood exports from Russia to Finland have been increasing steadily during the past 10–15 years. Recent development in Russia suggests, however, that export of roundwood is not going to increase any more, and on the contrary is expected to decrease. This is due to increasing export duties on roundwood. The aim of the Russian authorities is to decrease the export of industrial roundwood and increase wood processing in Russia. In addition, Russia has renewed forest legislation aiming at clarification of responsibilities and rights between the state (forest owner) and private business (forest user), and also between the federation and the regions (Lesnoy kodeks 2006).

This review aims to give a comprehensive picture of the situation of the forest sector in Northwest Russia, but in a very compact form presenting information mainly on maps. This review serves the information needs of different stakeholders and those interested in the forest sector in Russia.

## 2 Forest resources and their uses

In Russia, forest land area covers 838 million hectares and the volume of the growing stock is 76 billion cubic metres, of which 26% is located in the European part of Russia. Almost half of the forests of the European part are in the territory of Northwest Russia (Table 2.1). The forest fund (*lesnoy fond*) is owned by the Russian Federation and covers 95% of the forest area. Forests outside the forest fund are located in military areas, cities, and villages and can be owned by the state, communities, companies, or private individuals. The forest fund is divided into exploitable forests, protective forests, and reserve forests (Rosleshoz 2009). Exploitable forests are meant for wood harvesting, protective forests are conservation and recreation areas where clear cutting is prohibited, and reserve forests are remote areas located mostly in roadless territories, where wood harvesting is not intended within the next 20 years (Lesnoy kodeks 2006).

**Table 2.1.** Forest resources of Russia and Northwest Russia in 2008

Region	Forest land <sup>1</sup>	Stocked forest land <sup>2</sup>			Exploitable forests <sup>3</sup>		
		Area	Volume	Mean increment <sup>4</sup>	Area	Volume	Mean increment
	1 000 ha	1 000 ha	mil. m <sup>3</sup>	mil. m <sup>3</sup>	1 000 ha	mil. m <sup>3</sup>	mil. m <sup>3</sup>
Russian federation	838 069	746 310	76 404	947	345 449	40 814	577
European part of Russia <sup>5</sup>	151 127	147 844	19 711	323	103 659	13 645	238
Northwest Russia	82 917	81 352	9 163	121	57 141	6 637	94
Arkhangelsk	22 377	21 994	2 481	29	16 260	1 783	22
Karelia	9 529	9 255	943	14	7 744	744	12
Komi	28 982	28 628	2 849	30	17 771	1 913	22
Leningrad	3 805	3 622	631	10	2 404	400	7
Murmansk	5 186	5 120	226	2	2 108	92	1
Novgorod	3 408	3 333	560	10	2 733	457	8
Pskov	2 090	2 042	322	7	1 784	280	6
Vologda	7 297	7 124	1 104	18	6 154	931	15

Source: Roslesinforg 2008

The distribution of forest resources by area, tree species, development class, volume of growing stock, and increment in Northwest Russian regions is presented on Maps 5.1–5.5.

Decision making in forest administration is delegated to the subjects (regions) of the Russian Federation. Each region has an authorized forest service (department, committee, or ministry) responsible for the allocation of forest use rights. A list of the regional forest services in Northwest Russia is presented in Table 2.2.

<sup>1</sup> *Lesnye zemli.*

<sup>2</sup> *Pokrytye lesnoy rastitelnostyu zemli.*

<sup>3</sup> All forests where final fellings are allowed are counted as exploitable forests (*lesa vozmozhnye dlya ekspluatatsii*).

<sup>4</sup> The mean increment (*obschiy sredny prirost*) is calculated by adding the average annual growth (*sredny prirost*) according to the age-classes.  $Sredny prirost = \text{volume of the stand} / \text{age of the stand}$  (Rosleshoz 1997).

<sup>5</sup> The European part of Russia includes the following federal districts: Northwest, Central, Volga, Southern, and Urals.



**Table 2.2.** Regional forest services in Northwest Russia

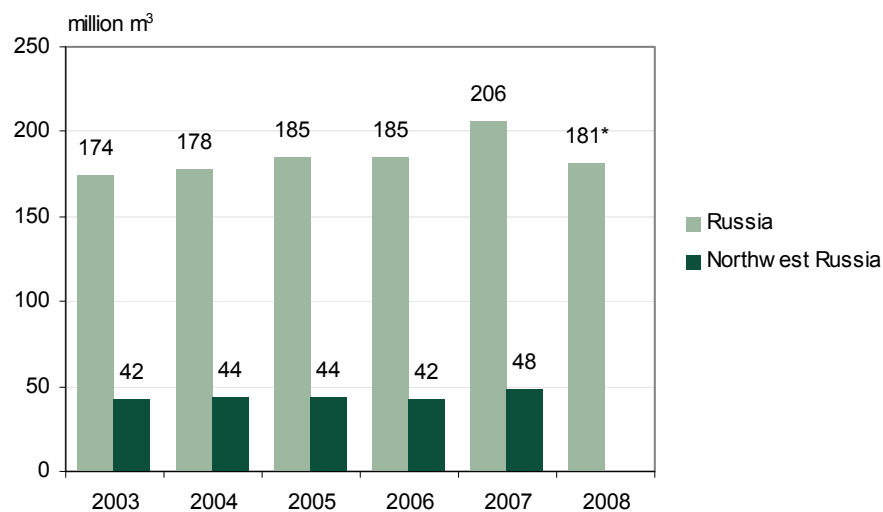
Region	Name	Official website
Arkhangelsk	Department of forest sector/ Департамент лесного комплекса	<a href="http://www.dvinaland.ru/power/departments/deples/">http://www.dvinaland.ru/power/departments/deples/</a>
Karelia	Ministry of forest sector/ Министерство лесного комплекса	<a href="http://www.gov.karelia.ru/gov/Power/Committee/Forest">http://www.gov.karelia.ru/gov/Power/Committee/Forest</a>
Komi	Forest committee/Комитет лесов	<a href="http://rkomi.ru/top/org_isp/inye/kom_les/">http://rkomi.ru/top/org_isp/inye/kom_les/</a>
Leningrad	Committee for natural resources and nature conservation/Комитет по природным ресурсам и охране окружающей среды	<a href="http://www.lenobl.ru/gov/committee/nature">http://www.lenobl.ru/gov/committee/nature</a>
Murmansk	Forestry committee/ Комитет по лесному хозяйству	<a href="http://www.gov-murman.ru/power/comit/forestry/">http://www.gov-murman.ru/power/comit/forestry/</a>
Novgorod	Forestry committee/ Комитет лесного хозяйства	<a href="http://adm.niac.ru/web.nsf/2e0cbaffb9bcd53c32573330042d4c4!OpenView">http://adm.niac.ru/web.nsf/2e0cbaffb9bcd53c32573330042d4c4!OpenView</a>
Pskov	State committee for nature use and nature conservation of the Pskov region/ Государственный комитет Псковской области по природопользованию и охране окружающей среды	<a href="http://www.licensing.pskov.ru/">http://www.licensing.pskov.ru/</a>
Vologda	Department of forest sector/ Департамент лесного комплекса	<a href="http://vologda-oblast.ru/main.asp?V=589&amp;LNG=RUS">http://vologda-oblast.ru/main.asp?V=589&amp;LNG=RUS</a>

Utilization of forest resources (allowable and actual cut, leased forests, road infrastructure) in the Northwest Russian regions is presented on Maps 5.6–5.9. The biggest logging companies are shown on Map 5.11 and in Appendix 1.

Companies and private individuals can access forest use rights for a certain period of time. For wood harvesting, forests can be leased for 10–49 years. Furthermore, rights for short-term use can be obtained for less than one year in some cases. In addition to wood harvesting, usage rights are given for collecting non-wood forest products or hunting. The right to use the forests can be obtained only through auctions. In Northwest Russia, 45% of the forest land is leased, the highest share being in the Leningrad region (Map 5.7, Roslesinforg 2008b).

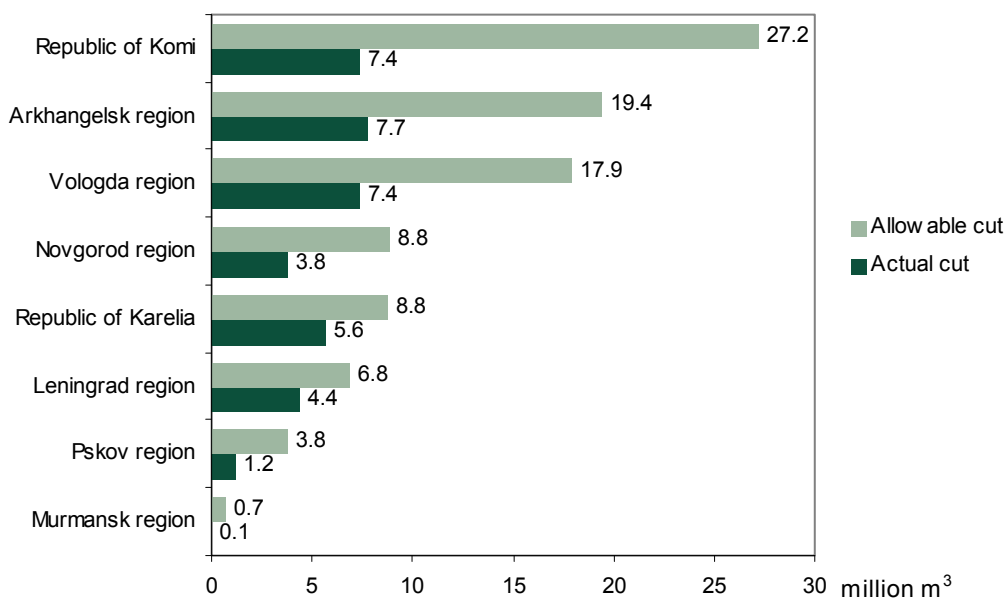
Allowable annual cut for the whole Russian Federation is 635 million cubic metres, of which only one third is utilized (Fig. 2.1). In Northwest Russia the allowable cut of final fellings<sup>1</sup> is about 94 million cubic metres and the degree of utilization is 40% (Roslesinforg 2008a). The ratio is the highest in the Leningrad region and Karelia (Fig. 2.2, Map 5.6). Until 2007, wood harvesting was at a quite stable level and harvesting volumes were increasing slightly, regardless of the numerous problems that harvesting companies had been facing. The low quality of forest stands, inadequate infrastructure, increasing production costs, and low productivity, among other things, have led to unprofitable wood harvesting businesses in Russia. In 2008, the situation became even worse when the world economic crisis led to a decreased demand for roundwood at the end of the year. In addition, within recent years exceptionally warm winters have caused serious problems for wood harvesting. In export-oriented regions, raised customs duties on wood exports have weakened the economic situation of harvesting companies further. Harvesting companies are forced to cut costs and reduce staffing levels, and the most unprofitable companies have already been closed (Lesprom 2009).

<sup>1</sup> Final fellings include clearcuts and selective fellings of mature and overmature stands.



Sources: Roslesinforg 2005, 2006, 2007, 2008, \* UNECE

**Fig. 2.1.** Development of roundwood removals in Russia and Northwest Russia (for Russia, all fellings under all administrations are included; for Northwest Russia, only forests under the administration of the Federal Forest Service “Rosleshoz” are included).

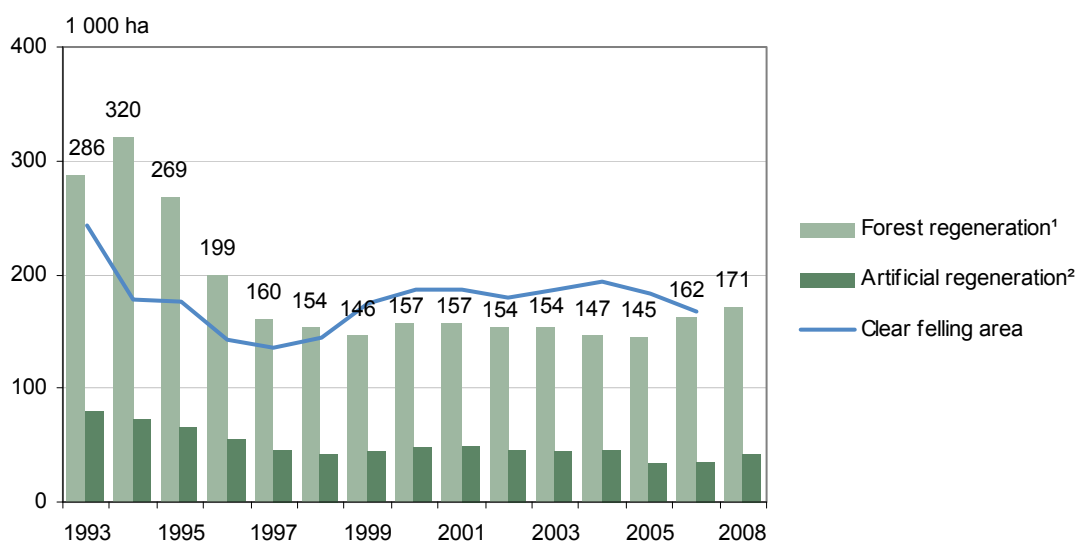


Source: Roslesinforg 2008a

**Fig. 2.2.** Allowable and actual cut of final fellings in Northwest Russia in 2007 (only forests administrated by the Federal Forest Service “Rosleshoz”).

### 3 Silviculture

Clear-felling has traditionally been the main method of final felling and it comprises about three fourths of total timber removals (Roslesinforg 2005, 2006, 2007, 2008b). In 1993–1998, the total forest-regeneration area was larger than the total clear-felling area. In 1999–2006, however, almost every fifth hectare of clear-felling was left without active forest regeneration measures (Fig. 3.1). In 1993–2006, on average, only every fourth hectare was artificially regenerated, as in the large northern regions (Komi, Arkhangelsk, Karelia, Vologda) the dominant forest regeneration method was assisted natural regeneration. Forest regeneration in Northwest Russian regions is presented on Map 5.10.



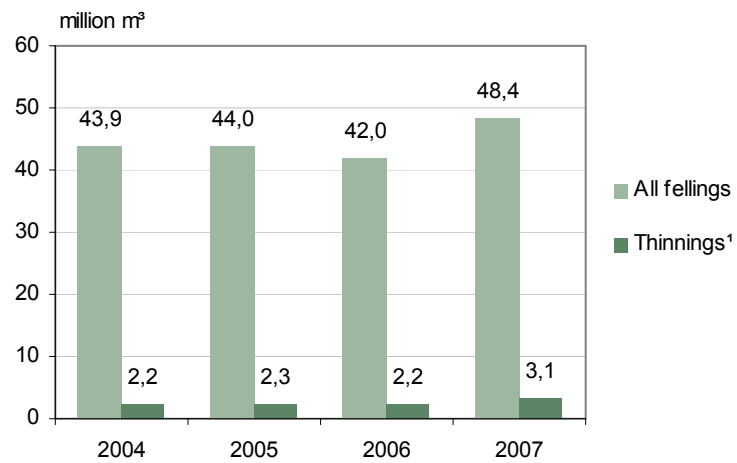
Sources: Roslesinforg 2005, 2006, 2007, 2008a

**Fig. 3.1.** Development of forest regeneration and clear felling area in Northwest Russia during 1993–2008 (only forests administrated by the Federal Forest Service “Rosleshoz”).

Thinnings of middle-aged and maturing stands are not common (Fig. 3.2.). The proportion of thinnings out of total timber removals has been only 5%. The reasons for the small share of thinning have been, among others, concentration on more productive final fellings, inappropriate wood harvesting technology for thinnings, an undeveloped forest-road network, and lack of demand for pulpwood in many regions. The importance and benefits of thinnings are, however, largely recognized, and it is expected that their amount will grow at least in the leased forest areas when forest management is intensified.

<sup>1</sup> Includes assisted natural and artificial regeneration. Assisted natural regeneration means natural regeneration of forest or other wooded land with deliberate human intervention aimed at enhancing the ability of desired species to regenerate.

<sup>2</sup> Artificial regeneration includes planting and seeding. Planting is mainly used, and the share of seeding was 12% in 2008.



Sources: Roslesinform 2005a, 2006, 2007, 2008a

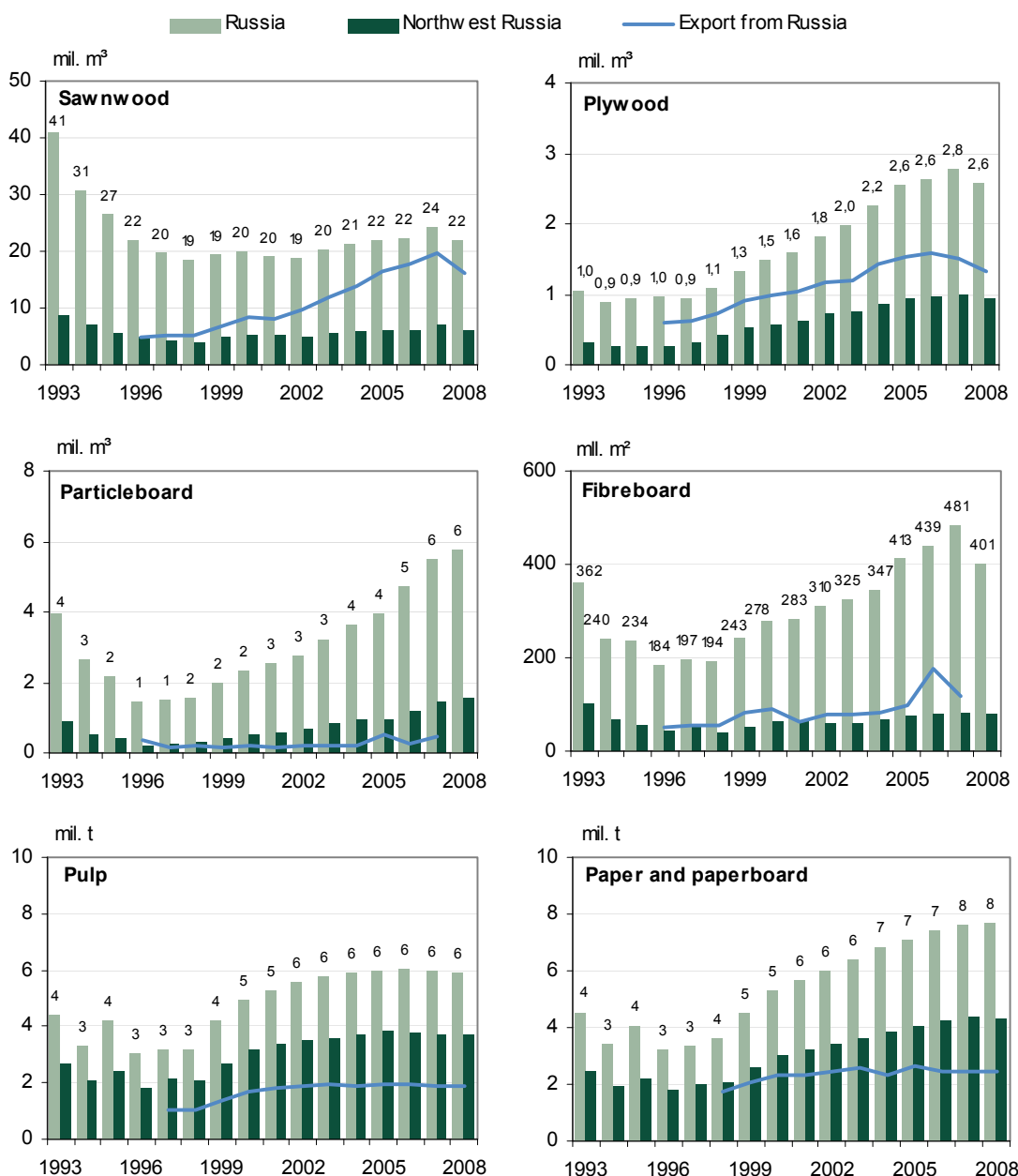
**Fig. 3.2.** Removals in all fellings and thinnings in Northwest Russia in 2004–2007 (only forests administrated by the Federal Forest Service “Rosleshoz”).

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<sup>1</sup> Prorezhvaniya, prohodnye rubki

## 4 Forest industry

During the last ten years the forest industry has been developing steadily in Russia as well as in Northwest Russia. Particle board production has grown strongly, having tripled. Other branches of forest industry have doubled their production, excluding the sawmill industry, whose growth has been more modest. The Russian forest industry is export oriented, as the majority of the produced sawnwood, half of the plywood, and one third of the pulp, paper, and paperboard are exported. The global economic crisis also hit the Russian forest sector at the end of 2008, when production amounts started to decrease (Fig. 4.1).



Year 2008 preliminary data

Amount of sawnwood exported converted from tons to m<sup>3</sup> using FAO conversion factor for coniferous sawnwood (1,82)

Sources: Karelijastat, Rosstat 2004, 2007, 2008, 2008a, 2008b, 2009, Federal Customs Service of Russia, Lesprom

Fig. 4.1. Production trends and exports of the main products of the Russian forest industry.

According to the Russian Statistics Service, production of forest products decreased considerably during the first half of 2009 compared to the previous year. Decreases in production were 19% for sawnwood, 32% for plywood, 39% for fibreboard, 31% for particle board, 9% for paper, and 14% for paperboard (Rosstat 2009a).

The most important producers of forest products (sawnwood, plywood, wood-based boards, pulp, paper, paperboard), production and consumption of birch and aspen, and producers of forest-related machinery, wood pellets, and brickets in Northwest Russia are presented on Maps 5.12–5.21 and in Appendix 1.

The wood-products industry forms 4% of the total industrial production in Northwest Russia and the pulp and paper industry, 8%, and these shares are the highest in comparison with the other federal districts of Russia (Rosstat 2008a). For the Arkhangelsk region and Karelia, the forest industry's share of total production is over 50% (Table 4.1). In Northwest Russia, the Arkhangelsk region is the most important producer of sawnwood, pulp, and paperboard. Karelia leads in paper production, Komi in plywood and in fibreboard, and Novgorod in particle board production. Maps of production amounts in Northwest Russian regions are presented in Chapter 5.

**Table 4.1.** Share of the forest industry in total industrial production in Northwest Russia in 2007.

Region	Forest industry total (incl. printing)	Wood products industry	Pulp and paper industry, printing*
	%		
Northwest Russia	12	4	8
Arkhangelsk	62	19	43
Karelia	56	14	42
Komi	33	12	21
Leningrad	14	3	11
Murmansk	1	0	1
Novgorod	19	13	6
Pskov	4	2	2
St. Petersburg	5	2	3
Vologda	5	4	1

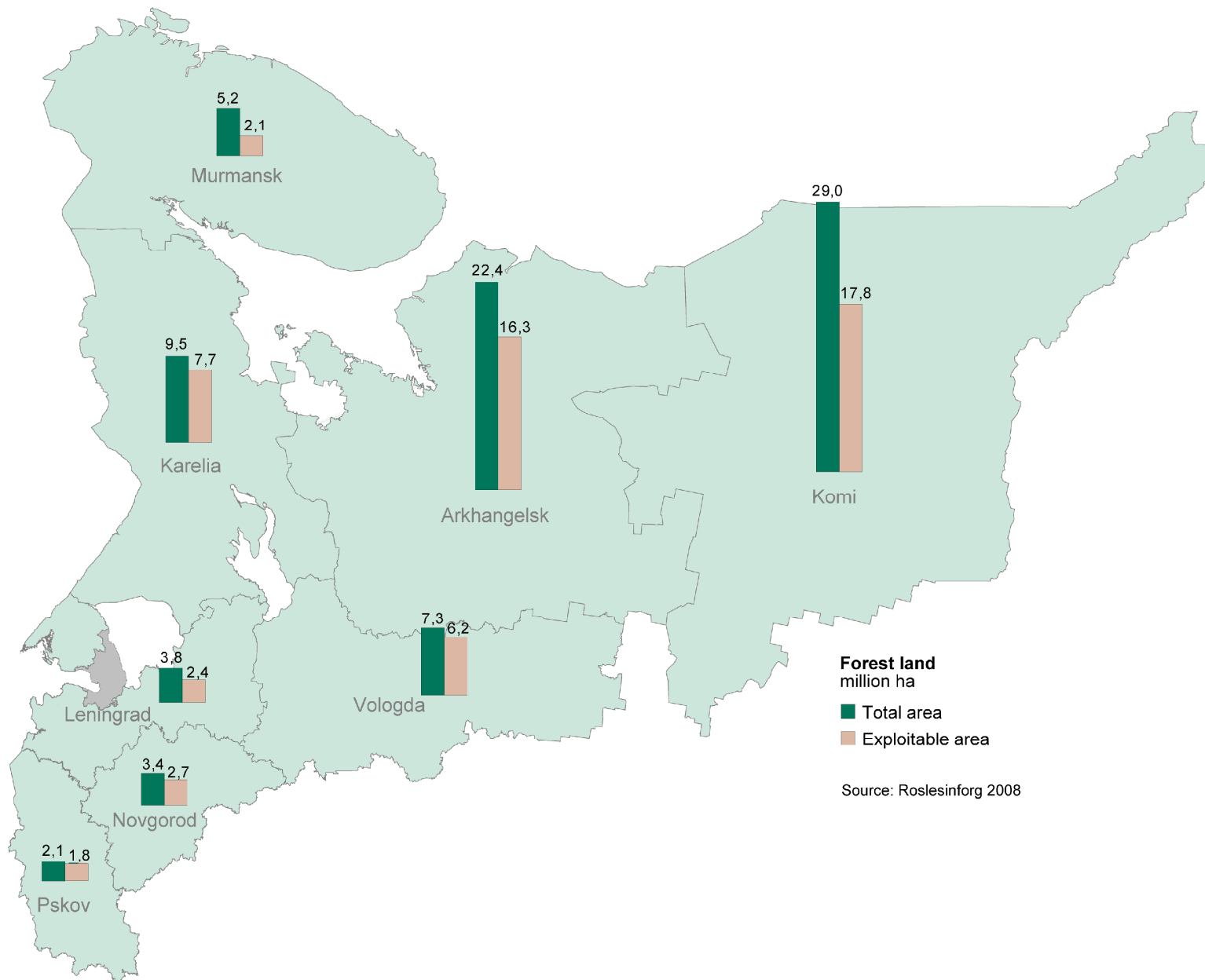
Source: Rosstat 2008a.

\* Printing includes typography products (newspapers, books, magazines)

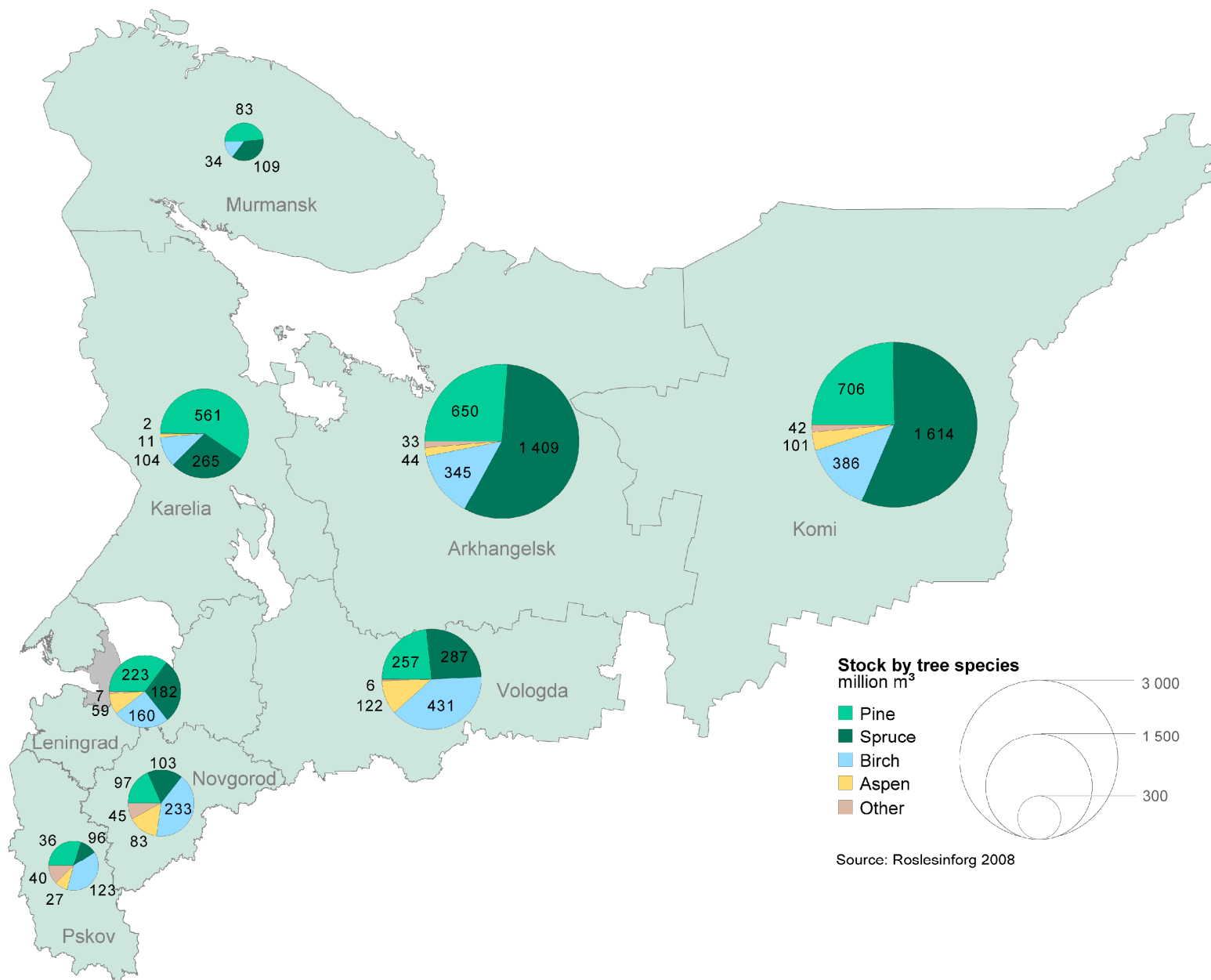
The status of the forest industry has been at the centre of political discussions in the recent years in Russia (Strategiya razvitiya... 2008). The forest industry is rather undeveloped given the vastness of the resources, the degree of processing is low, production facilities are outdated, and only minor investments have been made. The aim, set at the highest governmental level, for Russia to change from a roundwood exporter into a producer of high value-added products. However, the political measures, such as privileges for investors and regulation of customs duties, have not yet brought visible result. Despite the changes in the operational conditions, there are still many factors in the business environment impeding investment decisions: inadequate infrastructure, unstable institutional environment, and political risk, to mention but a few (Karjalainen, T. et al. 2007).

## 5 Maps

### 5.1 Forest area

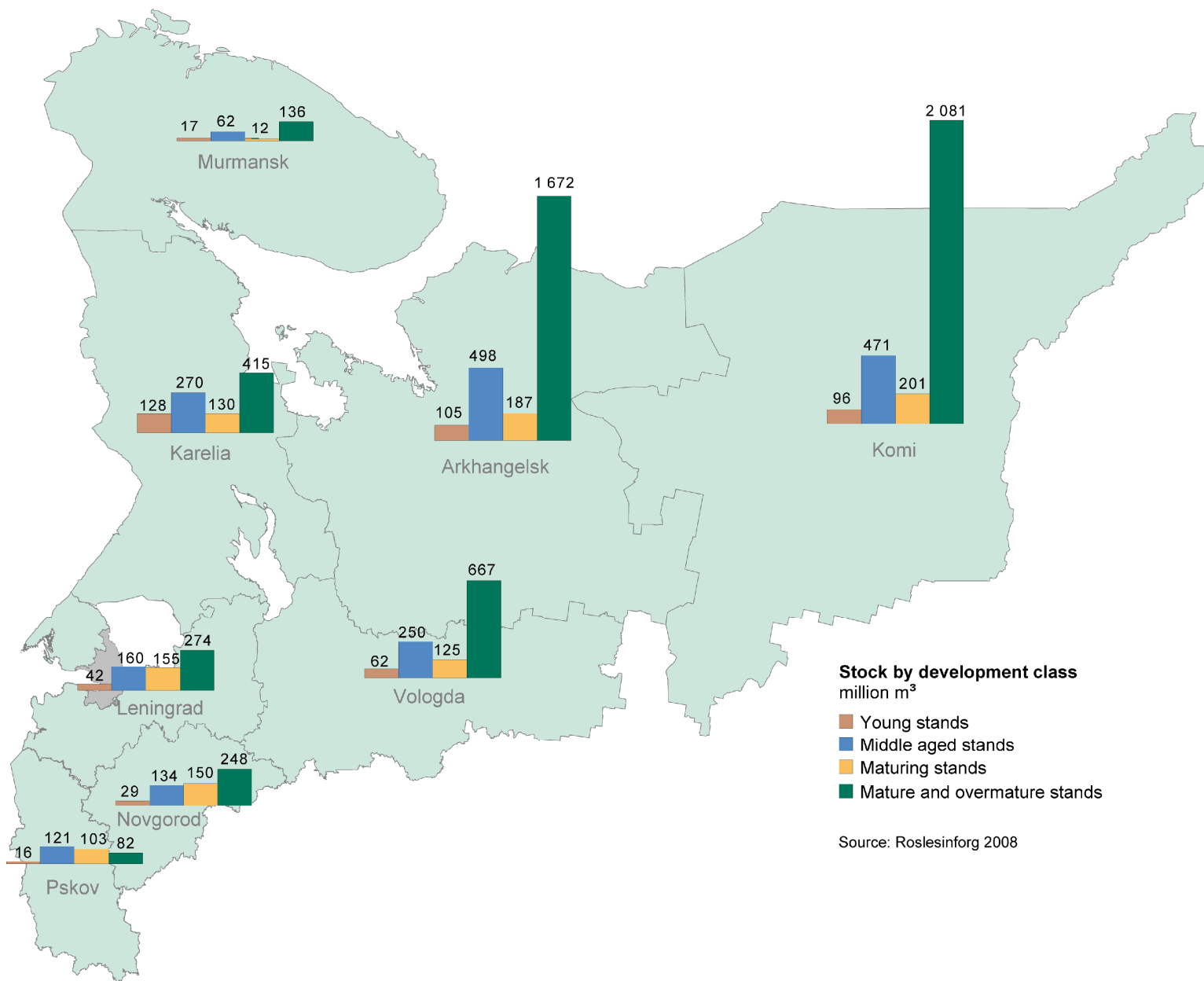


## 5.2 Main tree species

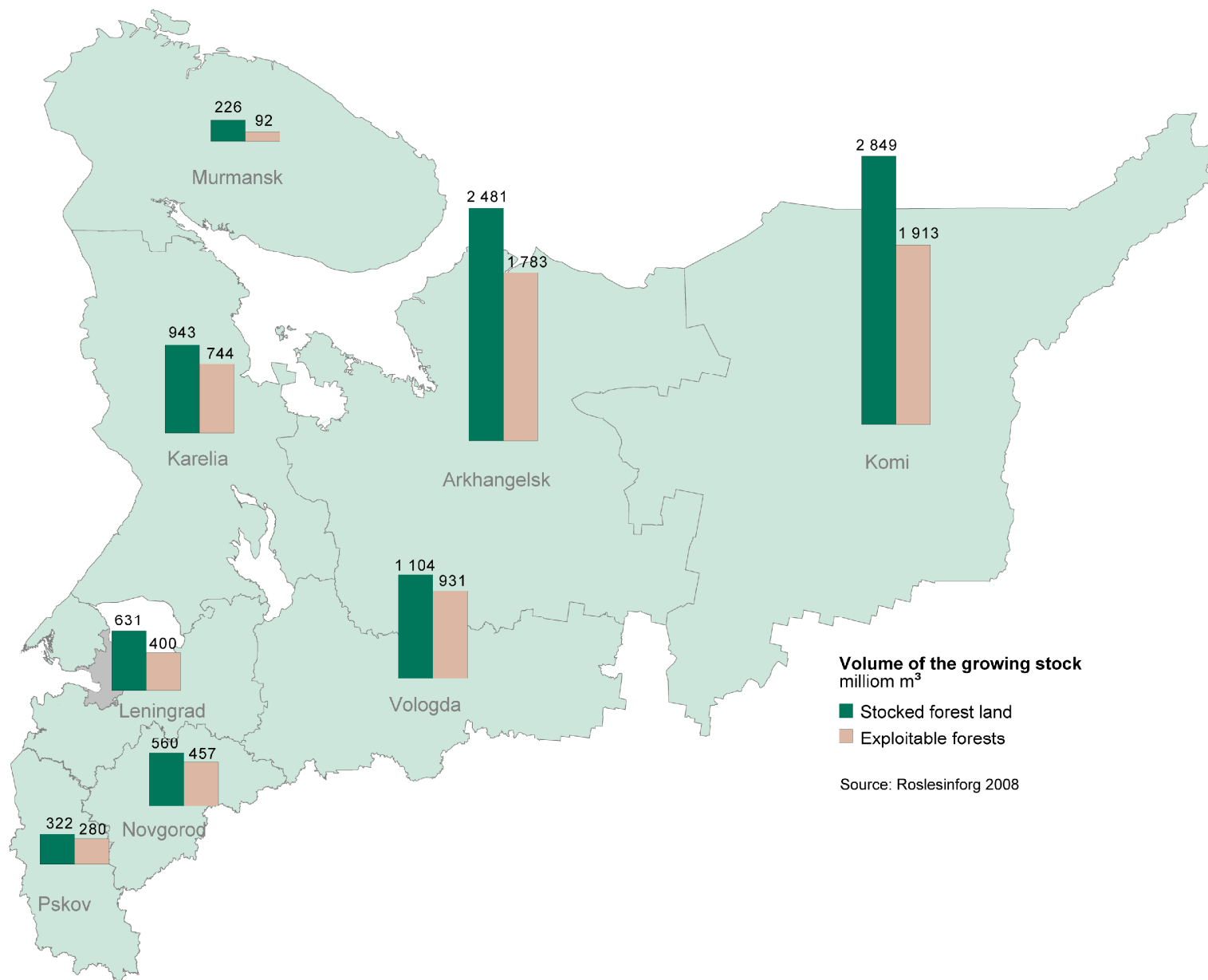




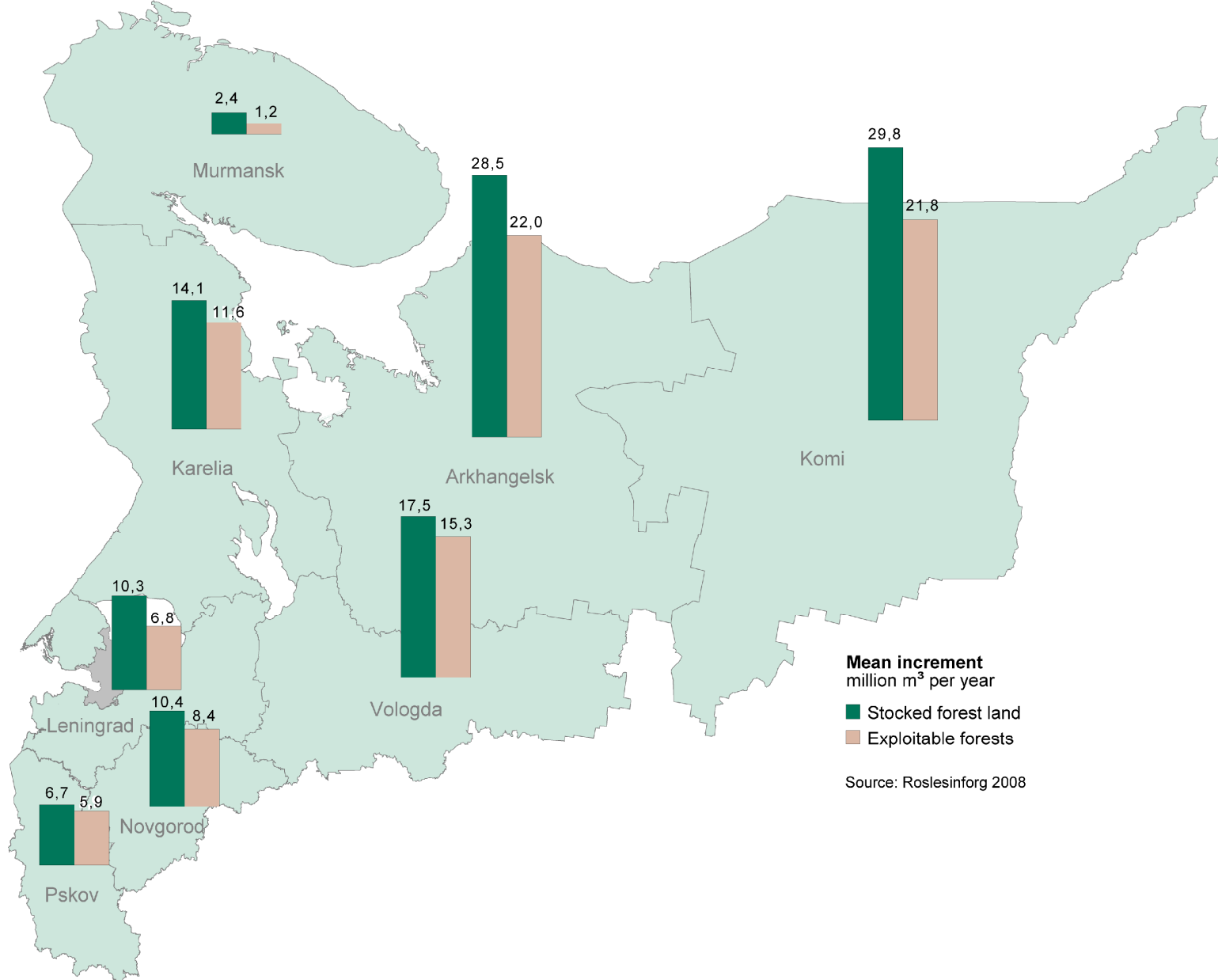
### 5.3 Development classes



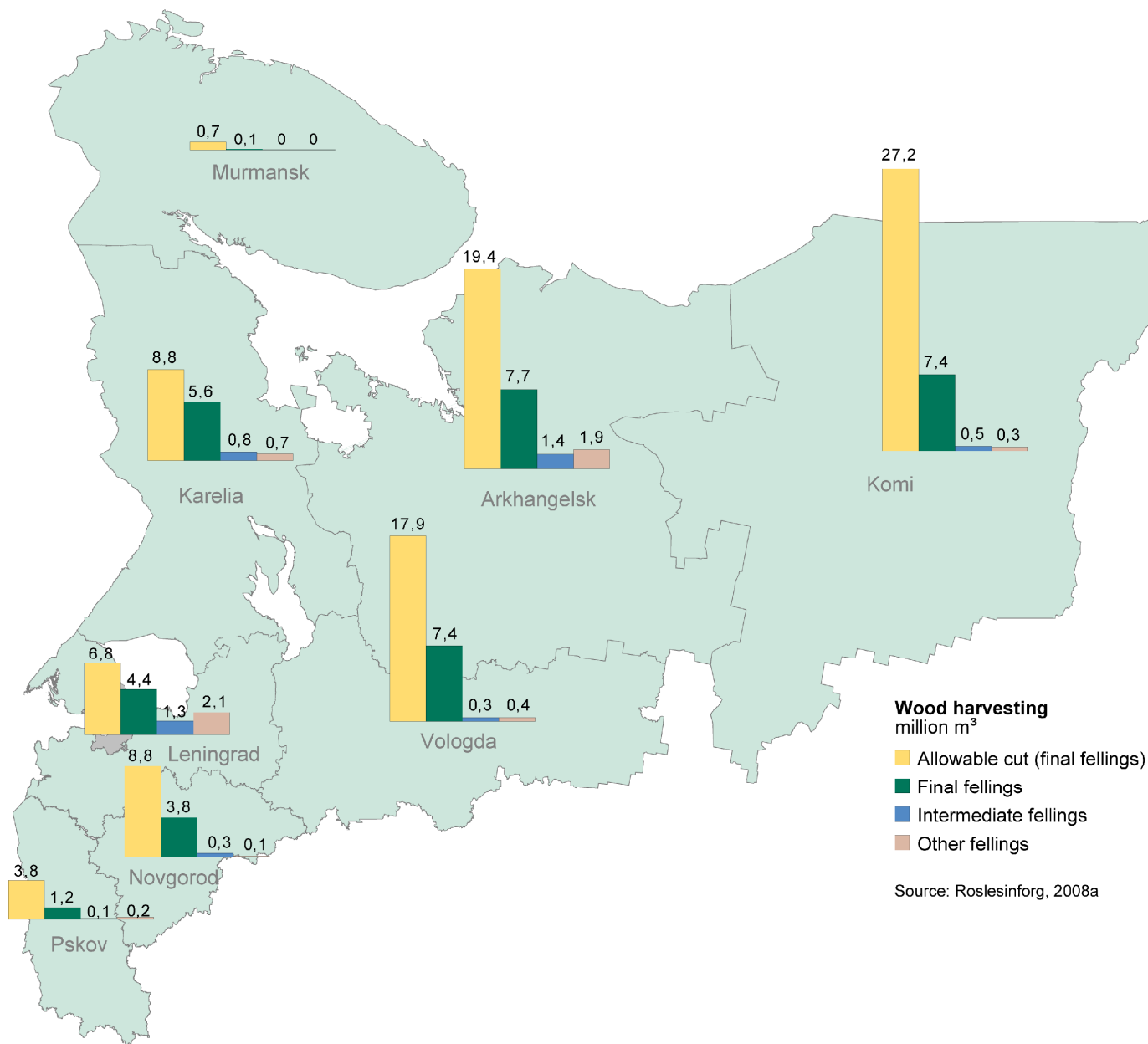
## 5.4 Volume of the growing stock



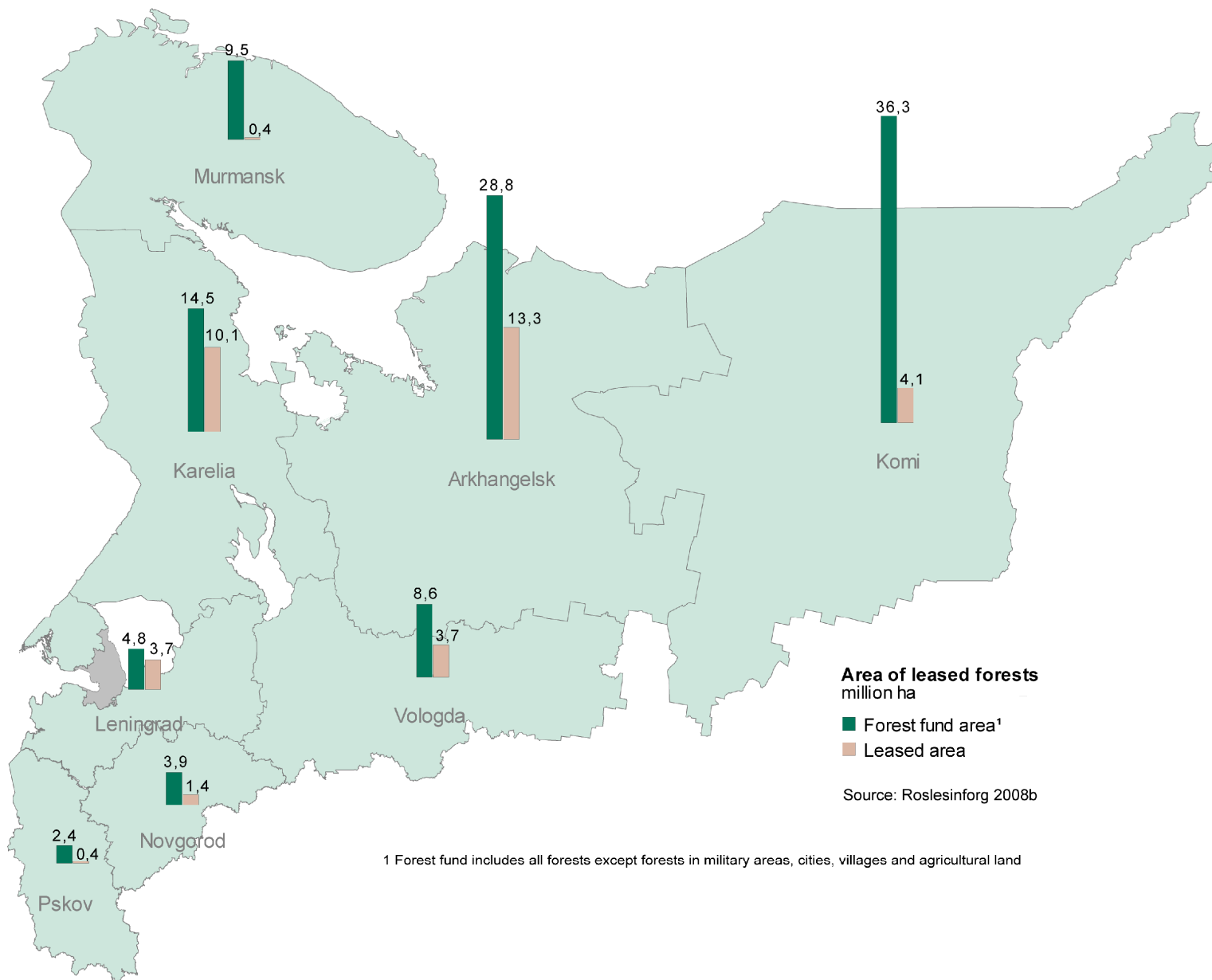
## 5.5 Increment of the growing stock



## 5.6 Allowable and actual cut in 2007



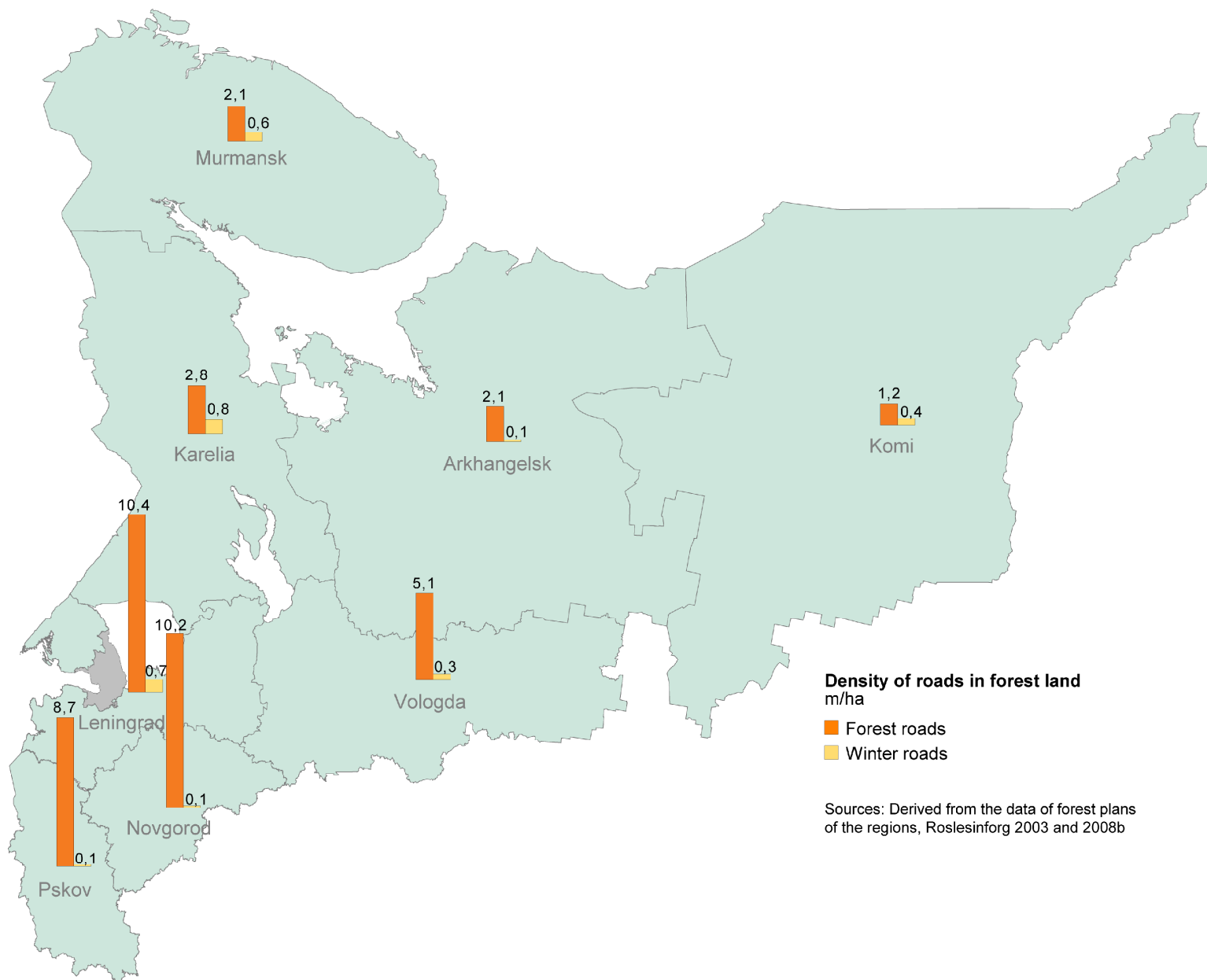
### 5.7 Area of leased forests, 1.1.2008



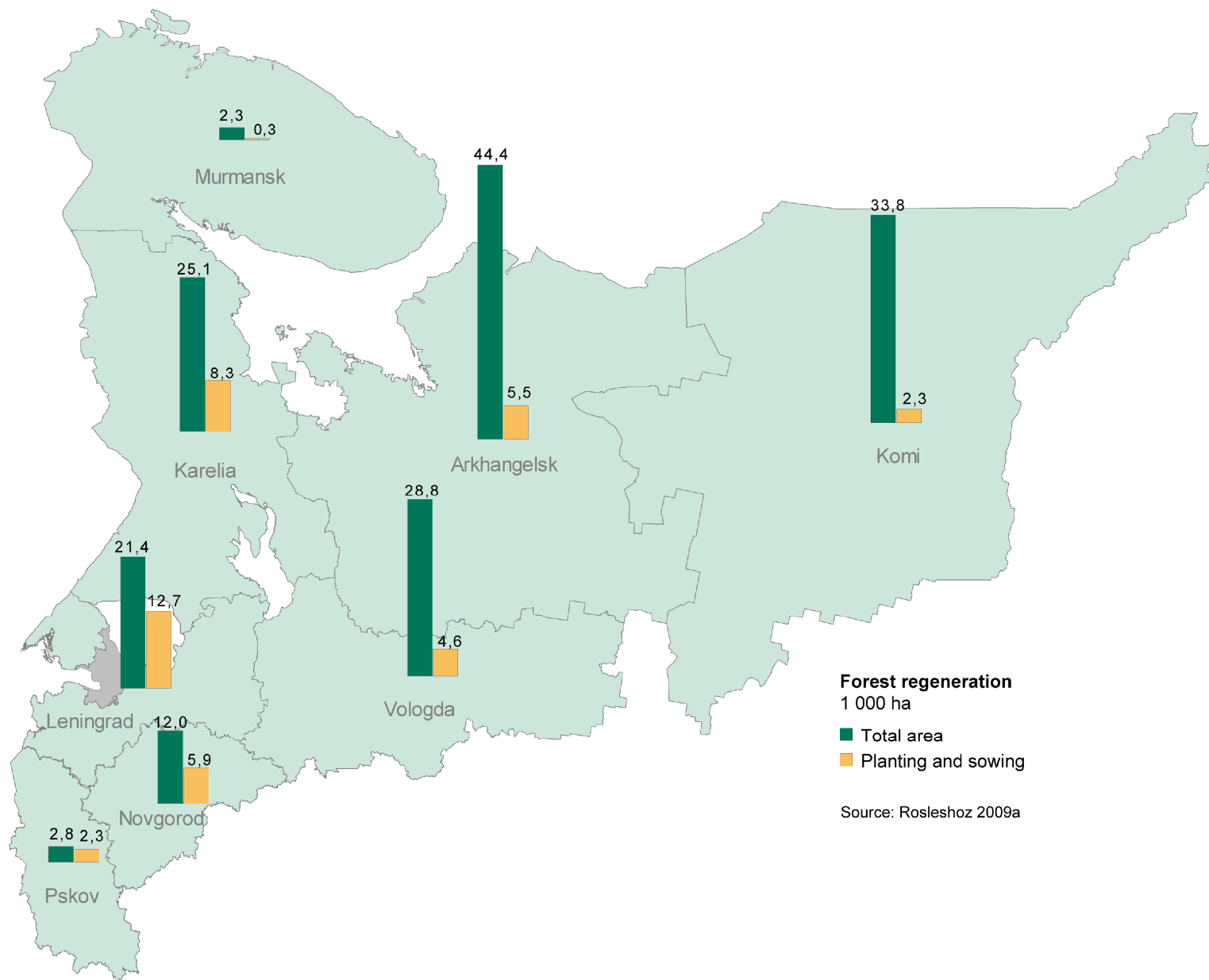
## 5.8 Cut in leased forests in 2007



## 5.9 Forest road density

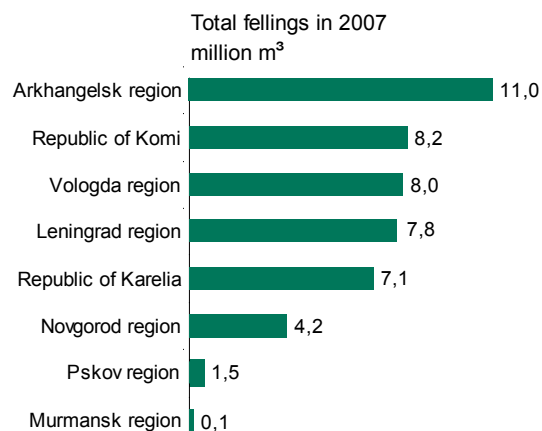


## 5.10 Forest regeneration in 2008

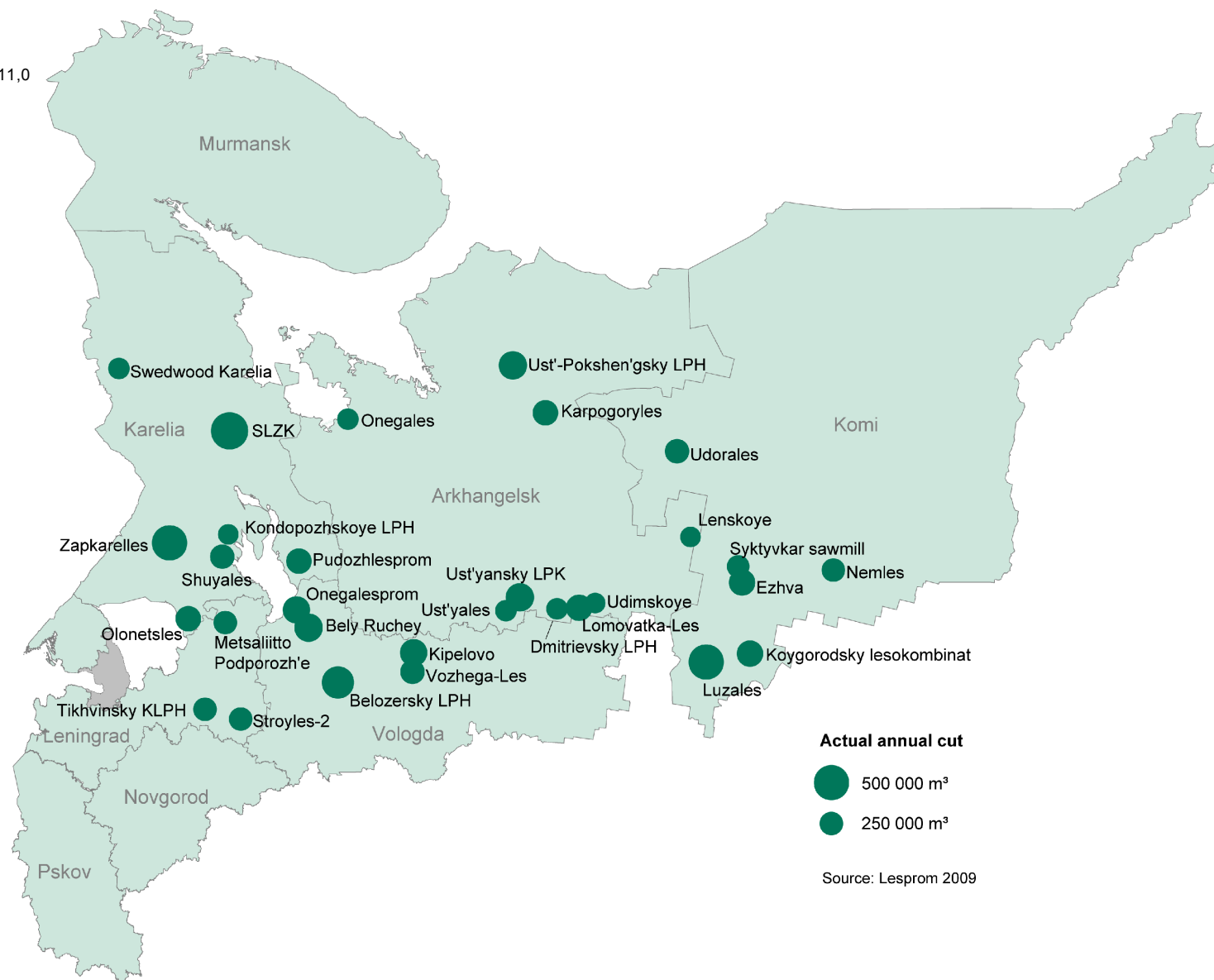




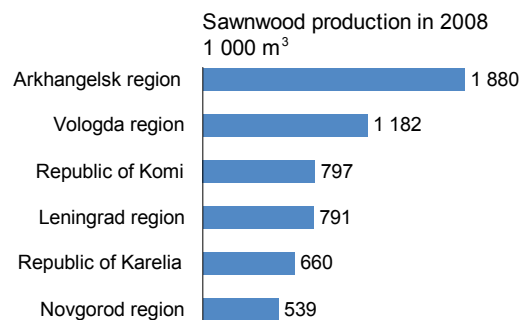
### 5.11 Fellings and the biggest logging companies



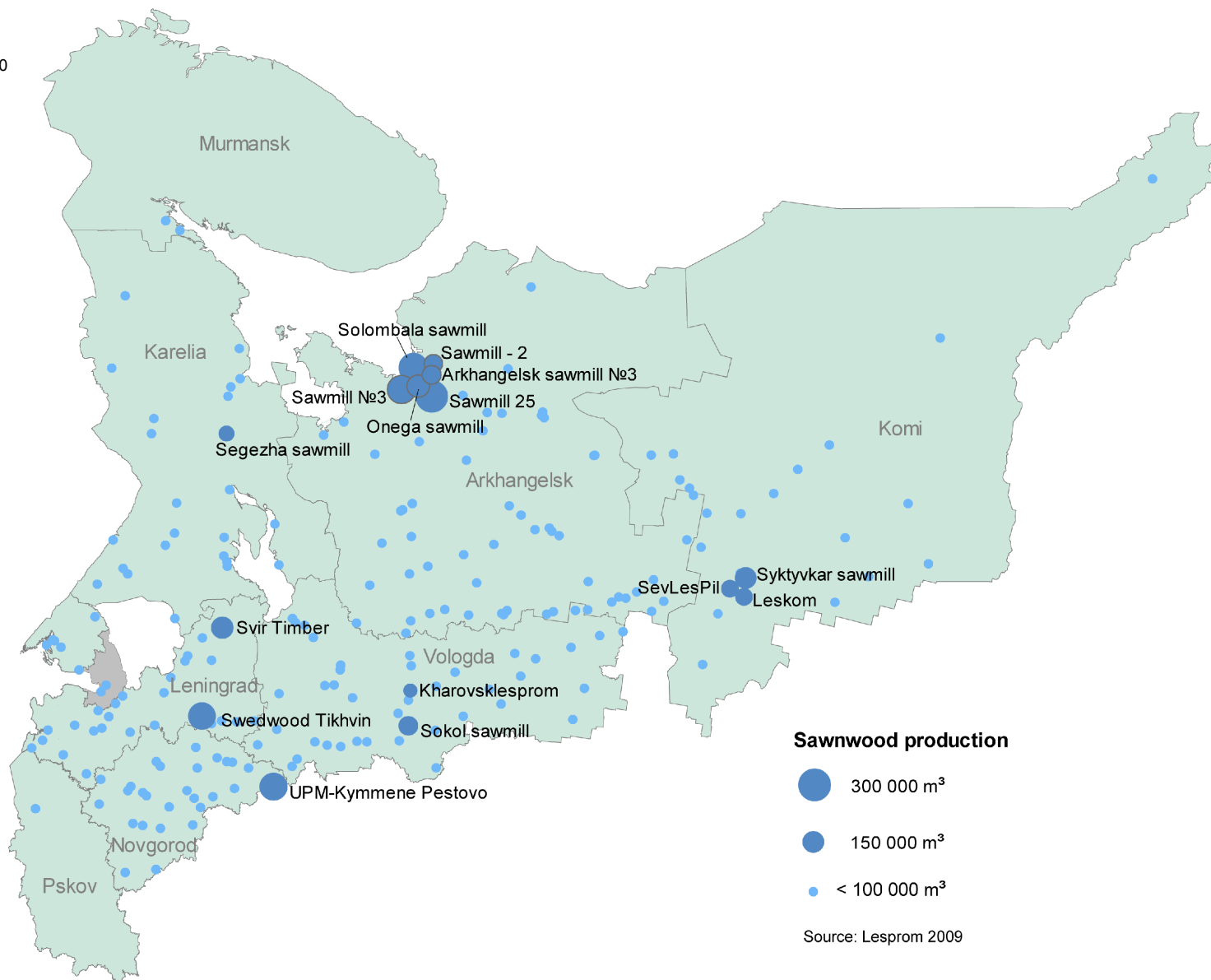
Source: Roslesinforg 2008a



## 5.12 Sawnwood production and sawmills



Sources: Rosstat 2009, Lesprom

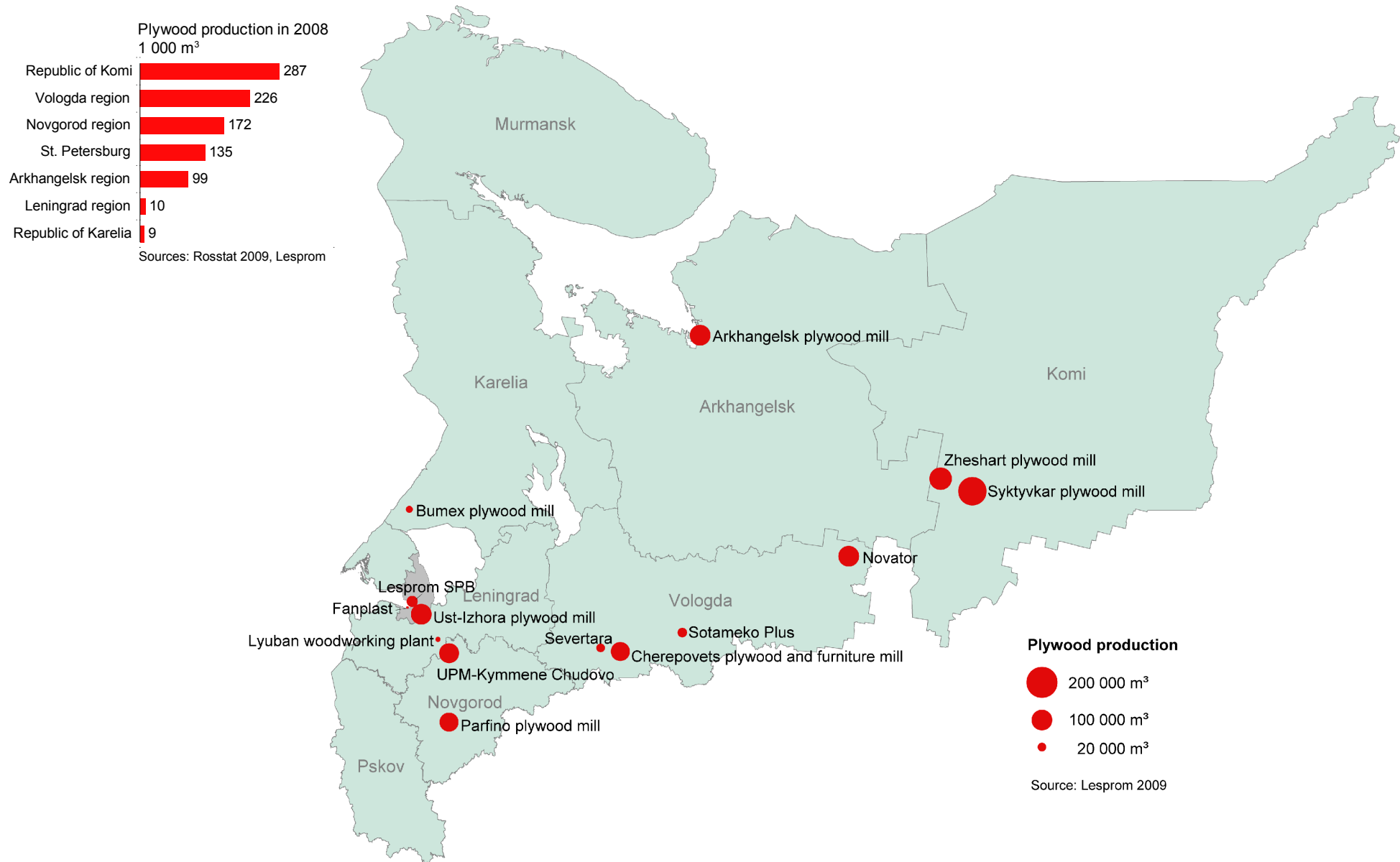


### Sawnwood production

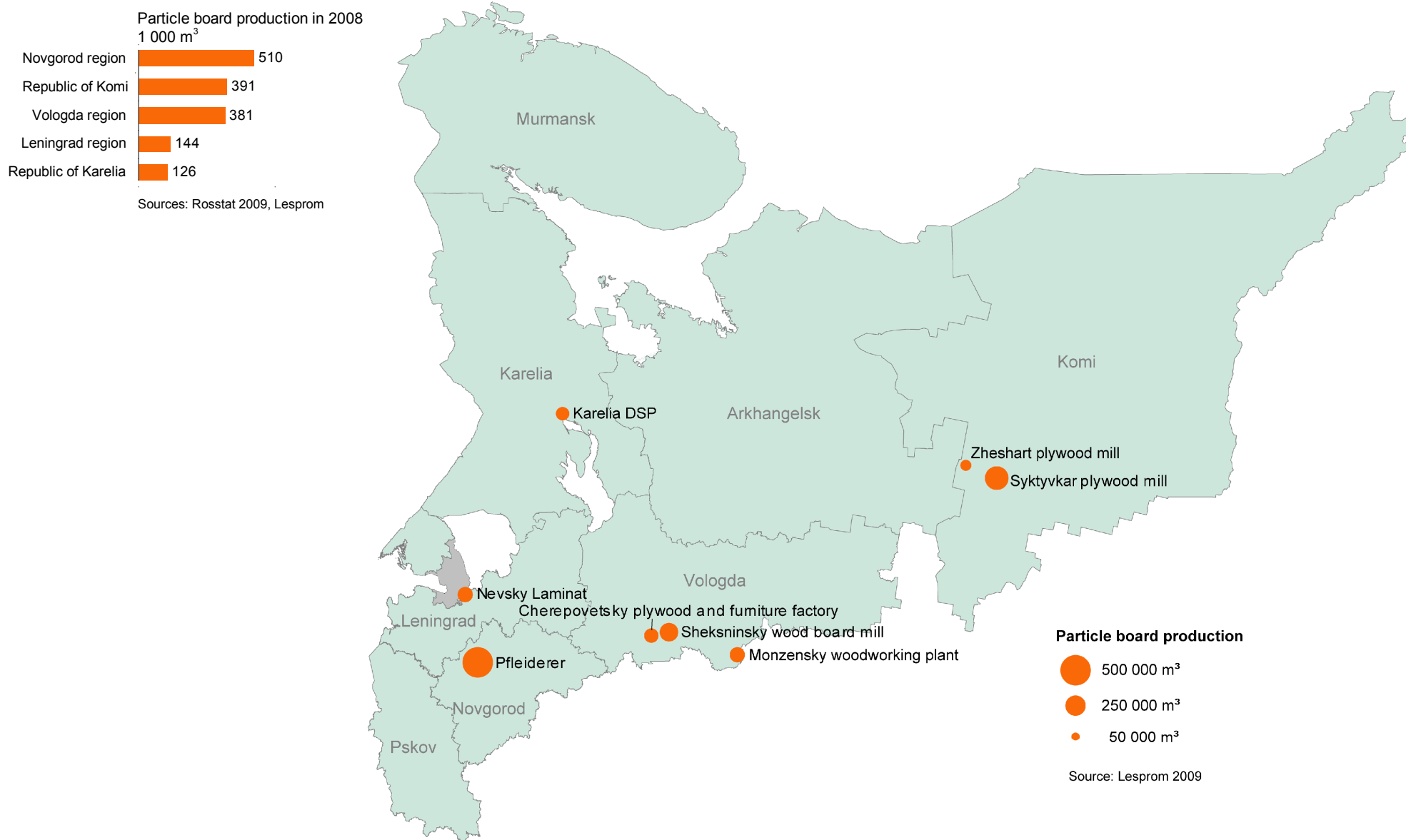
- 300 000 m<sup>3</sup>
- 150 000 m<sup>3</sup>
- < 100 000 m<sup>3</sup>

Source: Lesprom 2009

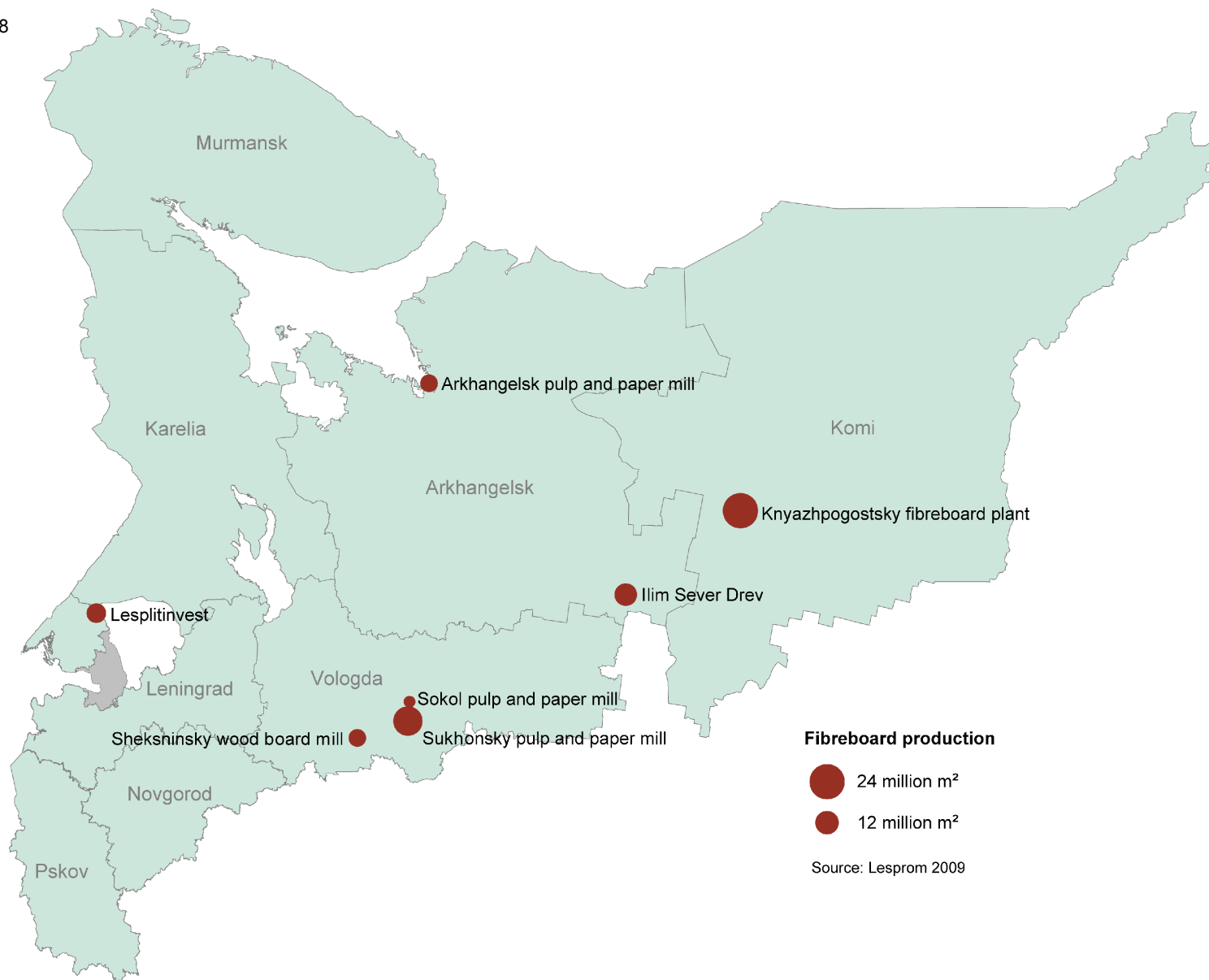
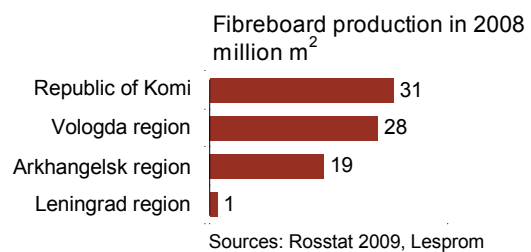
### 5.13 Plywood production and producers



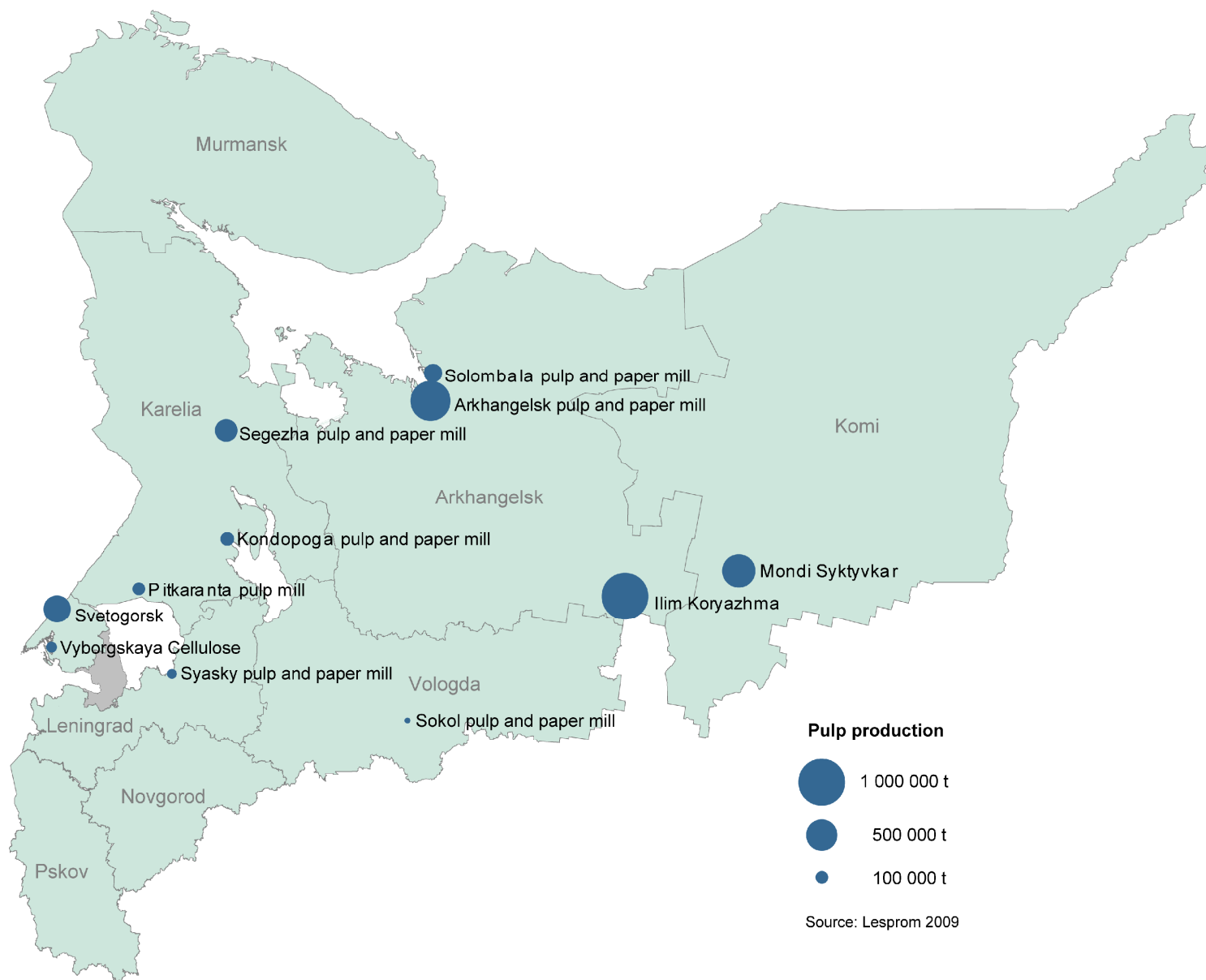
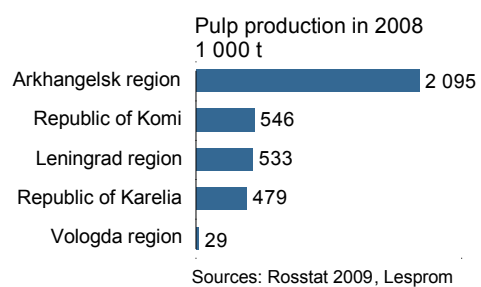
## 5.14 Particle board production and producers



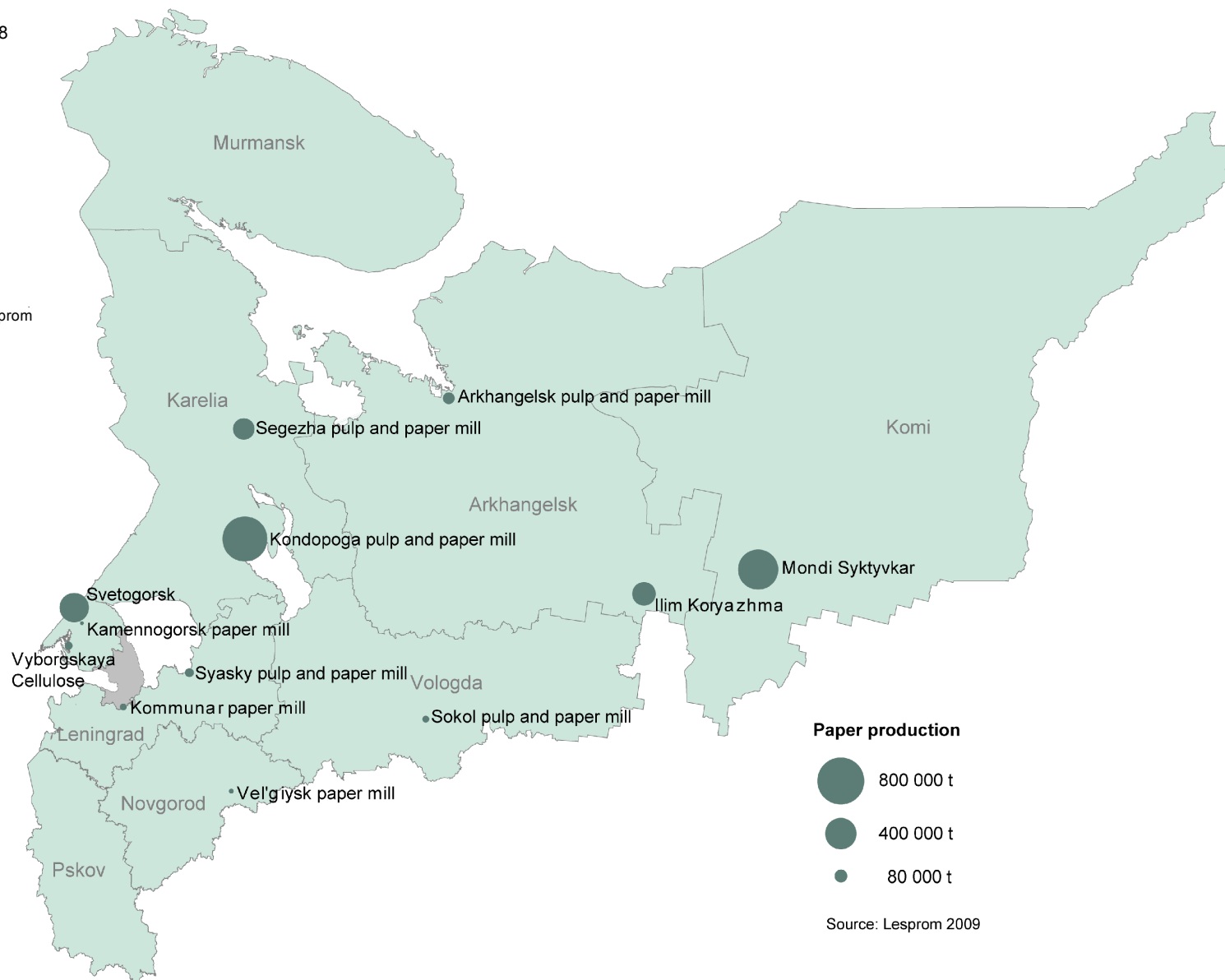
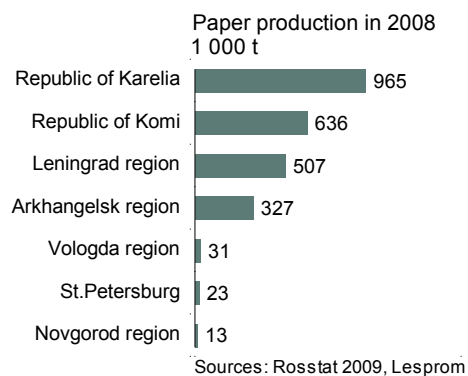
### 5.15 Fibreboard production and producers



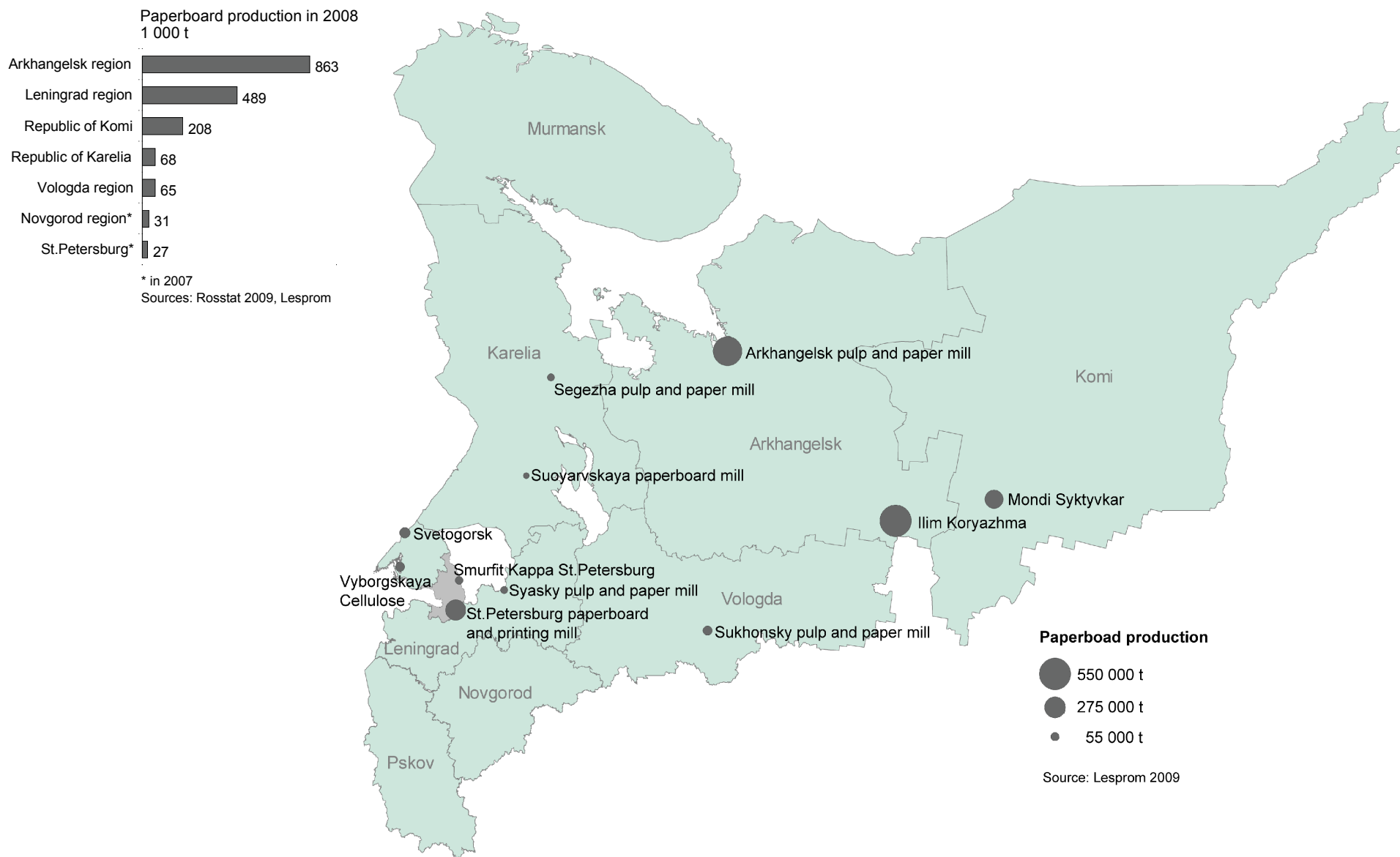
## 5.16 Pulp production and pulp mills



## 5.17 Paper production and paper mills

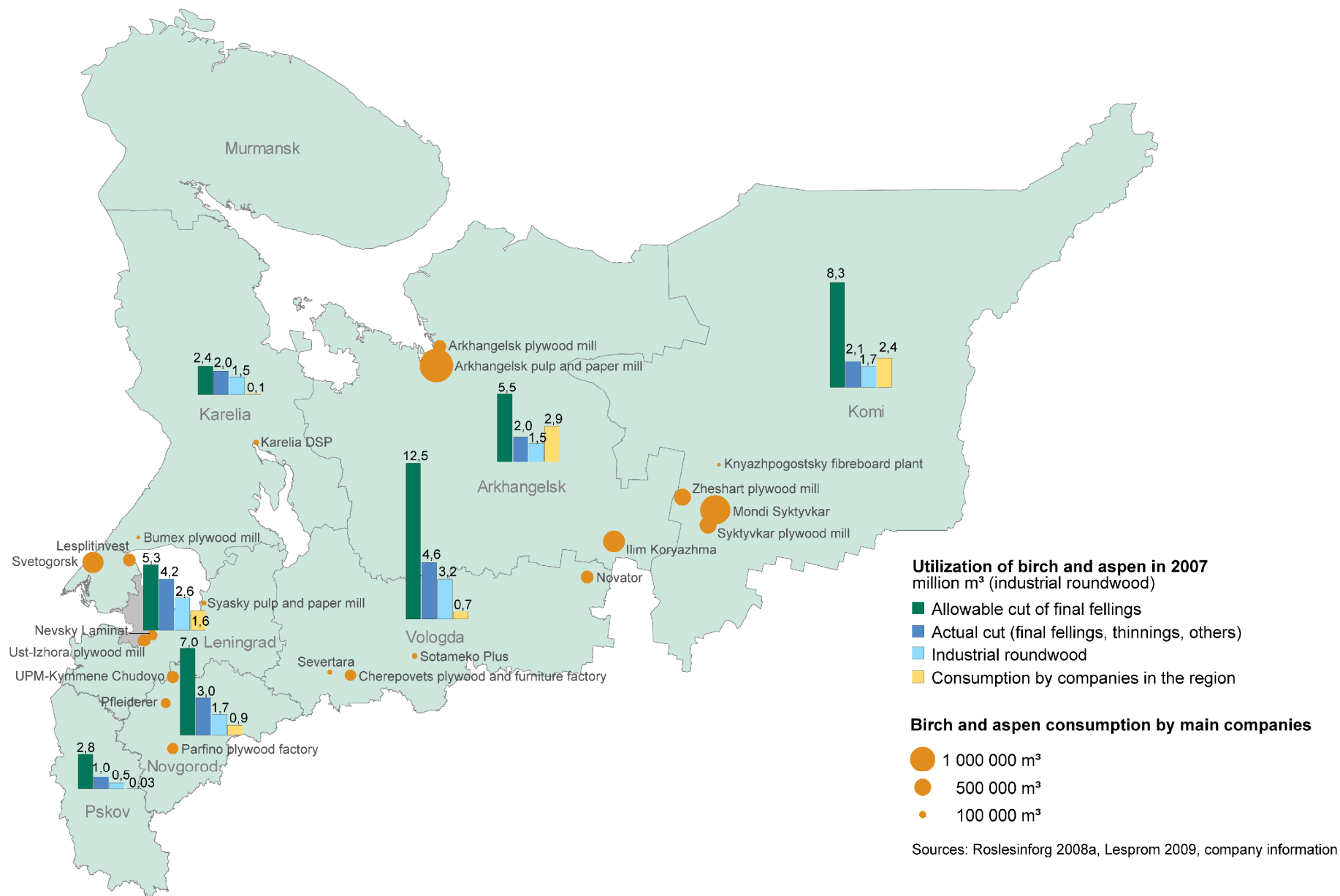


## 5.18 Paperboard production and paperboard mills

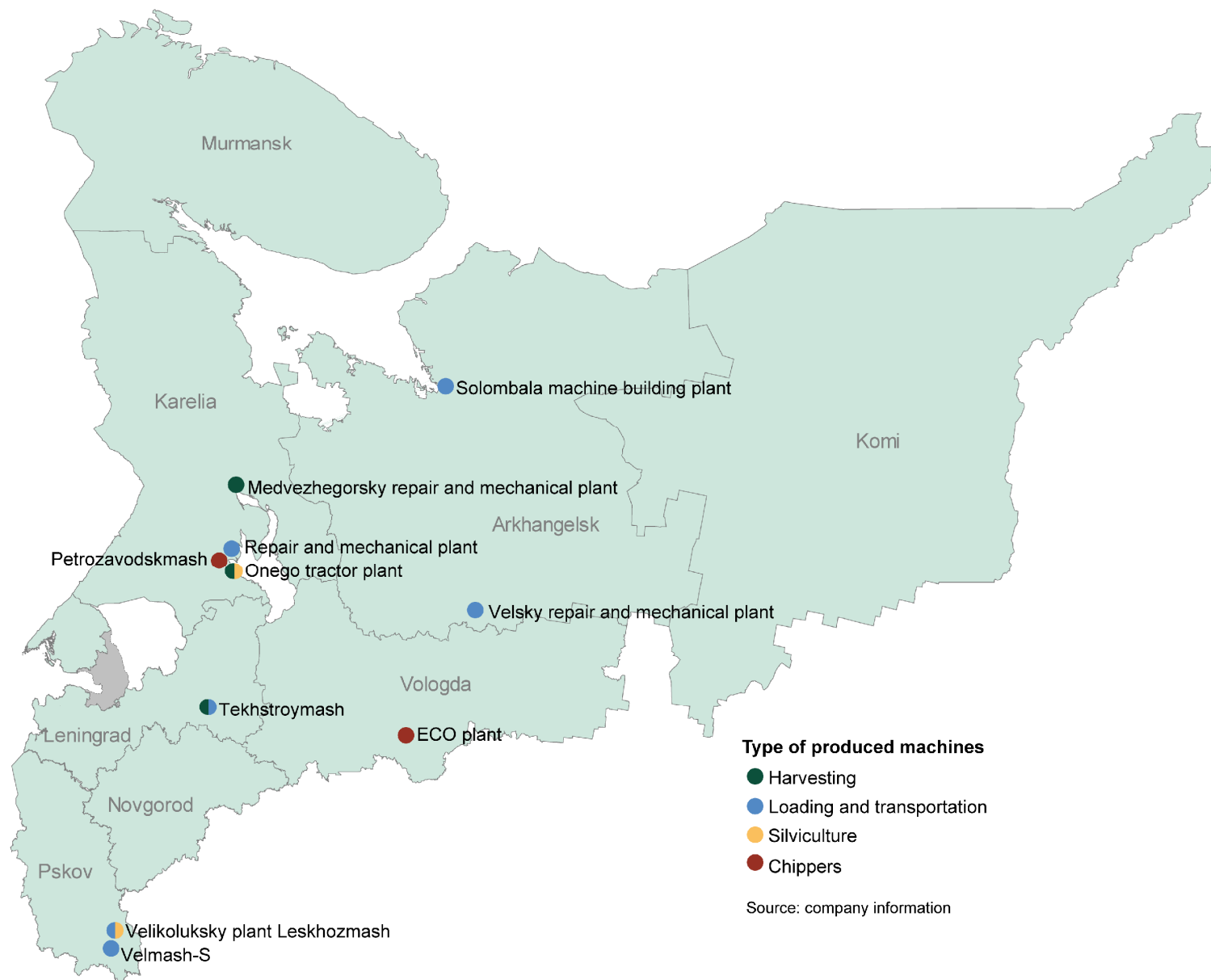




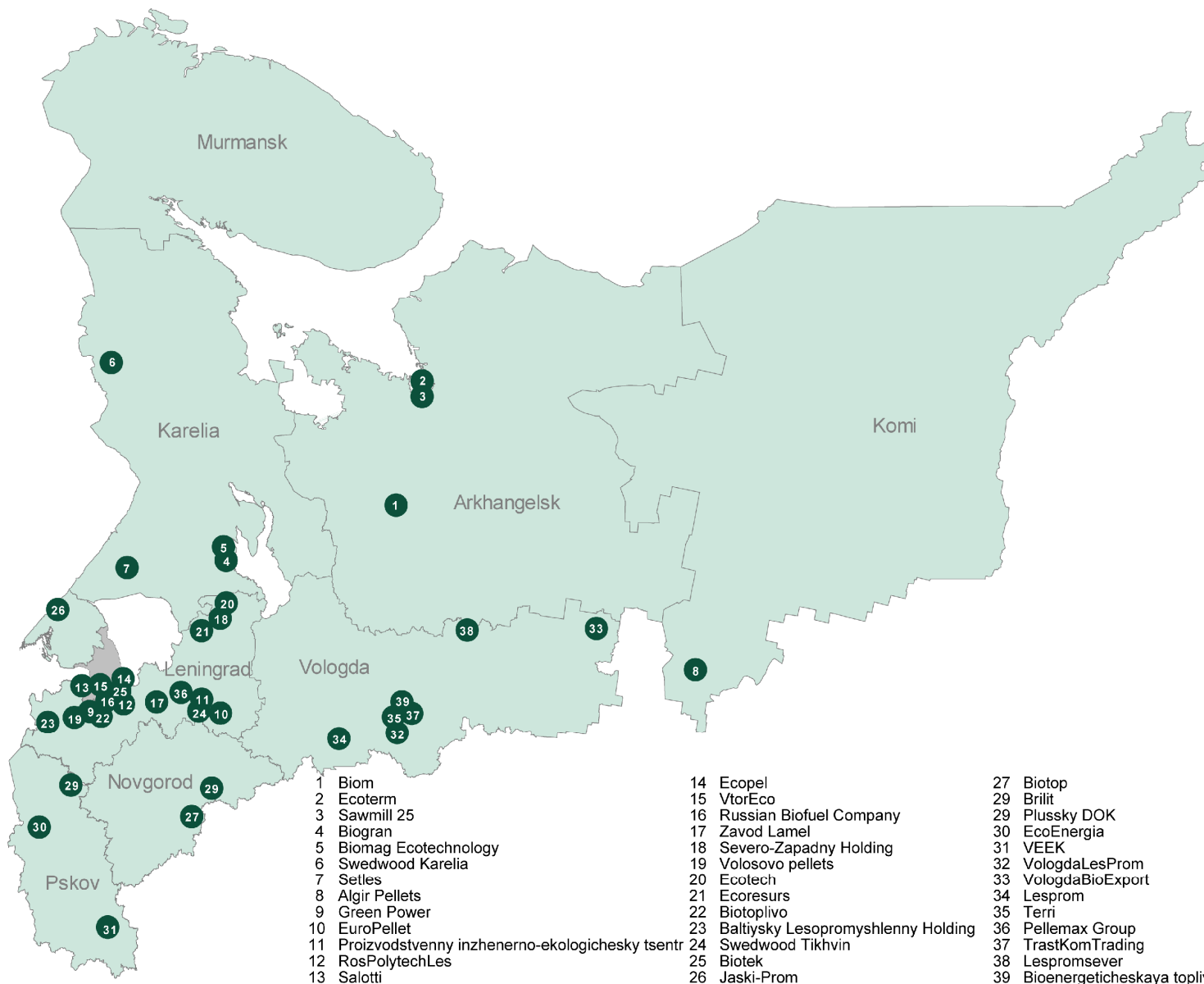
## 5.19 Utilization of birch and aspen



## 5.20 Machine manufacturers in the forest sector



## 5.21 Wood pellet and briquet producers



Sources: [www.wood-pellets.com](http://www.wood-pellets.com), company information

## Annex 1 Companies on the maps

Logging companies	Name in Russian	Region	Internet
Belozersky LPH (lespromkhoz)	Белозерский леспромхоз (ЛПХ), ОАО	Vologda	<a href="http://www.cherles.com">www.cherles.com</a>
Bely Ruchey	Белый ручей, ЗАО	Vologda	
Dmitrievsky LPH (lespromkhoz)	Дмитриевский леспромхоз (ЛПХ), ОАО	Arkhangelsk	<a href="http://www.titangroup.ru">www.titangroup.ru</a>
Ezhva	Эжва, ООО	Komi	
Karpogoryles	Карпогорылес, ООО	Arkhangelsk	<a href="http://www.titangroup.ru">www.titangroup.ru</a>
Kipelovo	Лесопромышленный концерн (ЛПК) Кипелово, ОАО	Vologda	<a href="http://www.nationaltimber.com">www.nationaltimber.com</a> <a href="http://www.investlesprom.ru">www.investlesprom.ru</a>
Kondopozhskoye LPH (lespromkhoz)	Кондопожское лесопромышленное хозяйство (ЛПХ), ОАО	Karelia	
Koygorodsky lesokombinat	Койгородский лесокombинат, ООО	Komi	
Lenskoye (Lenskoye LP KTсBK*)	Ленское лесное предприятие Котласского ЦБК (ЛП КЦБК), ООО	Arkhangelsk	
Lomovatka-Les	Ломоватка-Лес, ООО	Arkhangelsk Vologda	<a href="http://www.volwood.ru">www.volwood.ru</a>
Luzales	Лузалес, ООО	Komi	<a href="http://www.luzales.ru">www.luzales.ru</a>
Metsäliitto Podporozh'e	Метсалиitto Подпорожье, ООО	Leningrad	<a href="http://www.metsaliitto.com">www.metsaliitto.com</a>
Nemles	Немлес, ООО	Komi	
Olonetsles	Олонецлес, ОАО	Karelia	
Onegales	Производственно- лесозаготовительное объединение (ПЛО) Онегалес, ЗАО	Arkhangelsk	<a href="http://www.investlesprom.ru">www.investlesprom.ru</a>
Onegalesprom	Онегалеспром, ЗАО	Vologda	<a href="http://www.volwood.ru">www.volwood.ru</a>
Pudozhlesprom	Пудожлеспром, ООО	Karelia	
Shuyales	Шуялес, ЗАО	Karelia	<a href="http://www.shuyales.ru">www.shuyales.ru</a>
SLZK (Severnaya lesozagotovitel'naya kompaniya)	Северная лесозаготовительная компания (СЛЗК), ООО	Karelia	<a href="http://www.investlesprom.ru">www.investlesprom.ru</a>
Stroyles-2	Стройлес-2, ООО	Leningrad	
SwedwoodKarelia	Сведвуд Карелия, ООО	Karelia	<a href="http://www.ikea.com">www.ikea.com</a>
Syktvykar sawmill	Сыктывкарский лесопильно- деревообрабатывающий комбинат (ЛДК), ОАО	Komi	
Tikhvinsky KLPH (kompleksny lespromkhoz)	Тихвинский комплексный леспромхоз (КЛПХ), ЗАО	Leningrad	<a href="http://www.upm-kymmene.com">www.upm-kymmene.com</a>
Udimskoye (Udimskoye LP KTсBK*)	Удимское лесное предприятие Котласского ЦБК (ЛП КЦБК), ОАО	Arkhangelsk	<a href="http://www.ilimpulp.ru">www.ilimpulp.ru</a>
Udorales	Удоралес, ООО	Komi	
Ust'-Pokshen'gsky LPH (lespromkhoz)	Усть-Покшеньгский ЛПХ, ОАО	Arkhangelsk	<a href="http://www.titangroup.ru">www.titangroup.ru</a>
Ust'yales	Устьялес, ОАО	Arkhangelsk	<a href="http://www.nationaltimber.com">www.nationaltimber.com</a> <a href="http://www.investlesprom.ru">www.investlesprom.ru</a>
Ust'yansky LPK (lesopromyshlenny kompleks)	Устьянский лесопромышленный комплекс (ЛПК), ООО	Arkhangelsk	
Vozhega-les	Вожега-лес, ООО	Vologda	
Zapkarelles	Запкареллес, АО	Karelia	<a href="http://www.zapkarelles.ru">www.zapkarelles.ru</a>

\* LP KTсBK=forestry enterprise of the Kotlas pulp and paper mill

<b>Sawmills</b>			
Arkhangelsk sawmill № 3	Архангельский лесопильно-деревообрабатывающий комбинат (ЛДК) № 3, ОАО	Arkhangelsk	
Kharovsklesprom	Харовсклеспром, ООО	Vologda	<a href="http://www.volwood.ru">www.volwood.ru</a>
Leskom	Леском, ЗАО	Komi	
Onega sawmill	Онежский лесопильно-деревообрабатывающий комбинат, ОАО	Arkhangelsk	<a href="http://www.investlesprom.ru">www.investlesprom.ru</a>
Sawmill - 2	Лесозавод-2, ОАО	Arkhangelsk	<a href="http://www.lesozavod2.ru">www.lesozavod2.ru</a>
Sawmill 25	Лесозавод 25, ЗАО	Arkhangelsk	<a href="http://www.sawmill25.ru">www.sawmill25.ru</a>
Sawmill № 3	Лесозавод № 3, ОАО	Arkhangelsk	<a href="http://www.sawmill3.ru">www.sawmill3.ru</a>
Segezha sawmill	Лесопильно-деревообрабатывающий комбинат (ЛДК) Сегежский, ОАО	Karelia	<a href="http://www.scbk.ru/sldk">www.scbk.ru/sldk</a> <a href="http://www.investlesprom.ru">www.investlesprom.ru</a>
SevLesPil	СевЛесПил, ООО	Komi	
Sokol sawmill	Сокольский дерево-обрабатывающий комбинат (ДОК), ОАО	Vologda	<a href="http://www.sokoldok.ru">www.sokoldok.ru</a> <a href="http://www.nationaltimber.com">www.nationaltimber.com</a> <a href="http://www.investlesprom.ru">www.investlesprom.ru</a>
Solombala sawmill	Соломбальский лесопильно-деревообрабатывающий комбинат (ЛДК), ОАО	Arkhangelsk	<a href="http://www.solombala.com">www.solombala.com</a>
Svir Timber	СвирьТимбер, ООО	Leningrad	<a href="http://www.metsabotnia.com">www.metsabotnia.com</a>
Swedwood Tikhvin	Сведвуд Тихвин, ООО	Leningrad	<a href="http://www.ikea.com">www.ikea.com</a>
Syktvykar sawmill	Сыктывкарский лесопильно-деревообрабатывающий комбинат (ЛДК), ОАО	Komi	
UPM-Kymmene Pestovo	ЮПМ-Кюммене Пестово, ООО	Novgorod	<a href="http://www.upm-kymmene.com">www.upm-kymmene.com</a>
<b>Plywood producers</b>			
Arkhangelsk plywood mill	Архангельский фанерный завод, ЗАО	Arkhangelsk	<a href="http://www.arkpf.ru">www.arkpf.ru</a>
Bumex plywood mill	Лахденпохский фанерный комбинат "Бумэкс", ООО	Karelia	<a href="http://www.bumex.ru">www.bumex.ru</a>
Cherepovets plywood and furniture factory	Череповецкий фанерно-мебельный комбинат, ЗАО	Vologda	
Fanplast	Фанпласт, ОАО (фанерный завод)	St. Petersburg	<a href="http://www.fanplast.sp.ru">www.fanplast.sp.ru</a>
Lesprom SPB	Леспром СПб, ОАО	St. Petersburg	
Lyuban woodworking plant	Любанский лесодеревообрабатывающий комбинат (ЛДОК), ОАО	Leningrad	<a href="http://www.rosstro-group.ru">www.rosstro-group.ru</a>
Novator, plywood mill in Velikiy Ustyug	Великоустюгский Фанерный Комбинат "Новатор", ОАО	Vologda	<a href="http://www.sveza.ru">www.sveza.ru</a>
Parfino plywood factory	Парфинский фанерный комбинат, ОАО	Novgorod	<a href="http://www.parfinofk.ru">www.parfinofk.ru</a>
Severtara	Севертара, ОАО	Vologda	<a href="http://www.severtara.ru">www.severtara.ru</a>
Sotameko Plus	Сотамеко Плюс, ООО	Vologda	<a href="http://www.fancom.ru">www.fancom.ru</a>
Syktvykar plywood mill	Сыктывкарский фанерный завод, ООО	Komi	<a href="http://www.plypan.com">www.plypan.com</a>
UPM-Kymmene Chudovo	ЮПМ-Кюммене Чудово, ООО	Novgorod	<a href="http://www.upm-kymmene.com">www.upm-kymmene.com</a>
Ust-Izhora plywood mill	Усть-Ижорский фанерный комбинат, ОАО	St. Petersburg	<a href="http://www.sveza.ru">www.sveza.ru</a>
Zheshart plywood mill	Жешартский фанерный комбинат, ЗАО	Komi	<a href="http://www.upqweb.ru">www.upqweb.ru</a>

<b>Particle board producers</b>			
Cherepovetsky plywood and furniture factory	Череповецкий фанерно-мебельный комбинат, ЗАО	Vologda	
Karelia DSP	Карелия ДСП, ООО	Karelia	
Monzensky woodworking plant	Монзенский деревообрабатывающий комбинат, ООО	Vologda	
Nevsky Laminat	Завод Невский Ламинат, ООО	Leningrad	<a href="http://www.dspnd.ru">www.dspnd.ru</a>
Pfleiderer	Флайдерер, ООО	Novgorod	<a href="http://www.pfleiderer.de">www.pfleiderer.de</a>
Sheksninsky wood board mill	Шекснинский комбинат древесных плит, ООО	Vologda	<a href="http://www.skdp.ru">www.skdp.ru</a>
Syktvykar plywood mill	Сыктывкарский фанерный завод, ООО	Komi	<a href="http://www.plypan.com">www.plypan.com</a>
Zheshart plywood mill	Жешартский фанерный комбинат, ЗАО	Komi	<a href="http://www.upgweb.ru">www.upgweb.ru</a>
<b>Fibreboard producers</b>			
Arkhangelsk pulp and paper mill	Архангельский целлюлозно-бумажный комбинат, ОАО	Arkhangelsk	<a href="http://www.appm.ru">www.appm.ru</a>
IlimSeverDrev	Илимсевердрев, ООО	Arkhangelsk	
Knyazhpogostsky fibreboard plant	Княжпогостский завод ДВП, ООО	Komi	<a href="http://www.wood-way.ru">www.wood-way.ru</a>
Lesplitinvest	Лесплитинвест, ОАО	Leningrad	<a href="http://www.plit.ru">www.plit.ru</a>
Sheksninsky wood board mill	Шекснинский комбинат древесных плит, ООО	Vologda	<a href="http://www.skdp.ru">www.skdp.ru</a>
Sokol pulp and paper mill	Сокольский целлюлозно-бумажный комбинат, ОАО	Vologda	<a href="http://www.sokolmill.ru">www.sokolmill.ru</a>
Sukhonsky pulp and paper mill	Сухонский целлюлозно-бумажный комбинат, ОАО	Vologda	
<b>Pulp producers</b>			
Arkhangelsk pulp and paper mill	Архангельский целлюлозно-бумажный комбинат, ОАО	Arkhangelsk	<a href="http://www.appm.ru">www.appm.ru</a>
Ilim Koryazhma	Группа Илим, филиал в Корьяжме	Arkhangelsk	<a href="http://www.ilimgroup.ru">www.ilimgroup.ru</a>
Kondopoga pulp and paper mill	Кондопога, ОАО	Karelia	<a href="http://home.onego.ru/~avangard">home.onego.ru/~avangard</a>
Mondi Syktvykar	Монди Сыктывкарский ЛПК, ОАО	Komi	<a href="http://www.mondigroup.com">www.mondigroup.com</a>
Pitkaranta pulp mill	Целлюлозный завод Питкяранта, ОАО	Karelia	<a href="http://www.pitzavod.ru">www.pitzavod.ru</a>
Segezha pulp and paper mill	Сегежский целлюлозно-бумажный комбинат, ОАО	Karelia	<a href="http://www.scbk.ru">www.scbk.ru</a> <a href="http://www.investlesprom.ru">www.investlesprom.ru</a>
Sokol pulp and paper mill	Сокольский целлюлозно-бумажный комбинат, ОАО	Vologda	<a href="http://www.sokolmill.ru">www.sokolmill.ru</a>
Solombala pulp and paper mill	Солombsальский целлюлозно-бумажный комбинат, ОАО	Arkhangelsk	<a href="http://www.solombala.com">www.solombala.com</a>
Svetogorsk	Светогорск, ОАО	Leningrad	<a href="http://www.internationalpaper.com">www.internationalpaper.com</a>
Syasky pulp and paper mill	Сясьский целлюлозно-бумажный комбинат, ОАО	Leningrad	<a href="http://www.syas.ru">www.syas.ru</a>
Vyborgskaya Cellulose	Выборгская целлюлоза, ОАО	Leningrad	<a href="http://www.vybcell.ru">www.vybcell.ru</a>

<b>Paper producers</b>			
Arkhangelsk pulp and paper mill	Архангельский целлюлозно-бумажный комбинат, ОАО	Arkhangelsk	<a href="http://www.appm.ru">www.appm.ru</a>
Ilim Koryazhma	Группа Илим, филиал в Коряжме	Arkhangelsk	<a href="http://www.ilimgroup.ru">www.ilimgroup.ru</a>
Kamennogorsk paper mill	Каменногорская фабрика офсетных бумаг, ЗАО	Leningrad	
Kommunar paper mill	Бумажная фабрика Коммунар, ОАО	Leningrad	<a href="http://www.kommunar.ru">www.kommunar.ru</a>
Kondopoga pulp and paper mill	Кондопога, ОАО	Karelia	<a href="http://home.onego.ru/~avangard">home.onego.ru/~avangard</a>
Mondi Syktyvkar	Монди Сыктывкарский ЛПК, ОАО	Komi	<a href="http://www.mondigroup.com">www.mondigroup.com</a>
Segezha pulp and paper mill	Сегежский целлюлозно-бумажный комбинат, ОАО	Karelia	<a href="http://www.scbk.ru">www.scbk.ru</a> <a href="http://www.investlesprom.ru">www.investlesprom.ru</a>
Sokol pulp and paper mill	Сокольский целлюлозно-бумажный комбинат, ОАО	Vologda	<a href="http://www.sokolmill.ru">www.sokolmill.ru</a>
Svetogorsk	Светогорск, ОАО	Leningrad	<a href="http://www.internationalpaper.com">www.internationalpaper.com</a>
Syasky pulp and paper mill	Сясьский целлюлозно-бумажный комбинат, ОАО	Leningrad	<a href="http://www.syas.ru">www.syas.ru</a>
Vel'giysk paper mill	Вельгийская бумажная фабрика, ОАО	Novgorod	<a href="http://www.bvbf.natm.ru">www.bvbf.natm.ru</a>
Vyborgskaya Cellulose	Выборгская целлюлоза, ОАО	Leningrad	<a href="http://www.vybcell.ru">www.vybcell.ru</a>
<b>Paperboard producers</b>			
Arkhangelsk pulp and paper mill	Архангельский целлюлозно-бумажный комбинат, ОАО	Arkhangelsk	<a href="http://www.appm.ru">www.appm.ru</a>
Ilim Koryazhma	Группа Илим, филиал в Коряжме	Arkhangelsk	<a href="http://www.ilimgroup.ru">www.ilimgroup.ru</a>
Mondi Syktyvkar	Монди Сыктывкарский ЛПК, ОАО	Komi	<a href="http://www.mondigroup.com">www.mondigroup.com</a>
Segezha pulp and paper mill	Сегежский целлюлозно-бумажный комбинат, ОАО	Karelia	<a href="http://www.scbk.ru">www.scbk.ru</a> <a href="http://www.investlesprom.ru">www.investlesprom.ru</a>
Smurfit Kappa St.Petersburg	Смерфит Каппа Санкт-Петербург	Leningrad	<a href="http://www.smurfitkappa.ru">www.smurfitkappa.ru</a>
St.Petersburg paperboard and printing mill	Санкт-Петербургский картонно-полиграфический комбинат, ОАО	Leningrad	<a href="http://www.ilimgroup.ru">www.ilimgroup.ru</a>
Sukhonsky pulp and paper mill	Сухонский целлюлозно-бумажный комбинат, ООО	Vologda	<a href="http://www.ukobf.ru">www.ukobf.ru</a>
Suoyarvskaya paperboard mill	Суоярвская картонная фабрика, ООО	Karelia	
Svetogorsk	Светогорск, ОАО	Leningrad	<a href="http://www.internationalpaper.com">www.internationalpaper.com</a>
Syasky pulp and paper mill	Сясьский целлюлозно-бумажный комбинат, ОАО	Leningrad	<a href="http://www.syas.ru">www.syas.ru</a>
Vyborgskaya Cellulose	Выборгская целлюлоза, ОАО	Leningrad	<a href="http://www.vybcell.ru">www.vybcell.ru</a>

<b>Machine manufacturers</b>			
ECO plant	Завод Эко, АО	Vologda	<a href="http://www.chipping-machine.ru">www.chipping-machine.ru</a>
Medvezhegorsky repair and mechanical plant	Медвежьегорский ремонтно-механический завод, ОАО	Karelia	<a href="http://www.harvy-forester.ru">www.harvy-forester.ru</a>
Onego tractor plant	Онежский тракторный завод, ООО	Karelia	<a href="http://www.tplants.com">www.tplants.com</a>
Petrozavodskmash	Петрозаводскмаш, ЗАО	Karelia	<a href="http://www.pbm.onego.ru">www.pbm.onego.ru</a>
Repair and mechanical plant	Ремонтно-механический завод, ЗАО	Karelia	<a href="http://www.sampo.ru/~rmz/">www.sampo.ru/~rmz/</a>
Solombala machine building plant	Соломбальский машиностроительный завод, ОАО	Arkhangelsk	<a href="http://www.smz.com.ru">www.smz.com.ru</a> <a href="http://www.liftingmachine.ru">www.liftingmachine.ru</a>
Tekstroy Mash	Завод Техстроймаш, ООО	Leningrad	<a href="http://www.tsmash.ru">www.tsmash.ru</a>
Velikoluksky plant Leskhovmash	Великолукский завод Лесхозмаш, ОАО	Pskov	<a href="http://www.leshovmash.ru">www.leshovmash.ru</a>
Velmash-S	Великолукский машиностроительный завод (Велмаш-С), ООО	Pskov	<a href="http://www.velmash.com">www.velmash.com</a> <a href="http://www.liftingmachine.ru">www.liftingmachine.ru</a>
Velsky repair and mechanical plant	Вельский ремонтно-механический завод (РМЗ), ОАО	Arkhangelsk	<a href="http://www.titangroup.ru/issuers/velskrmz.shtml">www.titangroup.ru/issuers/velskrmz.shtml</a>
<b>Wood pellet and bricket producers</b>			
Algir Pellets	Альгир Пеллетс	Komi	
Baltiysky Lesopromyshlenny Holding	Балтийский Лесопромышленный Холдинг, ЗАО	Leningrad	
Bioenergeticheskaya toplivnaya kompaniya	Биоэнергетическая топливная компания, ООО	Vologda	
Biogran	Биогран, ООО	Karelia	<a href="http://www.biogran.ru">www.biogran.ru</a>
Biom	Биом, ООО	Arkhangelsk	
Biomag Ecotechnology	Биомаг Экотехнологии	Karelia	<a href="http://www.biomageco.com">www.biomageco.com</a>
Biotek	Биотек, ООО	Leningrad	
Biotop	Биотоп, ООО	Novgorod	
Biotoplivo	Биотопливо, ООО	Leningrad	
Brilit	Брилит, ООО	Novgorod	
EcoEnergia	ЭкоЭнергия, ООО	Pskov	<a href="http://www.ecology-energy.ru">www.ecology-energy.ru</a>
Ecopel	Экопел, ЗАО	Leningrad	
Ecoresurs	Экоресурс, ООО	Leningrad	
Ecotech	Экотех, ООО	Leningrad	
Ecoterm	Экотерм, ООО	Arkhangelsk	
EuroPellet	Европеллет, ООО	Leningrad	<a href="http://www.europellet.spb.ru">www.europellet.spb.ru</a>
Green Power	Грин Пауэрс, ООО	Leningrad	
Jaski-Prom	Яски-Пром, ООО	Leningrad	
Lesprom	Леспром, ООО	Vologda	
Lespromsever	Леспромсевер, ООО	Vologda	
Pellemax Group	Пеллемакс Групп	Vologda	
Plussky DOK	Плюсский деревообрабатывающий комбинат (ДОК), ООО	Pskov	



Proizvodstvenny inzhenerno-ekologichesky tsentr	Производственный инженерно-экологический центр, ООО	Leningrad	
RosPolytechLes	РосПолитехЛес, ЗАО	Leningrad	<a href="http://www.rptg.ru">www.rptg.ru</a>
Russian Biofuel Company	Русская биотопливная компания, ООО	Leningrad	<a href="http://www.russianbiofuelcompany.ru">www.russianbiofuelcompany.ru</a>
Salotti	Салотти, ООО	Leningrad	<a href="http://www.salotti.spb.ru">www.salotti.spb.ru</a>
Sawmill 25	Лесозавод 25, ЗАО	Arkhangelsk	<a href="http://www.sawmill25.ru">www.sawmill25.ru</a>
Setles	Сетлес, ООО	Karelia	<a href="http://www.storaenso.com">www.storaenso.com</a>
Severo-Zapadny Holding	Северо-Западный холдинг, ООО	Leningrad	
SwedwoodKarelia	Сведвуд Карелия, ООО	Karelia	<a href="http://www.swedwood.com">www.swedwood.com</a>
Swedwood Tikhvin	Сведвуд Тихвин, ООО	Leningrad	<a href="http://www.swedwood.com">www.swedwood.com</a>
Terri	Терри, ООО	Vologda	
TrastKomTrading	ТрастКомТрейддинг, ЗАО	Vologda	
VEEK	ВЭЭК, ООО	Pskov	<a href="http://www.veek.ru">www.veek.ru</a>
VologdaBioExport	ВологдаБиоЭкспорт, ООО	Vologda	<a href="http://www.vologdabioexport.ru">www.vologdabioexport.ru</a>
VologdaLesProm	Корпорация ВологдаЛеспром, ОАО	Vologda	<a href="http://www.vologdalesprom.ru">www.vologdalesprom.ru</a>
Volosovo pellets	Волосово пеллетс, ЗАО	Leningrad	
VtorEco	ВторЭко, ООО	Leningrad	
Zavod Lamel	Завод Ламель, ООО	Leningrad	

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