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RUSSIAN FORESTRY REVIEW № 2

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RUSSIAN FORESTRY



REVIEW

№ 2 2007



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The New Cutting Rights in RF

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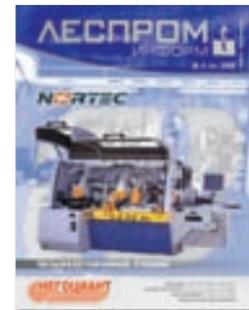
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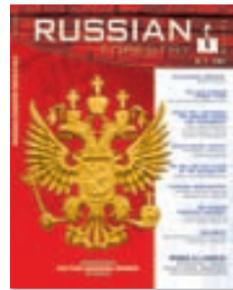
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DEAR LADIES AND GENTLEMEN!



Russian Forestry Review
1 (2006)



Russian Forestry Review
2 (2007)

You are holding in your hand the long-awaited second issue of the Russian Forestry Review collection. The first issue of RFR was published in May of last year. We were planning to publish the second issue one year later, in May 2007. However, a number of events concerning current fundamental forestry complex reforms have postponed the release date until autumn. We saw no relevancy in including information that would become outdated in a month in the analytical magazine that would

represent the Russian forestry complex for no less than one year.

In the spring, the problem of bringing a normative base that controls forestry relations in conformity with the new Forest Code was still in abeyance. The Forest Code technically came into effect on 1 January, 2007, though forest users are still not able to utilize it. Owing to our previous experience, we were quite skeptical in regards to the promises of state officials that would amend all faults and discrepancies of the existing normative base controlling forestry relations. We have envisaged 2–3 spare months – and it has turned out that it was not for nothing. It was only in the last days of September when the Ministry of Natural Resources of the RF officially reported on the approval of all the necessary by-laws. That became an important, although not an exhaustive measure for solving the problems of implementing the new Forest Code. There is still much work to be done, and the upcoming State Duma and Presidential elections won't serve to resolve these urgent matters any sooner.

At the same time, the state forest management reform that was implemented in compliance with the new Forest Code has taken place. This reform transfers forest resource management

control from the federal centers to the RF subjects. It is in full swing and this hampers timber industry development. Nevertheless, there is still progressive motion, and almost no doubt in which direction it will be going into.

One of the causes to put off the release date for the second RFR issue was the Russian Government's plans to incrementally raise export duties on round timber, as well as related events in Russia and abroad. As of late, doubts have arisen concerning the firmness of the Russian Government, as it is under great pressure from those who are not interested in the tax raise, i. e. countries importing Russian forest products and domestic forest exporters. In particular, an issue was broached by Finland and Sweden in that plans of the RF are incompatible with the requirements for its ascension into the WTO. However, round timber export taxes rose on 1 June, as was promised, and their future increase is unquestionable. Postponing terms for imposing maximum protective taxes on paper wood from 2009 to 2011 may possibly become the only compromise. The resolution on restricting raw timber export, which in the future will be equal to prohibiting it, will have a great impact on the way wood processing will develop in Russia. The results won't take long in coming. We decided not to wait any more and show you the current situation in the timber industry. After having become familiarized with it, one can predict its further development.

In the first issue of Russian Forestry Review we stated that every annual issue will logically continue the preceding one. In other words, analytical information in different issues is not repeated or duplicated. The reviews mostly cover the latest changes in the industry based on previously published materials. We invite you to read how our timber complex has changed during the last year (2006) and the first half of 2007 in RFR issue № 2.

The section dedicated to the forest resources of the country mainly highlights issues on forest regulation and related aspects of forest use on the territory of the Russian Federation. The RF forest fund structure and its condition according to official data from the Federal Forestry Agency are described in detail in the

first issue of RFR. In order to be unbiased in this issue we decided to publish a somewhat different point of view on the state of Russian forests in this issue.

The logical sequel to the topic of forestry resources is the review of the Russian logging sub-industry: its current state, technical equipment and its development in the near future. It is our first logging review so it not only covers last year's data but also pays considerable attention to the actual logging problems and currently developing tendencies.

In regard to the topic of wood processing, we barely touch upon wood sawing (we wrote about it a year ago) but give special consideration to sawn-timber, plywood and laminated wood structures manufactured in Russia. In this issue you will also find a survey of the domestic OSB market.

This marks the first time that the journal has written about the Russian furniture industry. While entering the domestic furniture market it is useful to know not only its current condition, but also the history of how it was established and developed.

Yet again, we have published the pulp and paper industry review. PPI is literally the "locomotive engine" of our forestry complex. So we could not help but focus on it, especially since it has changed so much over the past year.

We would like to note that obtaining reliable and unbiased information on domestic TIC and its sub-industries, even with big money, is quite difficult. There is almost no large independent marketing research done today, (or none we know about), and whatever exists is based on data from Rosstat (Federal State Statistics Service), or from relevant ministries. Incredible as it may seem, this data often differs – so how are we to consider it reliable? Here, we believe that the opinions of experts competent in interpreting official information, and who take factors left out by state statistics into account, are less prejudiced. However, we can't guarantee that the information published in RFR is completely reliable. We recommend that you read the articles critically.

Faithfully yours, the Editorial Department

www.RussianForestryReview.com



We would like to especially thank those who have helped us to prepare this journal

RF Government Executive Bodies:

- Ministry of Industry and Energy of the Russian Federation
- Federal Forestry Agency
- Administration of the Volgograd region
- Forestry Administration of the Volgograd region
- Administration of Science, Industry and Resources of the Volgograd region
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- Administration of the Krasnodar Region
- Forestry Department of the Krasnodar Region
- Investments and Project Maintainability Department of the Krasnodar Region
- Industrial Department of the Krasnodar Region.

Non-commercial industrial groups:

- Confederation of Associations and Unions of Forest, Pulp and Paper, Woodworking and Furniture Industries
- Russian Association of Pulp-and-Paper Organizations and Enterprises RAO "Bumprom"
- Association for the Russian Furniture and Woodworking Industry
- National Bioenergy Union
- Russian Association of Glulam Producers and Consumers (RAGPC)
- Union of Woodworkers of Leningrad Region
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- Saint-Petersburg State Forest-Technical Academy
- Savcor Indufor Oy.

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And also personally:

- Dmitry Chuiko, Andrey Gosudarev, Arkady Kamionsky, Yuri Lakhtikov and Valery Saykovsky.



LIEBE FREUNDE!

Das Buch, das Sie in der Hand halten, ist der langersehnte zweite Sammelband Russian Forestry Review. Die erste Ausgabe RFR erschien im Mai vergangenen Jahres. Die zweite Ausgabe sollte ursprünglich erst in einem Jahr erscheinen, d. h. im Mai, 2007. Aber unter den bestehenden Umständen, die mit der ihrer Fortgang nehmenden durchgreifenden Umgestaltung der Holzindustrie verbunden sind, wurde der Termin der Herausgabe dieses Sammelbandes auf den Herbst verschoben. Wir halten es für unzulässig, dass dieser Sammelband der analytischen Schiftstücke, der im Laufe des ganzen Jahres eine Informationsquelle für die russischen Holzproduzenten sein sollte, enthält die Informationen, die in einem Monat schon kalter Kaffee sind.

Im Frühjahr laufenden Jahres war das Problem der Regelung der normgeltenden Basis dieses Industriezweiges in Übereinstimmung mit dem Forstgesetzbuch der Russischen Föderation noch nicht gelöst. Formell ist das Forstgesetzbuch ab 1. Januar 2007 rechtskräftig, aber bis jetzt können die Forstleute es nicht verwenden. Den Versprechungen der Beamten, alle Fehler und Missverhältnisse der gegenwärtigen normgeltenden Basis bis Juli zu korrigieren sahen wir pessimistisch entgegen. Unsere Erfahrung kam zum Ausdruck. Wir gaben noch 2–3 Monate dazu und nicht umsonst, wie es sich herausstellte. Erst in letzten Septembertagen erstattete das Ministerium für Naturschätze Bericht, dass fast alle nötigen untergesetzlichen Akten in Kraft gesetzt wurden. Das war eine wichtige, aber nicht erschöpfende Maßnahme zur Lösung der mit der Inkraftsetzung des Forstgesetzbuches entstandenen Probleme.

Gleichzeitig vollzieht sich die Umstrukturierung der staatlichen Waldverwaltung in der Übereinstimmung mit dem neuen Forstgesetzbuch, und zwar die Übergabe der Verwaltung der Waldressourcen von föderalen Behörden an die Subjekte der Russischen Föderation. Die Umstrukturierung ist noch nicht abgeschlossen und das hemmt die Entwicklung der Holzindustrie. Die Vorwärtsbewegung ist mindestens vorhanden und es kann kein Zweifel darüber bestehen, in welcher Richtung sie weiter geht.

Einer der Gründe, den Termin der Herausgabe des zweiten Sammelbandes „Russian Forestry Review“ zu verschieben, waren die Pläne der russischen Regierung zur schrittenweisen Erhöhung der Ausfuhrzolle für Rundholz und die damit verbundene Reaktion im Lande und im Ausland. Das war der Anlass, an der Standhaftigkeit der russischen Regierung zu zweifeln, der unter dem Druck denen stand, die an der Zollerhöhung nicht interessiert waren: nämlich die grössten Holzimporteure und die inländischen Holzexporteure. Zweifellos bedeutet die heutige Ausfuhrbegrenzung des Rohholzes in der Zukunft seine totale Sperre. Dieser Entschluss übt auf den Entwicklungsweg der Holzverarbeitung einen großen Einfluss und seine Folgen lassen sich nicht warten. Wir entschieden uns, nicht mehr abzuwarten, und stellen die Analyse der gegenwärtigen Lage in der Holzindustrie zu Ihren Verfügung.

In der ersten Ausgabe „Russian Forestry Review“ wurde erwähnt, dass jede nächstfolgende Ausgabe dieses Sammelwerkes folgerichtige Fortsetzung der vorangehenden sein sollte. Mit anderen Worten wird die analytische Information nicht wiederholt und erscheint nur einmal. Unsere Umschau gestützt auf die veröffentlichten Artikel stellt in erster Linie die letzten Umgestaltungen im Industriezweig dar. Also, aus „Russian Forestry Review“ №2 kann man über die Veränderungen in der einheimischen Holzindustrie im vergagnengenen Jahr 2006 und im ersten Halbjahr 2007 lesen.

In der Rubrik, in der die Waldressource erörtert werden, schenken wir den Fragen der Forstgesetzgebung und damit verbundenen Aspekten der Waldnutzung auf dem Territorium der RF besondere Aufmerksamkeit.

Die logische Fortsetzung des Rahmenthemas der Waldressource wurde Umschau der Holzbeschaffung in Russland: ihre heutige Lage, technische Ausrüstung, zukünftige Entwicklung. Da die Fragen der Holzbeschaffung in unserer Ausgabe zum ersten Male erörtert werden, begnügen wir uns nicht nur mit den Angaben vorigen Jahres, sondern auch schenken den aktuellen Fragen und bildenden Tendenzen dieses Industriebereiches besondere Aufmerksamkeit. Was die Holzverarbeitung angeht, wurde das Thema des Holzsägens fast nicht berührt (Es wurde vor einem Jahr behandelt). Diesmal steht im Mittelpunkt unserer Aufmerksamkeit die Herstellung von Schnitthölzer, Sperholz und Holzkleebeteile. Man kann hier auch die Übersicht des russischen OSB-Marktes finden.

Ganz neu ist für unsere Ausgabe das Thema der russischen Möbelindustrie. Wenn man auf dem heimischen Möbelmarkt Fuss fassen will, muss man über die Lage in der Industrie, Geschichte ihrer Bildung und Entwicklung informiert sein.

Sie ist Treibwerk unseres Holzindustriekomplexes und wir konnten sie ungeachtet lassen um so mehr, das dieser Industriezweig im Vorjahr bedeutende Fortschritte gemacht hatte.

Es ist zu erwähnen, dass die wahre und objektive Information über die Holzindustrie und ihre Unterzweige auch für großes Geld kaum zugänglich ist. Umfassende unabhängige Marketingforschungen werden nicht durchgeführt (oder wir wissen darüber nicht). Die vorhandenen Ergebnisse der Untersuchungen stützten sich auf die Angaben des russischen Amtes für Statistik und der Fachministerien, aber diese Angaben unterscheiden sich paradoxerweise voneinander, das heisst, sie sind nicht unbestreitbar. In diesem Sinne scheinen uns die Meinungen der Fachleute viel sachlicher zu sein, da sie die Information der offiziellen Quellen unter der Berücksichtigung der Faktoren, die außen der staatlichen Statistik liegen, sachkundig interpretieren. Wir können die Unbestreitbarkeit der in RFR veröffentlichten Schriften gewährleisten und bitten, an den Inhalt kritisch heranzugehen.

Hochachtungsvoll, Redaktion

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EGREGI SIGNORI,

Abbiamo pubblicato l' attesissima seconda edizione della raccolta Russian Forestry Review che adesso tenete nelle Vostre mani. La prima edizione RFR e' uscita ancora nel maggio dell' anno scorso. Inizialmente la pubblicazione della seconda edizione era programmata tra un anno cioe' a maggio 2007. Pero' abbiamo spostato la sua uscita per l'autunno per diverse ragioni collegate alla continua riforma radicale nel complesso di industrie del legname nei giorni d'oggi. Abbiamo considerato l'impossibile pubblicare nella raccolta analitica che rappresenta durante tutto l'anno ed anche di piu il settore del legname della Russia l' informazioni che diventeranno obsolete tra un mese.

Primavera di quest' anno ancora non era risolta il problema di far corrispondere al nuovo Codice Forestale di Federazione Russa tutto il resto della base normativa che regola tutti rapporti forestali. Formalmente il codice e' entrato in vigore dal 1 gennaio 2007 pero' fino ad ora i lavoratori forestali non hanno possibilita' di usarlo. Non avevamo molta fiducia nelle promesse dei funzionari statali ad eliminare verso luglio tutte le mancanze e discordanze della base normativa forestale esistente perche' ci ricordavamo l'esperienza passata. Abbiamo preso di scorta 2–3 mesi sopra e come vediamo non e' sbagliato. Solo ultimi giorni di settembre il Ministero delle risorse naturali ha fatto rendiconto ufficiale che sono stati assunti tutti gli atti dentro la legge.

Parallelmente si sta avanzando la riforma di gestione statale delle foreste, gia in conformita' con il nuovo Codice Forestale, cioe' il passaggio di gestione delle risorse forestali dal centro federale alle regioni di Federazione Russa. La riforma e' ancora lontana dal essere terminata e questo mette tanti ostacoli per lo sviluppo del settore forestale. Pero' almeno c'e il movimento di traslazione e quasi non ci sono dubbi su in quale direzione questo movimento andra' avanti.

Una delle ragioni per lo spostamento della data di seconda pubblicazione RFR sono stati l'intenzioni governative di aumentare a fasi le tasse d'esportazione per il legname tondo e gli eventi collegati a questo dentro la Russia ed oltre le frontiere. E' aparso il motivo di avere dubbi sulla fermezza dei dirigenti russi nelle condizioni di pressione forte da parte di quelli che non erano interessati in questo aumento: i principali paesi-importatori del legname ed esportatori russi del legname. Comunque dal 1 luglio le tasse per l'esportazione di legno tondo come e' stato promesso sono cresciute e non ci sono dubbi che l'intenzione e' di farle crescere ancora. Indubbiamente la decisione su questa limitazione che nel futuro sara' pari al divieto d'esportazione del legname non lavorato influenzerà molto su quale strada andra' la lavorazione del legno in Russia. I risultati li vedremo tra poco.

Gia nella prima edizione di Russian Forestry Review abbiamo ditto che ogni seguente pubblicazione sara' come la logica continuazione delle precedenti. In altre parole l'informazione analitica nelle edizioni non si ripeta e non si doppia. Le rassegne comprendono piu di tanto gli ultimi cambiamenti nel settore tenendo conto delle informazioni gia pubblicate. Allora leggete nel RFR №2 su come e' cambiato il complesso di industrie del legname durante il 2006 e la prima meta' del 2007.

Nella sezione dedicata alle risorse naturali del paese abbiamo prestato la massima attenzione alle questioni della legislazione forestale ed a gli aspetti

collegati dell' utilizzazione delle foreste sul territorio di Federazione Russa.

La continuazione logica del tema delle risorse forestali e' stata la rassegna per il settore di preparazione del legno: la sua situazione attuale, il suo attrezzamento tecnico, il suo prossimo sviluppo.

Nella parte dedicata alla lavorazione del legname quasi non abbiamo considerato il tema della segatura di legno (su questo abbiamo scritto un anno fa) pero' l'attenzione particolare abbiamo prestato alla produzione di materiali per segatura, legno compensato e costruzioni incollati di legno. In questa edizione trovate anche la rassegna sul mercato russo di OSB.

Per prima volta nella raccolta si pubblica l'articolo sull' industria dei mobili in Russia. Presentandosi nel mercato dei mobili e' utile sapere non solo la situazione attuale ma la storia della sua formazione e sviluppo.

Di nuovo abbiamo pubblicato la rassegna d'industria della cellulosa in Russia che e' senza esagerare la locomotiva del nostro complesso di industrie del legname percio' non potevamo non prestare l'attenzione ad essa. Bisogna considerare che questo settore ha subito molti cambiamenti notevoli durante l'anno scorso.

Vorremmo sottolineare che oggi in Russia e' estremamente difficile ottenere l'informazione vera e obiettiva sul complesso di industrie del legname e suoi divisioni – neanche con grande denaro. Non si fanno le ricerche indipendenti e serie del mercato (oppure non lo sappiamo), e quelli che ci sono si basano sui dati ufficiali di Rosstat e di ministeri di profilo, ma anche se sembra paradossale questi dati si distinguono molto spesso tra di loro ed allora non possiamo parlare di loro attendibilita'. In questo senso ci sembrano molto piu' obiettivi le opinioni degli esperti che interpretano l'informazione dai sorsi ufficiali considerando i fattori rimasti fuori dalla statistica statale. Tuttavia non possiamo garantire la completa attendibilita' dell' informazione pubblicata nel RFR e Vi preghiamo di avere un approccio critico al suo contenuto.

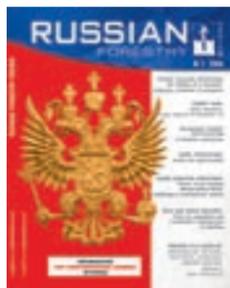
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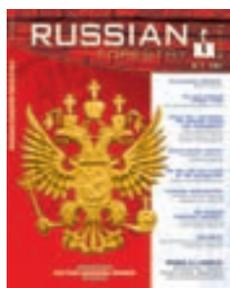




УВАЖАЕМЫЕ ЧИТАТЕЛИ!



Russian Forestry Review
1 (2006)



Russian Forestry Review
2 (2007)

Мы выпустили долгожданный второй номер сборника **Russian Forestry Review (RFR)**, который вы сейчас держите в руках. Первый номер **RFR** вышел еще в мае прошлого года. Выход второго номера изначально планировался через год, то есть в мае 2007 года.

Однако в силу ряда обстоятельств, связанных с продолжающимся сегодня коренным реформированием лесопромышленного комплекса, мы перенесли выпуск сборника на осень. Мы сочли невозможным включить в аналитический сборник, призванный в течение года и более представлять

ЛПК России, информацию, которая устареет через месяц.

Весной текущего года еще оставалась в подвешенном состоянии проблема приведения в соответствие новому Лесному кодексу РФ всей остальной нормативной базы, регулирующей лесные отношения. Формально кодекс вступил в действие с 1 января 2007 года, но до сих пор лесопользователи не имеют возможности по нему работать. Обещаниям госчиновников исправить к июлю все недостатки и несоответствия существующей нормативной базы, регулирующей лесные отношения, мы не очень верили – сказывался прежний опыт. Взяли запас – еще 2–3 месяца сверху, и, как оказалось, не зря. Лишь в последние дни сентября Министерство природных ресурсов РФ официально отчиталось о том, что приняты почти все необходимые подзаконные акты. Это стало важной, но отнюдь не исчерпывающей мерой по решению проблем, связанных с введением в действие нового Лесного кодекса. Предстоит еще серьезная работа, и грядущие выборы в Госдуму России и президентские выборы отнюдь не ускорят решение наболевших вопросов.

Параллельно идет реформа государственного управления лесами, запущенная в соответствии с принятым новым Лесным кодексом, – передача управления лесными ресурсами от федерального центра в субъекты РФ. Реформа еще далека до завершения, что сильно препятствует развитию

лесной отрасли. Но, по крайней мере, есть поступательное движение, и сомнений в том, в каком направлении оно будет продолжаться, почти нет.

Одним из поводов отодвинуть дату выхода второго номера сборника **RFR** послужили планы Правительства РФ по поэтапному повышению вывозных таможенных пошлин на круглый лес и связанные с этим события внутри России и за ее пределами. Появился повод сомневаться в твердости российского руководства в условиях сильного давления со стороны тех, кто был не заинтересован в их повышении, – основных стран – импортеров российского леса и отечественных лесозэкспортеров. В частности, Финляндия и Швеция поднимали вопрос о несовместимости планов РФ с требованиями по вступлению ее в ВТО. Тем не менее с 1 июля пошлины на экспорт кругляка, как и было обещано, выросли, и об отказе от намерений по их дальнейшему повышению речи не идет. Единственной уступкой, возможно, станет перенос сроков введения максимальных заградительных пошлин на балансовую древесину с 2009 на 2011 год. Несомненно, решение об ограничении, в будущем равносильном фактическому запрету вывоза необработанной древесины, сильно повлияет на то, каким путем будет развиваться лесопереработка в России, и результаты будут видны очень скоро. Мы решили больше не выжидать и представить вам текущую ситуацию в лесной отрасли, изучив которую, уже можно прогнозировать дальнейшее ее развитие.

Еще в первом номере **RFR** мы говорили, что каждый следующий выпуск ежегодного сборника будет являться логическим продолжением предыдущих. Другими словами, аналитическая информация в номерах не повторяется и не дублируется. Обзоры охватывают прежде всего последние изменения в отрасли, опираясь на ранее вышедшие материалы. Итак, читайте в **RFR № 2** о том, как изменился отечественный ЛПК за прошедший 2006-й и первое полугодие 2007 года.

В разделе, посвященном лесным ресурсам страны, мы уделили максимум внимания вопросам лесного законодательства и связанным с этим аспектам осуществления лесопользования на территории РФ. Структура лесного фонда РФ и его состояние по официальным данным Федерального агентства лесного хозяйства достаточно подробно описаны в предыдущем номере **RFR**. В этом номере мы, желая быть объективными, опубликовали несколько иную точку зрения относительно состояния российских лесов.

Логичным продолжением темы лесных ресурсов стал обзор лесозаготовительной подотрасли России: ее текущее состояние, техническая оснащенность, ближайшее развитие. Поскольку лесозаготовку мы рассматриваем в **RFR** впервые, обзор подотрасли не ограничился данными только прошедшего года, а значительное внимание было уделено ее актуальным проблемам и формирующимся тенденциям.

В части переработки древесины мы практически не рассматривали тему лесопиления (о ней мы писали год назад), зато особое внимание уделили производству пиломатериалов, фанеры и деревянных клееных конструкций в России. Также вы найдете в этом номере обзор отечественного рынка OSB.

Впервые в сборнике публикуется материал о российской мебельной промышленности. Выходя на отечественный мебельный рынок, полезно знать не только текущее состояние отрасли, но и историю ее формирования и развития.

В очередной раз мы опубликовали обзор целлюлозно-бумажной отрасли (ЦБП) России. ЦБП является без всякого преувеличения локомотивом нашего лесопромышленного комплекса, и не уделить ей внимания мы не могли, тем более что данная отрасль претерпела заметные перемены за прошедший год.

Хотелось бы отметить, что сегодня в России крайне сложно получить достоверную и объективную информацию об отечественном ЛПК и его подотраслях, даже за большие деньги. Масштабных независимых маркетинговых исследований не проводится (или мы о них не знаем), а те, что есть, основываются на официальных данных Росстата и профильных министерств, но, как ни парадоксально, эти данные нередко отличаются друг от друга, что уж говорить об их достоверности. В этом смысле более объективными нам представляются мнения экспертов, которые грамотно интерпретируют информацию из официальных источников с учетом факторов, оставшихся за пределами государственной статистики. Тем не менее мы не можем гарантировать полную достоверность публикуемой в сборнике **RFR** информации и просим вас подходить к его содержанию критично.

С уважением, редакция

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Национальному биоэнергетическому союзу,
Российской ассоциации производителей и потребителей деревянных клееных конструкций,
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Уральскому союзу лесопромышленников;

нашим партнерам:

Группе «Илим», «Монди Бизнес Пейпа Сыктывкарский ЛПК», «Кроностар», John Deere, Биотопливному portalу Wood-Pellets.com, Институту Адама Смита, Компании «Русские инвесторы» и интернет-portalу RWT, Компании Savcor Indufor Oу, Санкт-Петербургской государственной лесотехнической академии;

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RUSSIA'S TIMBER INDUSTRY

RUSSIAN FOREST RESOURCES

The total area of forested territory in Russia is 776.1 million ha. According to FAOSTAT statistics, Russia is home to 22% of global forestry coverage.

Its total standing wood reserves amount to 82.1 billion m³ (23% of global volumes).

The total allowable cut across Russia was set in 2006 at 576 million m³ on the basis of its certified exploitable forest area.

The take-up of the allowable cut was 23.4% in 2006, as compared with 22.9% in 2005 (where the allowable cut was set at 570.7 million m³). The relatively low utilization of the cutting reserves demonstrates the potential for enhanced efficiency in forest exploitation.

The main bulk of the forests (78%) are concentrated in Asian Russia, with only 22% located in European Russia.

The taiga accounts for approximately 77% of forest resources. The northern forestry reserve consists of almost bare tundra (13% of forest resources). The south presents mostly mixed and deciduous temperate forests (7% of forest resources). A small proportion of the forest in the south is classified as forest-steppe and steppe (3% of forest resources).

Coniferous varieties – pine, spruce, larch, silver fir and Siberian pine (cedar) – dominate on 71% of the forested area.

Birch is the most widespread of the deciduous species, prevailing on 13% of forested area.

A SNAPSHOT OF THE TIMBER SECTOR

The total industrial production of the Russian timber industry for 2006 is evaluated at 495 billion rubles. The overall growth in production in 2006 was 102.0%, as opposed to 104.2% in 2005. There has been no high-speed development of the timber industry in comparison with other dynamically developing

sectors. The output of the timber sector in 2005–2006 was largely dependent on the activities of the major pulp and paper mills and wood processing holding companies, and the policies they implemented for modernizing their businesses. The growth in production in timber and paper products was the result of the introduction of new facilities for manufacturing wood-based panels, cardboard, large-format plywood, newsprint and wallpaper, corrugated cardboard, and offset cut paper.

Russia falls behind a number of countries (USA, Canada, Finland, and Sweden) in timber production figures as a consequence of inefficient management of forest resources. Russia's share of the world volume of timber production does not match the raw material potential of the country, and makes up only 3% of world production.

The largest importers of timber products are the USA, Europe and Japan, with the largest exporters being Canada and Russia.

RUSSIA'S LOGGING INDUSTRY

Each year 3.49 billion m³ of roundwood is harvested in the world, of which 1.69 billion m³ is used as industrial roundwood.

In 2006 the Russian logging industry produced 93.5 million m³ of industrial roundwood, which was 95.2% of the total for 2005. During the period from January–July 2007, the production of industrial roundwood, as compared with the same period the previous year, grew by 3.9%, and reached 57.2 mln m³.

The USA is the world's leading producer of industrial roundwood, producing 427.97 mln m³ annually. Other major producers on the world stage are Canada – with production volumes of 196.44 million m³, Russia – 139.5 million m³, Brazil – 110.47 million m³, China – 93.2 million m³ and Sweden – 91.7 million m³.

Russia provides 8% of the world production of industrial roundwood.

The greatest slump in Russia's logging production

was recorded in 1998 (95 million m³), but as early as 1999 an upward trend started to correct these figures. In 2005, the volume of logging was 187 million m³, of which 48 million m³ was sent for export. At the same time, export volumes grew by 14.3% compared with the previous year, with an increase in harvesting that stood at only 6.9%. Russia imports no more than 1 million m³. From this it is possible to reach a deduction about the continuing tendency to transfer the processing of raw materials abroad.

Russia accounts for only about 5.4% of world logging production volumes, at the same time as also representing 22% of world forest coverage, and approximately 23% of total world forest resources.

The growth in production of activities defined as "logging" for 2005 was 108.3%, which includes the production of industrial roundwood, which was at 103.9% of the level for the corresponding period in 2006.

The principal partners consuming roundwood logs from Russia are China and Finland, which consume 19.5 million m³ and 19.2 million m³ respectively. In the past few years, large wood-processing plants have been set up in Northern China, and these ensure a stable growth in consumption. The volume of consumption of sawn timber has grown in China by a factor of 20.4. Finland purchases sawn timber and paper wood from Russia, and Finland's share of the market in Russia is constantly on the increase. These two countries together account for 80% of imports from Russia.

WOODWORKING

The processing index for woodworking and wood product manufacturing for 2006 was 100.5% of the 2005 indicators: the increase in production volumes is linked to the growth in production of veneer, plywood, boards, wood-based panels (100.8%), and wooden building constructions, including prefabricated wooden buildings, joinery products (114.1%), and packaging (102.3%).

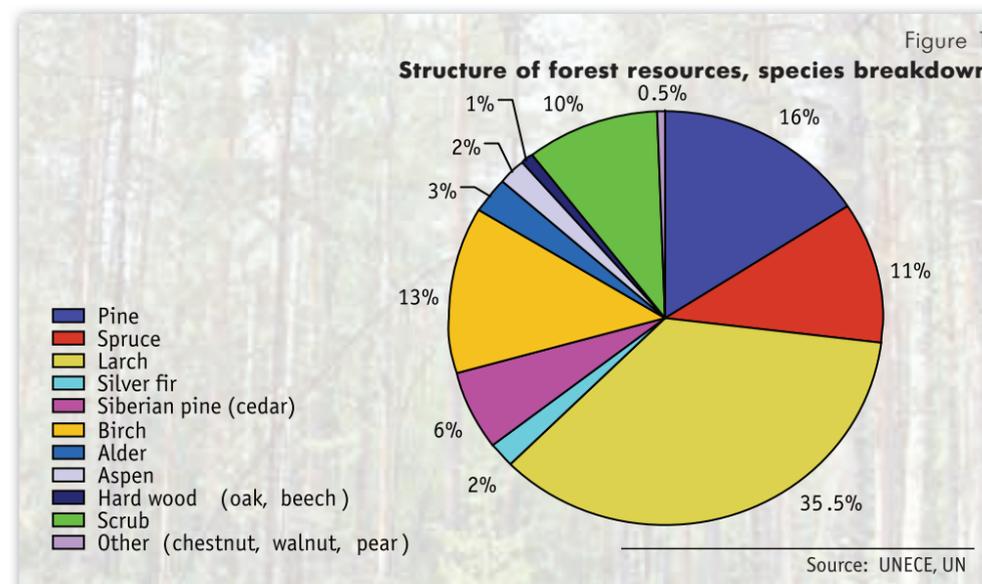
The market in Russia for high-level processed wood is in the process of forming. Future development depends on the speed with which Russian consumption of wood products approaches levels abroad.

Foreign markets are more advanced. This is particularly true of North America, which is significantly ahead of Europe in the consumption of wood-based construction materials. This is typified not only by the high market share of existing products, but also in the use of new products (I-joist and LVL). At the same time, markets for new products grow at a rate of 20–30% annually.

The greatest growth rates in Russia are observed in the production of plywood, chipboard, cardboard and furniture. The average annual rate of growth is 10%.

Sawn timber

Approximately 400 million m³ of sawn timber is produced in the world each year. In 2005



the volume of world production of sawn timber increased by 4.7% as compared with the previous year, and was assessed at 428.65 million m³. The following countries rank among the principal producers of sawn timber: USA (95.6 million m³), Canada (60.2 million m³), Russia (22.5 million m³), Germany (22.1 million m³), Brazil (21.2 million m³).

Production levels of sawn goods in Russia in 2005 were at 42.2% of the 1992 levels. Production volume was at its lowest in 1999. From 2000–2005 a positive growth trend was observed; production volumes of sawn timber grew by 4.7% in 2005, while growth in 2004 was 6.7%. Despite a discerned reduction in the growth rate of production volumes of sawn goods, the tendency for growth will continue. One reason behind the growth is Russian government policy, which targets development of the country's sawmill and woodworking industries.

In 2006, Russia saw production of 21.3 million m³ of sawn goods (3.3% less than production volumes for 2005) and 2.6 million m³ of plywood (1.7% more than the previous year's production).

World exports of sawn goods in 2005 increased by 3.6% and totaled 134 million m³. The largest exporters were Canada (41.18 million m³), Austria

(7.28 million m³), Sweden (11.9 million m³), Russia (15.4 million m³), Finland (7.67 million m³), and Germany (6.45 million m³).

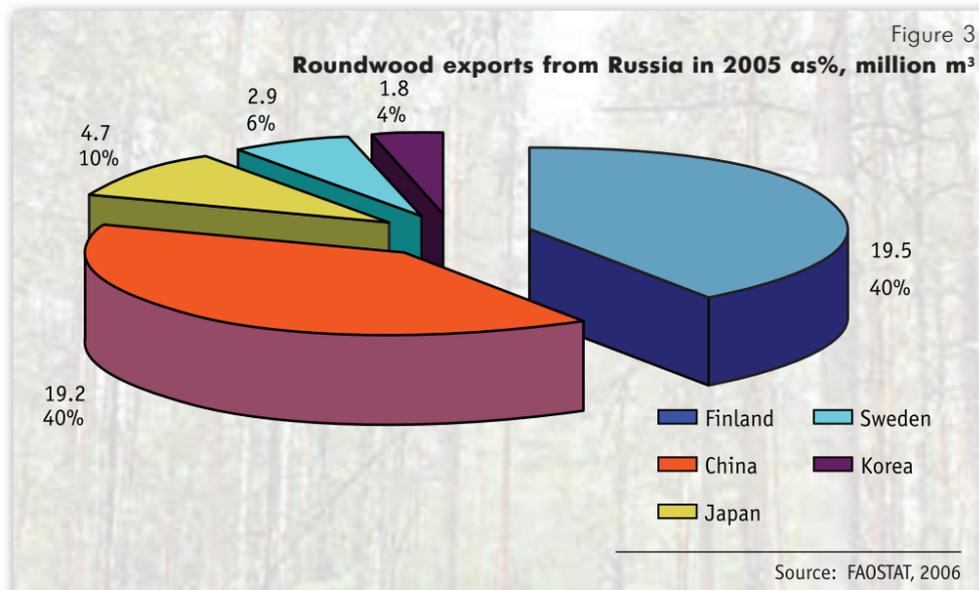
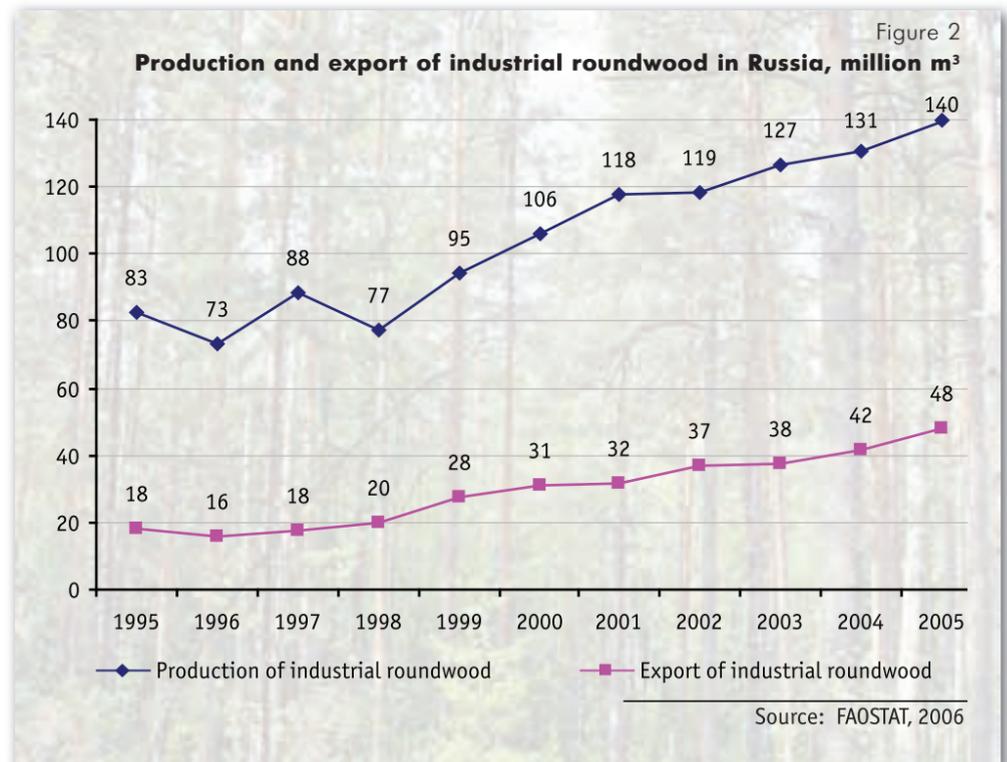
In 2005, Russia exported 15.4 million m³ of sawn timber. The total volume of export for this period grew by a factor of 2.6, with a 2.4 decrease factor for total production. In 2005, the volume of sawn timber export increased by 22%. We believe that the export of sawn goods from Russia will continue to increase over the coming 3–5 years as a result of favorable conditions on the world market for sawn goods, and favorable government policy.

Although the woodworking sector for hardwood timber is developing at a slow rate in Russia, the export of hardwood sawn goods grew significantly in 2005, and the principal destination country was China.

Major importers of Russian softwood sawn timber are Egypt, Japan, China, the UK and Germany.

Fiberboard

The production of fiberboard in Russia reduced slightly (0.6%) in 2006, and amounted to 373 million m³. During the period from January – July 2007, Russian companies produced 230 million m³ of fiberboard.



Chipboard

Growth in chipboard production in 2006 was 116.9% of the figure for 2005. The growth in production volumes is largely a result of increased domestic demand.

Pulp and paper industry

In 2006, the production of pulp, wood pulp, paper, cardboard and derivative products increased by 4.4%, primarily on account of growth in cardboard production (10.3% increase) and the manufacture of cardboard boxes (11.5% increase) which has resulted from the rapidly growing demand for cardboard packaging in the food sector.

Russia occupies twelfth place in world pulp

and paper production, or has a market share of 2%, and has no significant impact on the world market (the portion wielded by the pulp and paper industry in countries with a highly developed pulp and paper sector is 12–15%).

However, in recent years, Russian pulp and paper production has risen steadily. In 2006 production growth in pulp and paper was 104.4%.

Medium Density Fiberboard

The market for MDF boards is developing dynamically: demand for MDF panels is increasing (8% per year), and the price is lowering slightly as a result of enhanced competition.

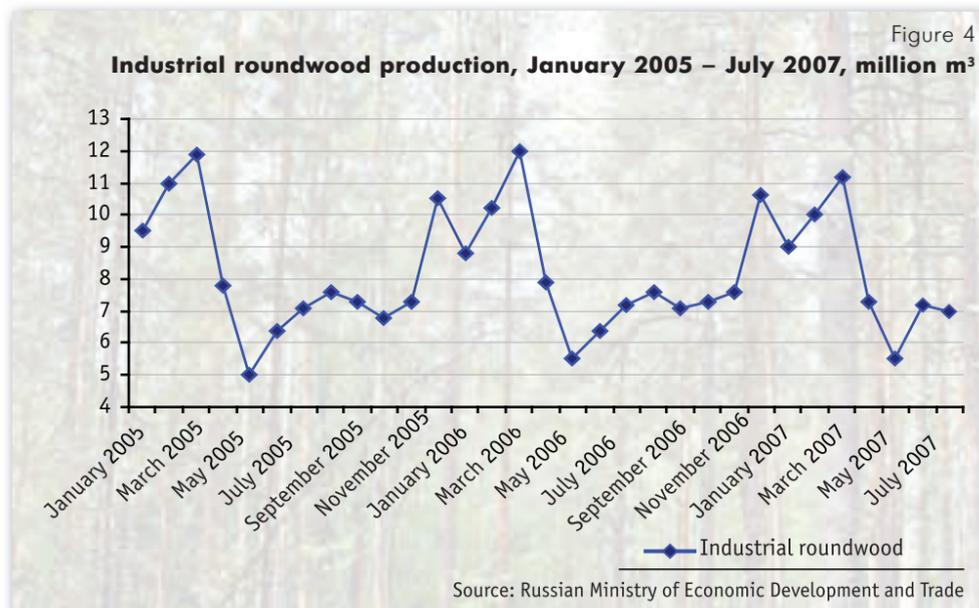




Table 1
Russian woodworking industry production 2000–2006

Product	unit	2000	2001	2002	2003	2004	2005	2006	Jan-Jul 2007
Sawn timber	million m ³	18.7	18.5	17.8	20.0	19.8	19.2	21.3	13.1
Fiberboard	thous m ³	278 000	282 000	310 000	325 000	347 000	375 000	373 000	230 000
Chipboard	thous m ³	2 294	2 482	2 800	3 181	3 602	3 930	4 600	2 900
Pulp	thous ton	2 017	2 136	2 204	2 301	2 890	2 430	2 380	1 389
Paper	thous ton	3 318	3 415	3 845	3 655	3 879	3 937	4 005	2 368
Cardboard	thous ton	1 980	2 180	2 404	2 694	2 890	3 125	3 400	1 974
Plywood	thous m ³	1 483	1 590	1 808	1 960	2 120	2 556	2 600	1 569

Source: Ministry of Industry and Energy

The largest importers of MDF are: the USA (19%), Belgium (10%), Spain (9%), Russia (8%), Germany (7%), and the UK (5%).

Major MDF exporters are: Germany (36%), and France (13%).

In spite of production growth of MDF in Russia, an MDF board deficit was discerned in 2006 to the tune of more than 300,000 m³.

A transfer to more high-quality products (MDF boards) has caused a reduction in the production of hardboard (99.4%).

Glued-laminated timber

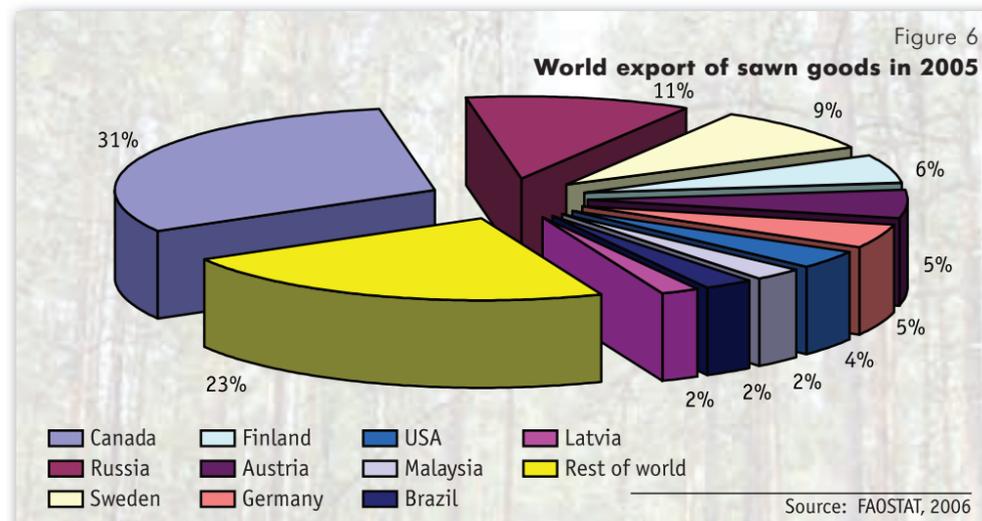
Despite steady growth since the year 2000, the production and utilization of glued-laminated structural timber (glulam) has remained at a low level in Russia. Russian companies produce less than 100,000 m³ of glued-laminated timber. Glulam production volumes are a long way behind those of more developed countries: Russia's share of European production of glulam is less than 2%.

According to data from Russian State Statistics

(Rosstat), production volumes of glued-laminated structural timber grew by a factor of 11 between 2001 and 2005, including a 37-fold increase of structural glulam products. In 2005 a total of 68,000 m³ of glulam was produced, including 33,000 m³ weight-bearing structural glulam, an increase as compared to 2004 of 156% and 182% respectively. Since the inception of the glulam market, the most extensive distribution in Russia has been attained by glulam products for the personal construction market, and the proportion of structural products out of the total volume amounted to 14% for 2001. However, by 2005, the proportion of structural glulam products accounted for almost half of all glulam elements.

Consumption rates of growth for glulam in 2005 were lower than production rates (45% as opposed to 55%). The main bulk of utilization for products made from glued-laminated timber is concentrated in regions across European Russia, and the Urals. The Moscow region is a major consumer.

The potential for development of Russian glulam production over the next five years looks very promising, and is closely linked to the future



expansion of the scope of construction development, state support for wooden home construction, high-level processing of wood, a growth in personal incomes across the population and further development of the mortgage market, and enhanced competitiveness of national producers.

Russian export of glued-laminated timber products has grown steadily over the last five years, which testifies to the high quality of Russian production by certain manufacturers able to compete in the international market. In 2006 the volume of export was 72,000 m³, which was a 29% increase on the figure for 2005, and almost twice as much as in 2002. However, export volumes are still at an excessively low level as compared to more developed countries.

At the current time, the core of Russian export from glued-laminated timber consists of glulam

straight construction beams (68%), and glulam window frames (16%).

Glulam products are presented for export from every single federal district across Russia. The largest volumes of glulam are dispatched from Russia's Far-East district, Siberia, and the Central district. The leader among regional exporters is the Primorsky Territory (43% of the export volume), 97% of the deliveries from which are made to Japan. There is a large gap between Primorsky and the secondary regions in the glulam export rating, which are the Krasnoyarsk Territory (9%), Tyumen (6%) and Novosibirsk (5%) provinces.

Half of the export of glulam wood products from Russia are destined for Japan, which is a stable sales market for Russian glulam products. Other important importing countries for Russia's glulam products are Kazakhstan, Italy, Germany,

Figure 5
World sawn timber production in 2005

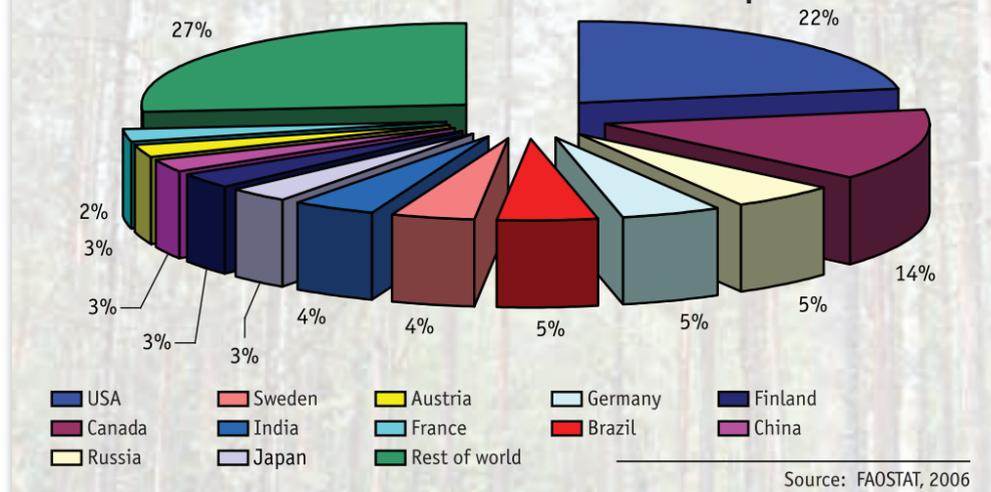


Figure 7
Production of fiberboard in Russia, 2000–2007, million m³

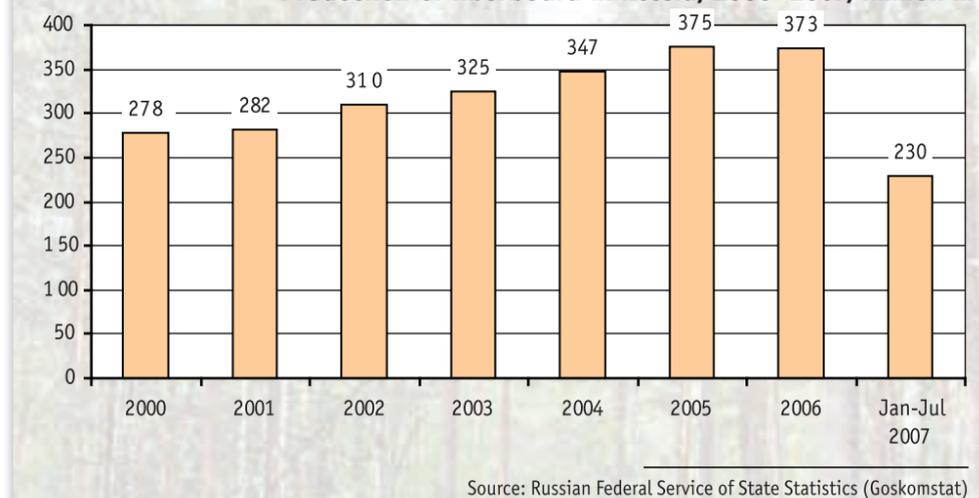




Figure 8
Chipboard production in Russia, 2000–2007, million m³

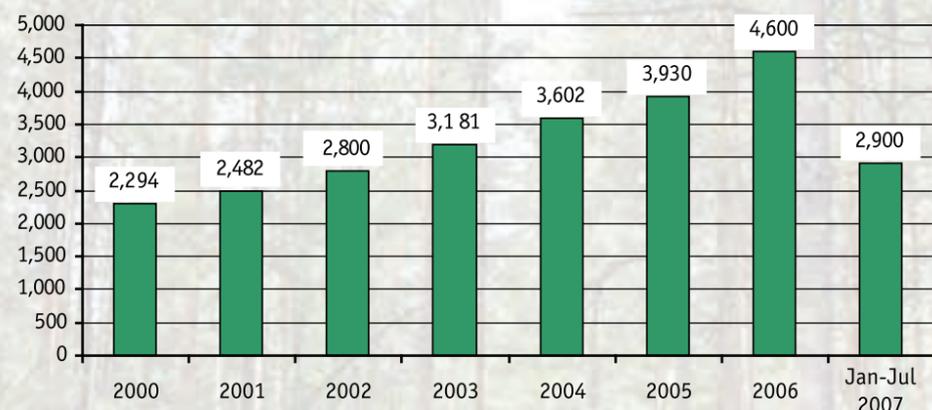
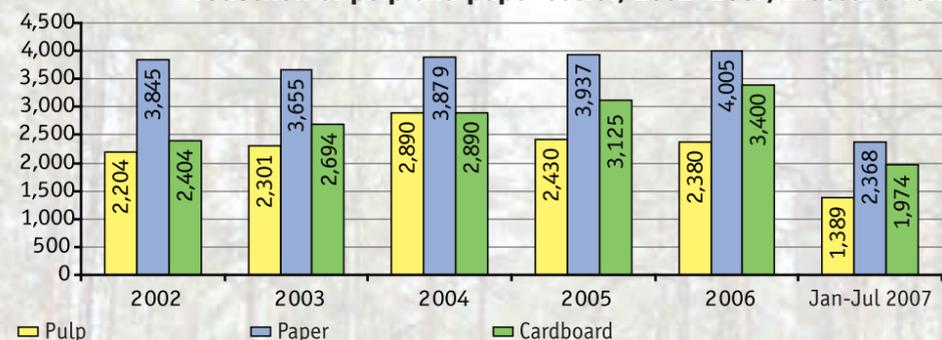
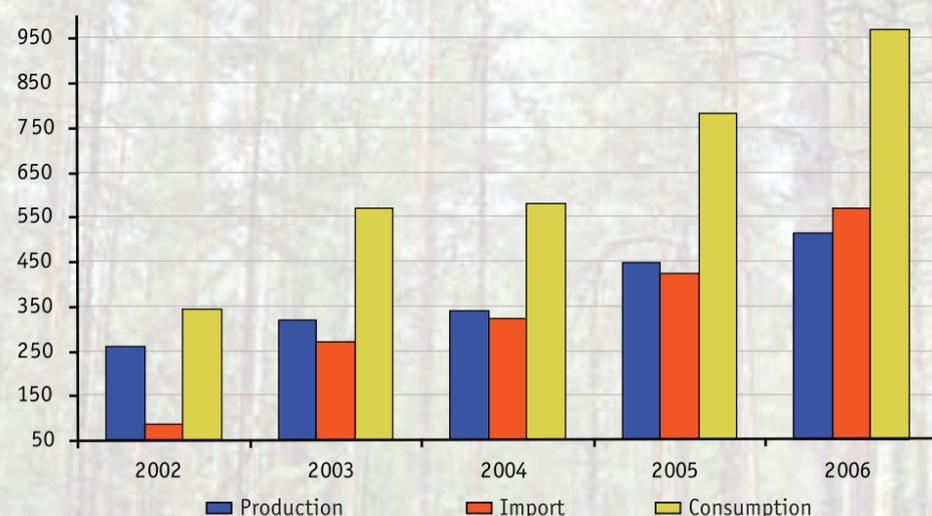


Figure 9
Production of pulp and paper sector, 2002–2007, thousand tons



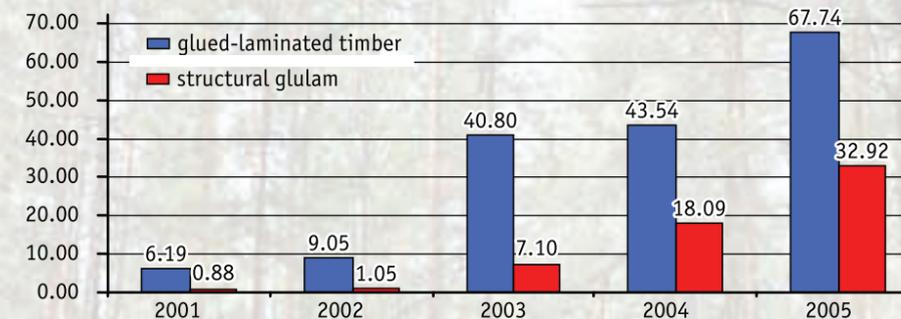
Source: Russian Federal Service of State Statistics (Goskomstat)

Figure 10
Production, import and consumption of MDF boards in Russia, 2002–2006, thousand m³



Source: FAO

Figure 11
Production volumes for glued-laminated timber in Russia, 2000–2005*, thousand m³



*based on data from large and medium enterprises

Source: Russian State Statistics (Rosstat), 2006

Finland and Denmark. Some export deliveries are dispatched likewise to Austria, South Korea, Lithuania, Latvia, Hungary, Poland and a number of other countries, but the volumes are negligible.

The growth of import of glulam products into the Russian market is a result of the increase in disposable income among the population, and an increase in demand for wooden buildings and high-quality furniture. Imports of glulam products have doubled in volume over the last five years, and reached their highpoint in 2006, with a total volume of 6,840 m³. Imports in 2006 were up 8% from 2005 levels.

Furniture production

The production share of furniture in the total volume of production by the timber industry was 11.7% in 2006. Over recent years, small enterprises have demonstrated accelerated development in the furniture sector. Growth in furniture production

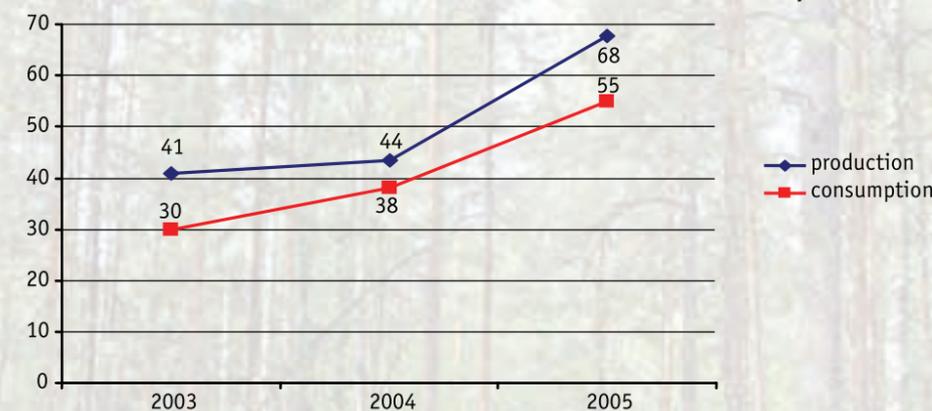
from small enterprises significantly outweighed overall indicators for the sector as a whole. The production share among small enterprises currently stands at approximately 20% of the total production of furniture.

The prerequisites for the accelerated expansion in furniture production are as follows: a relatively low level of supply of furniture among the population and at diverse facilities, while there is likewise a high deferred demand for furniture; adequate supply of the main types of raw material required; and demand for components, semi-finished products and furniture on external markets, especially in CIS countries.

FOREIGN TRADE

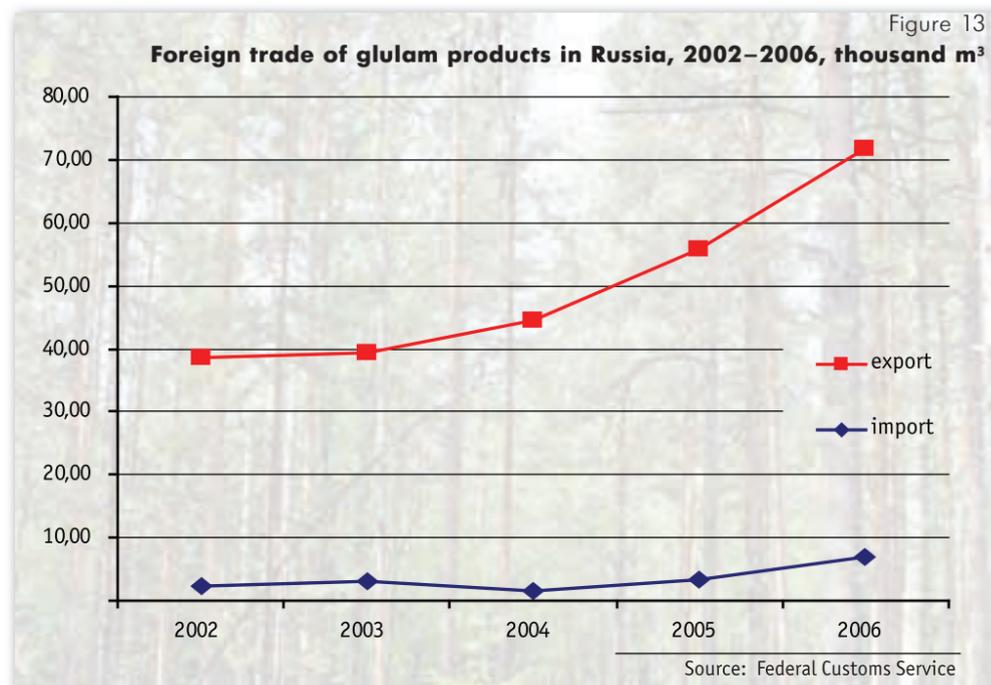
In 2006 the export of timber and paper products (including furniture) was estimated at \$10 billion, a figure of 116.3% in relation to 2005. At the same

Figure 12
Dynamic of production and consumption of glulam in Russia, 2003–2005, thousand m³



Source: Rosstat, Russian Association of Glulam Producers and Customers





time, growth rates for physical export volumes diminished in 2006. Thus, in 2006, the growth in roundwood exports was 106.9% as opposed to 115.7% in 2005, sawn timber – 107.8% (117%), and plywood – 102.9% (107%). Simultaneously, physical export volumes of these goods to CIS countries are growing at higher rates (122.7%, 132.9%, and 136.4%). Furniture imports in 2006 grew by 28.6% and topped the \$1 billion mark.

Import in 2006 of Russian timber by the three world leaders in paper production (China, Japan, and Finland) was estimated at 43 million m³. At the same time, there were no investment proposals for the construction of pulp and paper mills in Russia from these importers, which indicates their intentions of continuing to use the Russian forests as a source of raw materials.

Russia discernibly lags behind the leading players on the market for products from timber and pulp and paper as a consequence of inefficient export structures. Roundwood is the prime commodity of export, along with the cheaper products from woodworking and pulp and paper facilities. Russia sends 35% of its forestry resources for export in the form of unprocessed timber, and only 2–5% of Russian timber is processed into finished materials. According to expert assessment, by 2015 there will be an anticipated reduction in the proportion of roundwood offered for export, from 33% to 8%, and an increase of the export share for high-level processed wood products, including

paper and cardboard, from 21% to 28%.

Exports of birch and pine roundwood to China and Japan are the most attractive deliveries. The gross profit margin generated by Russian logging firms when supplying materials for domestic processing is one of the highest, especially compared to European margins. Supply of sawn timber will grow steadily in two directions, to Japan and China, because of the high profit margins, and because of forecasted deficits of these products in these regions. There will be a supply shortage of roundwood in Europe, Asia and Africa over the coming five years. At the current time, the most attractive opportunity is to supply sawn larch timber to Europe and Japan. Supply of sawn timber for export will grow steadily: to Japan and Europe – due to the high gross profit margin; and to Africa and Japan – as a result of deficit.

In the breakdown of timber industry imports, 33% consists of products from the pulp and paper sector (types of high-quality and special paper, hygiene products, and packaging).

Wood working products are imported as follows:

- Building materials (window and door units, parquet, and finished paneling, typically from Finland, Slovenia, Italy, Germany)
- Wood-based panels (chiefly from Germany, Poland and Italy)
- Furniture (major suppliers – Italy, Poland, Finland and Germany)

INVESTMENT IN THE FORESTRY SECTOR

In 2005, a total of 39.6 billion rubles was invested in the forestry sector in Russia, which was 8 billion rubles more than in the previous year. Moreover, more than half of all investments in the forestry industry were directed towards woodworking.

In 2006, investment volumes into the development of the forestry industry increased, and reached 41.7 billion rubles. Foreign investment made up 30% of the total invested in the forestry sector in 2005, and estimates place the 2006 figure at the same level.

The overall investment needs of the Russian forestry industrial sector over the next 11 years are evaluated at over 1 trillion rubles (\$40 billion). Over \$3 billion must be invested annually to develop production by the forestry sector.

The average volume of investment to set up a sawmill operation is \$6–7 million, and the range across different project proposals varies from \$1 million to \$20 million, while the average investment for a pulp and paper mill is \$900 million – \$1300 million.

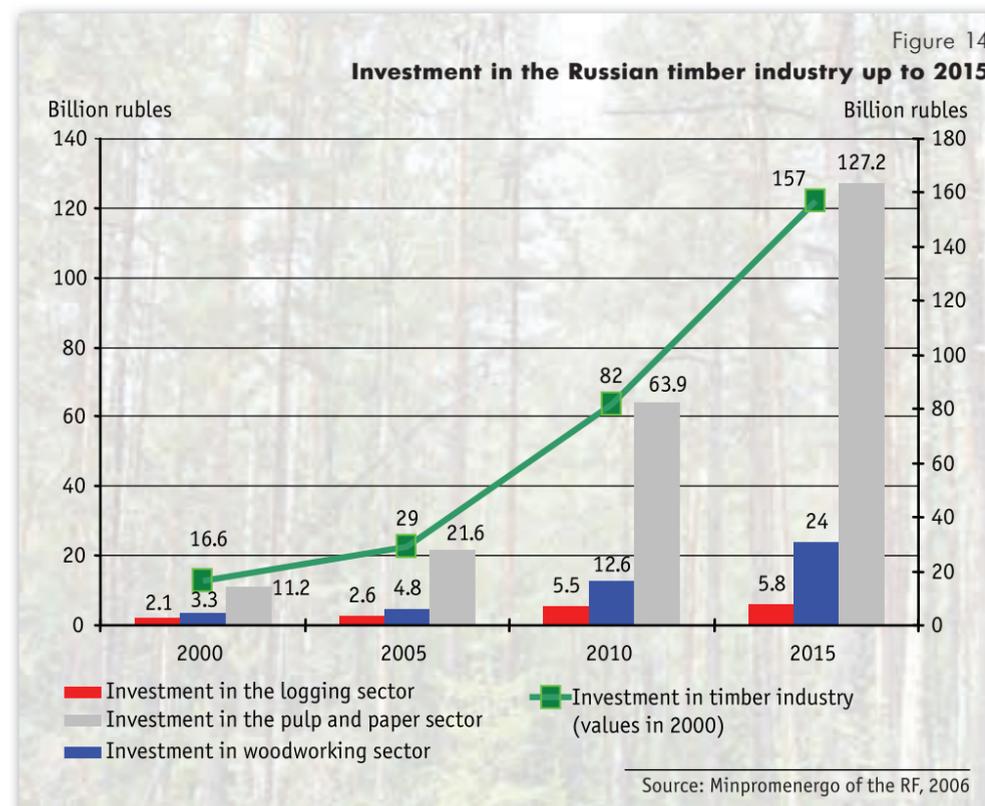
Investment activity in the timber sector is high, with major investment projects implemented by such large holding companies as Kronospan Holdings, Ilim Pulp Enterprise, Metsaliitto, and Stora Enso.

CHALLENGES FACED BY THE TIMBER INDUSTRY

According to experts from the Ministry of Industry and Energy, the principal challenges that restrain the development of the timber industry remain as follows:

- Insufficient competitiveness for many types of products stemming from a lack of modern production techniques and high-tech equipment in most enterprises in the timber sector
- Relatively low investment appeal among companies within the timber complex (an annual investment of 50–55 billion rubles in the timber industry is needed to ensure accelerated development)
- Lack of spare capacity at a number of production facilities (certain pulp-and-paper, and plywood plants are working at over 90% capacity).

The material is prepared by the Group of Companies "Russian Investors"



RUSSIAN FOREST INDUSTRY: STATE OF AFFAIRS AND STEPS TAKEN BY THE MINISTRY OF INDUSTRY AND ENERGY FOR ITS DEVELOPMENT

It is common knowledge, that the Russian Federation is the world leader in timber stock. AAC is estimated at approximately 550mln cubic meters, however, this natural resource, unlike mineral ones, is still underused. Russia's share in global timber production has been gradually increasing, starting from 1998, but it has not yet reached the 1991 level.

In addition to this, the share of Russian forest-related industries in the country's GDP (1,2%) is impermissibly small in comparison with the aggregate volume of industrial production. Last year, the production average in forest-related industries was 102%.

This is the reason why effective forest use and enhanced development of the industry at the expense of timber processing are the priority businesses on the agenda of the Russian Ministry of Industry and Energy.

MARKET ANALYSIS

The global timber market is characterized by a supply-demand balance. Its major part is occupied by pulp and paper products which have the biggest added value. During the previous years, a stable growth of paper products consumption was observed on the Russian market. So, in 2000, the sales of paper products amounted to \$6.2 bln, while in 2005 – \$15.3 bln, which

NOTE | Output/consumption ratio for paper products in Russia:

The marketable output of the industry in 1998 was priced at \$5.35 bln, of which \$3.0 bln was exported.

In 2006, the marketable output increased to \$18.5 bln, export – to \$9.5 bln.

is a 2.5 fold growth. In the meantime, the share of imported products on the domestic market increased: in 2000 it was 19.4%, in 2005–20.3%. The country's trading in paper products accounted for 70% of all imports, while another 26% was in furniture.

The roundwood segment is dominated by Russia, controlling over one third of the market. However, the higher the value added, the less Russia's share in the corresponding segments. This factor determines the structure of Russian export relying mainly on roundwood trade.

The export oriented raw materials industry is a consequence of the imperfect production structure and trade policies of neighboring countries interested in the procurement of roundwood, which finds no market in Russia. This is, above all, hardwood species growing in the European part of the country and conifers of the Far-East. The positive foreign trade balance in the forest sector is to a great extent ensured by the growing export of raw wood.

According to the preliminary estimates, currency earnings from timber export increased by \$1.4 bln in 2006 as compared to 2005 and approached \$10 bln. The share of currency earnings from roundwood export is about 35%.

The measures taken for the previous years helped to somewhat adjust the production structure by commissioning new particle board

and lumber facilities. Corrugated cardboard and plywood plants have also been put into operation.

In the meantime, the workload of timber processing facilities for manufacturing various product items from plywood to paper products is 85–95%. This means that the industry, while being unable to reach former highs, is already exhausted. Unless new facilities are introduced and old ones are refurbished, the industry will not change its export structure in terms of expansion of its share in high value-added products and meet the growing demand of the domestic market. The misbalance will be compensated by imports.

The consolidated profit of timber industry in 2006 was \$28 bln (industrial profit average was 8%); while the volume of investments did not exceed \$35.9 bln (\$0.8 per \$1 of income against 2.5 in developed countries). This is obviously not enough for the "breakthrough" in new technologies. In order to occupy the leading positions in the global timber business, the industry annually needs at least \$120 bln of investments into production modernization and augmentation, R&D and marketing.

Lately, a number of industrial segments underwent a consolidation of assets: there appeared several big actors having investment resources and capable of drawing up and implementing their own local development projects.

The degree of asset concentration in different segments is uneven. The closer to raw materials, the less the concentration is. The less consolidated segment is timber harvesting. According to the statistics, about 20 thousand legal entities are engaged in logging activities.

A multiplicity of small enterprises unable to develop independently leads to the degradation of the enterprises and the sector. Such trends bring doubt in sustaining harvesting volumes required by processing facilities.

This is an indirect confirmation of the poor condition of logging companies' equipment pools.

POLICY OF TIMBER INDUSTRY

To stimulate quicker development of integrated timber processing, "Measures to Enhance

Competitiveness of Domestic Forest Industry" were adopted in 2006. The document provides for:

- Ensuring investment attractiveness of Russian forest related industries.
- Enhancing competitiveness of Russian forest related industries.
- Improving mechanisms of governmental regulation in forest related industries.
- Integration of the forest industry into the global timber market.

Some of these measures have already been implemented. First, the Russian government approved a resolution on stepwise increase of export duties on roundwood. According to the resolution, the cost of duties will become unbearable, reducing the volume of roundwood export from 51 mln cu m in 2006 to 5 mln cu m in 2011. So, all timber harvested under the agreement will have to be processed in Russia. On the other hand, export duties on almost all kinds of timber equipment and wood-based products were abolished. These measures are aimed to encourage investments, first of all foreign ones, into the Russian forest related industries.

Other measures include the program for preventing illegal timber harvesting and stiffening criminal sentences in the area of forest use, and uniform timber measurement methodologies. The remaining measures are under development.

By making the decision to increase export duties on roundwood, the government sent a clear message to the potential investors saying that it is interested in the development of timber processing inside the country. However, the message is unlikely to reach its addressees unless it is supported by a pack of transparent investment instruments directly affecting the feasibility of timber processing investment projects.

This is why the Ministry of Industry and Energy, working on the Rules of Preparation and Approval of the List of Priority Investment Projects in Forest Development, identified investment outlay items and cost constituents to be determined by the government for the purpose of enhancing investment attractiveness of integrated timber processing projects.

In the process of preparation of the draft rules, the Ministry of Industry and Energy involved a wide

NOTE

In late 2006, for the purpose of coordinating approved measures, and preparing balanced offers in the area of forest industrial policy, an Advisory Board for Governmental Policy and Legal Regulation of Timber Industry was set up under the auspices of the Ministry of Industry and Energy, which is to be chaired by Victor Khristenko, RF Minister of Industry and Energy.

The Board included representatives of relative federal and regional ministries and agencies, the biggest industrial enterprises, public organizations and trade unions. The Board's duty is to prepare a pack of legal regulatory acts following the Forest Code which came into effect at the beginning of the year.

The Board has three working groups: the Investment and Innovation Policy Working Group (chaired by Z. D. Smoushkin, the head of RUIE Commission on Forest Industry), the Customs and Tax Regulation Working Group (V Ya. Kroupchak, the State Duma deputy, member of the State Duma Committee on natural resources and use) and the Forest Use Regulation Working Group (co-chairmen of the group – V. I. Taraskin, Director of Legal Relations Department of the Ministry of Industry and Energy, and D. M. Kirillov, Director of Department of State Policy in Forest and Water Resources of the Ministry of Natural Resources).

Monthly meetings of the Board are held by the Minister of Industry and Energy.

Composition of the Advisory Board on state policy and legal regulation of the forest industry is as follows:

1. Khristenko Victor Borisovich – RF Minister of Industry and Energy, Chairman of the Board
2. Shvetsov Vadim Arkadievich – Chairman of the Board of Directors of OJSC Sveza, Deputy Chairman of the Board
3. Peredery Petr Philippovich – Deputy Director of RF MIE Department of Industry, Executive Secretary of the Board
4. Belyakov Alexander Semyonovich – Chairman of the Committee on Forest Industry and Management of the Chamber of Commerce and Industry

5. Burdin Nikolay Alekseevich – General Director of OJSC NIPIEIIessprom
6. Gnezdilov Andrey Alekseevich – Deputy Governor of the Krasnoyarsk region
7. Deineko Andrey Dmitrievich – Director of the RF MIE Department of Industry
8. Dutov Andrey Vladimirovich – Deputy Head of the Federal Industrial Agency
9. Yeremeev Nikolay Sergueevich – President of the Association of Forest Engineering Organizations and Enterprises "Roslesmash"
10. Zverev Valentin Ivanovich – General Director of OJSC Shatura Furniture Factory
11. Iogman Leonid Genrikhovich – Deputy Governor of the Vologda region, Head of Economy Department
12. Krupchak Vladimir Yaroslavovich – RF State Duma Deputy
13. Makarov Nikolay Borisovich – Chairman of the Board of Directors of Continental Management Inc.
14. Ochekurov Valery Nikolaevich – Chairman of the RF Union of Forest Industries Employees
15. Prokopov Andrey Valentinovich – General Director of National Timber Company
16. Smoushkin Zakhar Davidovich – Chairman of the Committee of Forest Industries of Russian Union of Industrialists and Entrepreneurs (RUIE)
17. Dribny Andrey Nikolaevich – General Director of Mondi Business Paper Syktyvkar LPK CJSC
18. Tatsun Miron Vasilievich – President of Union of Timber Producers and Exporters of Russia
19. Trubitsyn Andrey Aleksandrovich – Head of Department for Development of Entrepreneurship and Real Sector of Economy in the Administrative Authorities of the Tomsk region
20. Turin Yevgeny Timofeevich – General Director of OJSC TsNIIB
21. Fedorov Valery Ivanovich – Member of the Federation Council of the Federal Assembly of the Russian Federation
22. Shershunov Victor Andreevich – Governor of the Kostroma region
23. Shikhalev Vassily Mikhailovich – Minister of Forest Industry of the Khabarovsk region.

range of stakeholders in the discussion by setting up an Advisory Board for the Forest Industry. This helped work out a common approach to creating incentives for integrated high technology investment projects, on the one part, and investors' obligations, on the other part. One can say, that the discussion process itself somewhat encouraged big investors to participate in forest projects.

The list of priority investment projects in forest development is likely to include projects of creation and modernization of the forest and timber processing infrastructure with the aggregate sum of inputs being at least 300 mln rubles. Several investment projects implemented by one investor on the territory of federal districts or subjects of the Russian Federation may be united into one project.

The Ministry of Industry and Energy will make a decision to include a project into the List of Priority Investment Projects in Forest Development within 14 days from the date of receipt of the application from the interested body.

The List will be held in accordance with the requirements established by the Rules of Preparation and Approval of the List of Priority Investment Projects in Forest Development approved by the RF government's resolution of 30 June 2007 # 419.

The development of new high-technology production facilities will be supported by the

federal target program entitled "Development of Advanced Timber Processing Facilities and Forest Stands for the Period until 2015" which is being drawn up. While preparing the program, the Ministry of Industry and Energy considered more than 220 offers from 31 regions and identified 34 challenging projects to be included into the program for reasons of expedience. The FTP will be amended and revised in the process of implementation as new investment projects arise.

The Achilles heel of the timber industry is its quite worn-out and outdated infrastructure. The problem of forest roads is particularly acute. Small companies dominating the forest industry cannot afford such expenses. As a result, harvesting operations concentrate mainly in the developed forest areas in close proximity to existing timber extraction roads and public roads. Development of new forest areas, which could increase the quantitative and qualitative indicators of the industry, is rather an exception to the rule.

A scheme of public-private partnership seems to be expedient, too. It provides for governmental contribution to the new advanced timber processing enterprises including the financing of infrastructure facilities, i. e. construction of the trunk forest road network. Later on, they may be purchased by private companies.

The growth in timber processing and wood-based products was 105.3% for the period of January-July 2007 (against the corresponding period in 2006), in pulp, groundwood, paper, cardboard and products out of these materials – 104%.

Harvesting volume augmented by 108.3%, including commercial timber (103.9%) against the corresponding period in 2006.

The output of major forest products for January-July 2007 was as follows.

Product	January-July		January-July 2007 in% against January-July 2006
	2006	2007	
Commercial timber, mln cu m	55.1	57.2	103.9
Lumber, mln cu m	12.8	13.1	102.2
Glued plywood, thsd. cu m	1,569	1,589	101.3
Hard fiberboards, mln cu m	218	230	105.4
Chipboards, thsd. cu m	2,540	2,904	114.3
Market pulp, thsd. tons	1,36	1,389	101.6
Paper, thsd. tons	2,374	2,368	99.7
Cardboard, thsd. tons	1,918	1,974	102.9

In January-July 2007, the growth of almost all wood-based products output was observed. The most prospective dynamic is demonstrated by particle boards (fiberboards – 105.4%, chipboards – 114.3%) accounted for by the new enterprises reaching rated capacities.

FOR REFERENCE



24

RUSSIAN FORESTRY FACES



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LARGER PREFERENCES FOR LARGE INVESTORS

In the middle of summer, the Russian government approved probably the most awaited draft decree on the clause provisions of paragraph 3; article 22, and paragraph 3; article 74 of the new Forestry Code. On June 30th the Cabinet Council Chairman signed decree № 419 on "Priority Investment Projects in the Field of Forest Exploitation." These decrees acknowledge the way in which investment projects are to be priority, and of which the masterminds can expect quite a significant amount of government support.

In particular, the decree states that in case the investment project in the field of forest exploitation is acknowledged to be of a high priority, the investor gains the right for non-auction forest leasing. In such a case, the leasehold fee for using forest resources is only 50% of minimal rates. According to this decree, only a project or a single-investor group of projects with an investment volume of no less than 300 million rubles (around 9 million euro) can be recognized to be of a high priority.

The Ministry of Industry and Energy of the Russian Federation is in charge of the priority investment projects list in the field of forest exploitation. However, it is the Executive Bodies of territorial subjects of the Russian Federation (for forests managed by the territorial RF subjects) that make decisions on project inclusion into this list. For example, Rosleshos is in charge of decisions on forests in the Moscow region.

The Ministry of Industry and Energy has already developed requirements and Instructional Guidelines for the preparation of all the necessary priority investment project documentation (including reports). These guidelines, among other things, stipulate sanctions for the non-implementation of a priority investment project. For example, if an investment project is considered to be unrealized, i. e. the project implementation period has exceeded a year, or reporting dates have exceeded half a year, or the investor has given up on the project implementation, the lessee is to be charged the lease payment for the whole period of forest exploitation.

In particular, the Instructional Guidelines describe investment projects that qualify as high priority. These are projects on establishing and/or modernizing forest infrastructure facilities (forest roads, warehouses, etc.), and/or wood-processing infrastructure facilities (converted wood and other forest resource

processing facilities, bioenergetics objects, and others), provided that the total capital investments of each of them amounts to no less than 300 million rubles.

The decree states clear requirements for the investors' goodwill and includes a restricted list of necessary documents for project approval by the authorized body.

For the purpose of being considered for inclusion on the list of high priority projects, the commercial organization wishing to implement an investment project should provide the Ministry of Industry and Energy with an application of the standard pattern, including:

- an application for investment project implementation
- the investment project concept (project goals and objectives, brief description of the investor's actions on investment project implementation, including preliminary calculations of financial and economical budgeting, and social results of the investment project implementation)
- the investment project pay-back period
- the volume of necessary expenses for the investment project preparation and implementation, including the project financing package
- a phased plan of investment project implementation.

The decree was issued due to a number of reasons. The special nature of the deep timber processing industry demands the establishment of an infrastructure on vast areas (up to several hundred kilometers) and social objects, taking into account the provision of several thousand workplaces. According to the Ministry of Industry and Energy, additional support measures focused on the cost reduction of timber processing complex construction should be developed to stimulate the industry.

In connection with this, the Ministry of Industry and Energy has already started developing different technologies for attracting large (more than 15 billion rubles) investments into the creation of deep timber processing factories. These technologies utilize governmental and private partnership technologies involving the Investment Fund

of the Russian Federation, the Development Bank of the Russian Federation, technologies of federal target programs, and FAIP (Federal Address Investment Program). Thus, it is possible that besides forest lease payment benefits, "priority investors" will also be awarded a preferred customs tax regime, and other governmental indulgences.

In particular, during the decree discussion, three grades of investment projects with different benefit levels were considered.

For example, for projects with an investment volume amounting from 300 million up to 5 billion rubles, there are plans to set minimum rates for the stumpage price of standing wood, and exempt investors from export duties on processed timber, and from import duties on equipment for project implementation.

For projects with an investment volume amounting from 300 million up to 10 billion rubles, there are plans to set rates of 50% of the minimum for stumpage price, and exempt the investors from export duties on processed timber, and from import duties on equipment for project implementation. The investors are also planned to be supported by the government per the Investment Fund, especially for creating forest infrastructure. They also may be exempt from round timber export duties.

For investment project costs amounting to more than 10 billion rubles, it is planned to set zero stumpage rates and support the investors with the help of customs and tax management, as well as "other forms and methods of support."

Consequently, governmental decree № 419 on "Priority Investment Projects in the Field of Forest Exploitation" is only the first document for stimulating investment activity in timber complexes. By issuing the document, the government has demonstrated its interest in industry development, and in the formation of modern, up-to-date technologies of the forest industry for its potential investors. As likely as not, in the future, while realizing really large investment projects, the government may "overlook" some items to attract the world's leading timber industry players with the goal of organizing progressive and high-technology timber processing production in Russia.

Alexander GREVTSOV

NEW RUSSIAN “FOREST GOVERNMENT”

INTRODUCTION

The Russian forest industry reform stands on 3 main elephants:

- The new Forest Code (including priority investment projects)
- The new export taxes
- The new Forest Governance

Here we should touch briefly upon the structure of the new forest authorities. Of course right now we can only see the contours, but they are quite clear.

And the new political system in Russia shows that the contours drawn by the government remains the same.

The Structure of New Russian Forest Governance consists of 2 main parts: Federal and Regional. The main question here is no doubt the cutting rights distribution.

CUTTING RIGHTS DISTRIBUTION – WHAT IT WAS

Before it was a function of the Ministry of Natural Resources, companies got cutting rights through the competition made by the Federal Wood Agency, which is part of the Ministry of Natural Resources. If a company wanted to get the forest for rent, it would send the material to the Regional Authority of the Federal Wood Agency, then send it to Moscow, where a decision was made – positive or negative.

To beat the competition the company had to fit a number of official criteria, as well as, as it was rumored, some unofficial criteria too.

There was also the possibility to get the raw material by purchasing the company with the rights.

AND AS THEY ARE NOW

Now people are waiting for the new code to be combined with the sub-laws, which should finally

be adopted in October. These changes will last until 2009, and as it seems, should be the only existing mechanism of the new forest laws before then. Previously however, only secondary market and investment projects had existed.

AND WHAT WILL BE

The new Forest Code provides cutting rights distribution for both Federal and Regional Russian authorities.

The federal authorities have the right to distribute through the mechanism of priority investment projects.

And the regional authorities can distribute both by priority investment projects and by the auction system.

Let's examine the details in how this will work more closely.

FEDERAL AUTHORITIES

The only mechanism through which the Federal Authorities can give the right to cut the trees is the priority investment project.

Basically, it works as follows: if a company wishes to develop a wood processing enterprise in Russia, it declares its plans to the Russian Government.

The Ministry of Natural Resources is responsible for evaluating whether the project fits the criteria, and if so, authorizes the right to cut.

WHAT IS THE CRITERIA?

The criteria is rather simple and logical: the amount wished to be invested is the main point, and we shall not touch upon the others in this rather short article.

In the proposed projects you have 3 main steps.

If you invest 300 mln rubles or more, you have the right to acquire leasing with a minimum stumpage price, which is established by the

Ministry of Natural Resources. Otherwise, your project would not be profitable.

You can also export your production free of any export taxes, as well as import machinery without paying anything.

Please note that if you don't invest according to the project, your penalty would be that you pay the difference with the full stumpage price.

But who will make the final decision?

THE DECISION MAKER

For this purpose, a new authority called the Forest Board was formed by the Ministry of Natural Resources. It is governed by Minister Trutnev and his deputies – Temkin, Roshuprkin and Chernov.

The secretary of the board responsible for all the technical work is also from the Ministry.

Thus, the Ministry now erects the criteria, and then decides who fits the criteria.

The other members of the board do not appear to have any real power in making decisions, but of course their voices are heard in preparing them.

The representation of the board is as follows:

Of 67 board members, 25 (37%) represent the Ministry of Natural Resources. 22 others are regional executive authorities. And 23% are business and professional association representatives, and scientists. We should also mention here that the business is represented by Ilim Pulp, which is the main wood industry company in Russia, and is likely to be sold partly to the International Paper and Region Company, which is the Moscow Investment Fund aggressively investing in wood assets in Siberia and in the Far-East.

So the structure is quite clear. And to my mind it is good—simply because it works. Does the regional forest governance differ a lot?

THE REGIONAL AUTHORITIES

The Regional Authorities are represented by the New Forest Board. But there are only a few representing the main wood regions.

The other thing is the responsibility for holding auctions. It would be quite logical if the guys

from the regional branches of the federal wood agency would come to work in the regional governments as the ones responsible for cutting rights distribution, only because they are specialists and they have their old contacts with the Federal Wood Agency.

Maybe the regions could also be given the rights to distribute the forests through the priority investment projects—they are now lobbying for this opportunity. Anyway, it requires time to understand how this could be actualized.

But one important thing here should not be forgotten:

The federal government should now, through the mechanism of the Forest Board, have more control over cutting rights distribution on the regional level.

And what are the main regions in Russia for the wood industry?

THE REGIONS BRIEFLY

Siberia and the Far-East are of course the most important here. And there are two main drivers: the biggest world markets for final products, which are the United States and Japan; and the biggest world market for raw material, which is China.

There are two main value chains in the world, both by volumes and by types of development: Russia–China–United States and Japan; and Southeast Asia–China–United States and Japan.

Siberia and the Far-East are members of the First chain on the regional level.

This is why their role should not be under-evaluated.

And it will be very important for their regional authorities to get the right, intensive and qualified position in foreign industrial affairs on the matters of sustainable forestry. This is only because the matter could bring big profits in the case that it must be dealt with, and big losses otherwise.

THE SUSTAINABILITY

Illegal logging in Siberia and in the Far-East is widespread. According to data from the World Bank, about 50% of the logging in these regions is illegal now. International competition in the

wood industry leads to increasing pressure, both on governments and major retailers purchasing final wood products from Chinese factories. This is evidenced in an article published by The Washington Post that stresses the issue, entitled "Corruption Stains China Timber Trade." This pressure should definitely lead to increasing pressure on Russian federal and regional wood authorities responsible for cutting rights distribution.

And in this case it is very important for them to develop a control system which fits all the international requirements. Chinese buyers should adopt the timber certification programs that are being developed in other countries, such as those adopted in the US and Britain. These programs have been developed to ensure that wood comes from sustainable logging operations.

The main competitor of the Russian Wood Industry here is Canada. China's emergence as a major exporter of plywood, furniture, and other wood products has cranked up the competition for Canadian manufacturers. And Russia should closely cooperate with the competitors in order to make everything clear.

BUT HOW SHOULD THIS CONTROL BE ORGANIZED?

The rise of Russian log importing to China has been dramatic during the past years. It increased by a factor of 21 during the period from 1997–2005, from 0.95 to 20 mln m³. How could this 20 mln m³ annual increase have been controlled? The beginning of the process was already initiated by the Irkutsk Regional Authorities which are implementing the system of wood stocks (formerly called the wood terminals). Briefly, this is a system which provides only big companies with the right to load roundwood on railway wagons. One thing this leads to is the concentration of logs flowing into the hands of the biggest industry players. But another, which is the most important for us in trying to understand the development of a new system of forest governance in Russia, is the first step in the strengthening of state control. It is clear because most of the wood is transported through the railway, and it is easier for state authorities to operate with fewer railway stations and companies. A double system of control, both on railway stations and on border customs, would also be good.

But one should mention that it is definitely good for creating a new sustainable system of Russian forest

practices, in that, with the implementation of this system, international sustainability organizations could better cooperate with Russian authorities. Together with the implementation of wood monitoring from Sputnik, it creates a new, clear and effective system for the control of forestry practices. (In 2006 wood monitoring discovered 1.2 mln m³ of illegal logging, according to the Federal Wood Agency – not so bad for a start.) Hence, this is the right time for investors to think about cooperation with Russian authorities on matters of investing in the Russian wood industry.

THE RIGHT TIME FOR COOPERATION WITH NEW RUSSIAN FOREST AUTHORITIES

And we just forgot to mention one very important thing: the roles of different non-commercial organizations. The reforms in Russia are creating a new role and place for different organizations through which society could impact the industries, and industries could work with society. The key role here is played by the Public Wood Council, which was created by the Federal Wood Agency. Through this council, such organizations as Greenpeace, WWF and others could work directly with the Ministry of Natural Resources. On the first meeting of the council, the situation with forestry reform was discussed.

THE NEW ROLE OF THE FEDERAL WOOD AGENCY

In the new role of the Federal Wood Agency it is interesting to mention two important things. As it was said by Agency Chief Roshupkin, the regional agency branches will become new analytical centers. They will have 3 main tasks:

1. Give an economical evaluation of forests and how they are used, including wood processing.
2. Give the technological estimation of Russian forest assets.
3. Provide interaction with law-enforcement and other bodies concerning law in the wood sector.

Centers which will have priority in international value will be the Northwest and Far-East Centers. And one should add that this is clear due to the importance of these regions as raw material

providers for the main wood industry chains. Through these centers, for instance, the work with FLEG should be coordinated.

So one can see that in Russia, a new system of forest industry has developed with a clear configuration. It can be argued whether this is good or not good, but it is workable, because it is more or less clear with whom responsibility lies.

If you have a priority investment project, you could go from the Ministry of Natural Resources to the Wood Board.

If you have to discuss the sustainability of things, you could go to the Public Wood Council and discuss them openly.

If you want to participate in the wood auctions, you should go to the regional governments' wood committees with your offer.

And if you want to be informed on what is for sale, you go to the Federal Wood Agency's regional analytical centers and get the answer.

Of course, the system does not exist yet – it is in the process of development. Time must pass before we can see the results. But they are guaranteed because the Russian government has already decided on its new, stronger wood policy.

SOME CONCLUSIONS – CUTTING RIGHTS IN RUSSIA – TO GET OR NOT TO GET?

The Russian President has shown his will to comply.

The new code has been adopted, and a new system of cutting rights distribution in Russia has been implemented.

The situation appears as though investors are standing at the open gates like confused guests, but are afraid to pass through – they are calculating risks.

Which risk is bigger: to get cutting rights in Russia and lose them for some reason of system instability, or not to get them and lose them in competition for raw material in the Chinese market (which has more and more come to mean the world market).

Wood industry giants are taking the first steps forward toward the Siberian and Northwestern coniferous oceans.

International Paper announced its plans to deal with Ilim Pulp. The most profitable activity here is 7.5 mln m³ of annual harvesting in Russia.

And this is 1.8 mln ha with 330 mln m³ of forest inventory in the Irkutsk region, the most dense coniferous wood stock in the world, and closest to the Chinese border.

There are two questions here for IP (as well as for any other possible investors in the Russian forest sector): What is the quality of Ilim Pulp cutting rights? What is the actual price that International Paper could offer them?

These questions could not have definite answers until the new system of cutting rights distribution can be implemented and approved by the market.

There are two mechanisms for this system: auctions, and distribution through prioritized investment projects.

Auctions have taken place before and are not new.

But there are no "instructions for use" for prioritized investment projects.

The Russian Government reserved the right to sell the cutting rights without auctions for the most socially important projects of creating new Greenfield enterprises.

This is the form of concession, and in October the rules for it should finally be issued by the Russian Ministry of Economic Development.

So the companies are participating in preparing them, or could participate – otherwise the rules will be made without them (with all the ensuing results)

And until the time that industry leaders can initiate serious investments, the portfolio of Russian cutting rights will be formed by different Russian investment funds, as it is done now.

This means that the price is rising, and the risks are decreasing.

Igor RYVKIN

RUSSIAN TIMBER INDUSTRY DEVELOPMENT PROSPECTS

The Russian timber industry can and must become one of the economic growth drivers along with the oil and gas sector. There is every reason for this. The industry's resource base is very much similar to that of the oil sector. Russia is in the lead in terms of the majority of indicators which characterize the availability of timber resources. If we take a look at the distribution of timber resources worldwide, we will see that Russia accounts for 82 billion cubic meters of timber reserves, including 58 billion cubic meters of the most valuable softwood. This is the highest indicator. Next comes Brazil with 81 billion cubic meters. The US is in third place with 35 billion cubic meters. The high quality characteristics of our softwood and hardwood have won international acclaim.

The timber industry accounts for 1.2% of Russia's gross domestic product, 4% of its industrial output, and over 4% of export revenues in foreign currency. In 45 constituent subjects of the Russian Federation, the ratio of the sector in the regional economy is considerably higher: from one-tenth to half of the region's total industrial output.

Russia has a huge potential for increasing timber supply, which will be equally beneficial to the environment, the state budget, and the timber business. In the economically accessible area alone this is approximately 120 million cubic meters a year.

At the same time, increasing timber supply as such is not and will not be the main target in developing the national timber industry.

Export of timber has grown 150% over ten years. Russia accounts for 40% of unprocessed softwood supply in the global market. The regime for exporting unprocessed timber has been extremely liberal over the past years.

At the same time, Russia lags far behind nations with developed timber industries in terms of timber processing, for example, in the pulp and paper sector. While pulp and paper products account for over 60% of foreign currency revenues from timber-based materials throughout the world, the figure is just 28% in Russia. First in the world in terms of timber reserves, we are just 11th in terms of paper and cardboard manufacture, behind countries with limited timber resources. The niche in sawn timber and panel products manufacture has not been filled either.

This situation affects the life of Russian citizens. People in regions have no opportunity to realise their potential. A lack of jobs makes it impossible to improve living standards, while a lack of companies in regions prevents the federal and regional budgets from obtaining more tax revenues.

People, the business community, and the government can no longer be content with the situation.

Given the continuing economic growth, we forecast a steady increase in domestic demand for wood.

Considering these factors, Russian President Vladimir Putin in April 2006 demanded that the government stimulate the accelerated development of domestic timber processing and import substitution, and accordingly, revise our export policy.

Under the new regulations, on 1 July 2007 customs duties on unprocessed timber grew by 20% of the supply price, but at least €10 per 1 cubic metre of unprocessed timber. Customs duties will grow to 25% (but at least €15) from 1 April 2008 and to 80% of the price (but at least €50 per 1 cubic metre) from 1 January 2009.

This decision sends a clear signal to both Russian cutters and foreign buyers of timber. The decision passed is fully compatible with our national interests and international standards. The reorientation of the nation's timber industry from exporting to processing resources is inevitable.

Success in making these plans come true is only possible subject to well-coordinated cooperation of the government and the business community. Active encouragement of the construction of processing facilities on the part of the state in the form of relevant tax benefits and preferences for investors will significantly reduce the period for implementing advanced processing in Russia. Along with an increase in customs duties on unprocessed timber, programs will simultaneously be developed for the wide use of products of the woodworking industry, in particular wooden house building. This program is a significant contribution to the Russian national project for providing affordable accommodation to the nation. Wooden house building is the element that links two other priority national projects: Affordable and Comfortable Housing for Russian Citizens, and Agribusiness Development. A presentation of an experimental settlement of thirty-two wooden frame houses was held in Novomirsky, Azov District, Rostov Region, on 2 June 2007. The co-ordinator of the construction of the settlement is the non-profit-making partnership Association of Wooden House Building. The settlement was built as part of implementing the national priority project Agribusiness Development, the federal program Social Development of the Village to 2010 and the regional targeted program Government Housing Support for Citizens.

Experts estimate that, given the optimistic scenario, total wooden house building will amount to 17.5 billion US dollars a year by 2015, which will render a powerful development impulse to timber industry branches such as: timber sawing, laminated wood products, panel production, and the manufacture of wooden insulation materials, furniture and fuel pellets.

Larger-scale reform of the timber sector of the Russian economy is under way for the same purposes.

The new Forest Code of Russia came into effect on 1 January 2007. The timber industry has undergone a fundamental reform. The regions have been provided with all the key rights and powers in timber industry management. The responsibility and rights of companies developing timber resources have been expanded. This year, the government will cease to simultaneously control the timber industry and run timber business. Limitations on the use

of timber resources that are incompatible with the generally accepted international practice have been lifted. Access to leasing timberland plots for a period of up to 49 years is now granted by auction.

The government retains ownership of forests, but at the same time provides fundamentally new possibilities for running the timber business, attracting investment, and learning new technologies.

In this context, the entry of major foreign companies into the Russian market can only be welcomed. Their financial and technological potential can make a substantial contribution to this country's economy.

The development areas outlined for the Russian timber industry by the government of Russia and codified by the national legislation open up great opportunities for foreign investors in terms of the advanced processing of timber.

At the same time, the government is interested not in growth in capital investment in the timber industry as a whole. A significantly faster growth in investment should be demonstrated by innovative areas ensuring the structural and technological modernisation of the industry.

Under way now is a comprehensive interim assessment of the implementation of the scenarios for Russian timber industry development to 2015, proposed in 2004. The timber industry is developing at a rate closest to the optimistic forecast, according to provisional information. This has become possible owing to the improvement of the investment climate in the last two years and the passing of the new legislation governing relations in the timber industry. Panel manufacture is one of the most dynamically developing branches. New companies are entering the market. A plant for manufacturing fibreboard using the wet method was commissioned this March, and this is the only producer of this absolutely

green heat-insulating and sound-absorbing material extremely popular in Europe. Thirteen investment projects for commissioning oriented strand board facilities are being implemented. OSB is a new material which has been actively used for furniture production over the last three years. The new Forest Code has played the most important role in improving the investment patterns in the timber industry.

We are confident that foreign investors will make the right decisions on their participation in business projects in the Russian Federation. In turn, the Confederation of Associations and Unions of Timber, Pulp and Paper, Woodworking and Furniture Industries are ready to provide assistance and support to all investors willing to start their businesses in Russia.

Valery Saikovsky

President of Confederation of Associations and Unions of Timber, Pulp and Paper, Woodworking and Furniture Industries

ON RUSSIA'S BEHALF

Industrialized Western nations realized a long time ago that global industrial goals are to be gained by pooling the potentials of individual manufacturers and industrial alliances. There are several alliances in Europe today uniting timber industries of various countries: the European Organization of the Sawmill Industry (EOS), European Panel Federation (EPF), European Federation of Wooden Pallet and Packaging Manufacturers (FEFPEB), European Federation of the Parquet Industry (FEP), European Federation of Fiberboard Manufacturers (FEROPA) and the United European Confederation of Woodworking Industries CEI-Bois, bringing together several major European woodworking industry alliances.

A similar organization was formed recently in Russia. It is the non-profit partnership Confederation of Associations and Unions of Timber, Pulp and Paper, Woodworking and Furniture Industries created by decision of the Stewardship Council of the International Forestry Forum on June 16, 2005.

As the Russian tradition goes, harnessing is long but riding is fast. Over the past two years the Confederation has asserted its standing, and its head Valery Saikovsky is perhaps the busiest executive in the industry. The goal pursued by the Confederation since its inception has been a daunting one: to represent Russia on the world market and build up the competitiveness of its forestry and timber complex. A brief review of the Confederation's activities over the past years reveals that it has been making steady progress toward that objective.

Last winter Valery Saikovsky joined the delegation led by President Putin at the Russia-Saudi Arabia and Russia-Qatar business forums. The two Arab nations displayed great interest in collaboration with Russia in manufacturing, smelting, the timber industry, tourism and finance. Russia showed similar interest in attracting the resources of these countries to the development of its economy.

In the spring of 2007 the Confederation attended the Bio-Fuel Congress and initiated the formation of the National Bio-Energy Alliance with a view to coordinating the efforts of commercial and non-profit organizations, as well as federal and regional state authorities in attaining the strategic goals of the bio-fuel industry, improving its competitiveness both at home and abroad, and promoting awareness of the industry's potential in Russia.

In the second half of April Valery Saikovsky took part in a meeting of the European Federation of Fiberboard Manufacturers. The meeting discussed the long-term objectives of the Federation, and based on its decisions a resolution was adopted and later discussed at the Federation's General Assembly meeting in Montreaux.

Three days later representatives of the Confederation attended a meeting of the Public Council on housing construction under the Chairman of the R. F. Council of the Federation. Current issues in increasing the supply of affordable housing were discussed at the meeting. The Confederation supports the development of wooden house-building as part of the national project "Affordable Housing to Citizens of Russia," and the draft resolutions of the meeting included an item on advancing low-rise wooden house-building and increasing the supply of competitive wooden building materials.

In May Valery Saikovsky attended the Russia-Sweden forum which discussed among other things the issue of attracting investment into the Russian timber industry. At the forum the Confederation outlined the opportunities it offers to interested timber, furniture and financial companies from Sweden and Finland, and especially its experience in protecting the interests of the companies operating in the industry and in building up relationships between businesses and state authorities.

Members of the Confederation also attended the 11th Economic Forum.

August was perhaps the busiest month for the top officials of the Confederation. Valery Saikovsky traveled to the Hunton plant in Norway where he saw the entire technological process of Europe's most efficient production of soft fiberboards, or softboards used for sound and heat insulation, wind protection, roof insulation, wall lining, and as a substratum for warm floors. Norwegian colleagues shared their experience of production organization at the plant and demonstrated to Confederation officials the technologies of injecting various additives into the softboards to impart to them specific properties required on the market.

From Norway the delegation travelled to Sweden where it visited saw mills, laminate product facilities and wooden house-building companies.

The Russian delegation was invited by the President of CEI-Bois Mikael Eliasson.

This invitation came as no surprise: Swedish woodworking companies view Russia as a natural strategic partner and are therefore interested in collaboration with the Confederation. Russia may become a major supplier of the raw stock while the Swedes are planning to invest in saw mill construction in Russia.

Mikael Eliasson accompanied the delegation on a tour of various production facilities of Setra and described the principal technologies involved and the area of the application of the materials produced. The Russian delegation was very much impressed by the production potential of the Swedish plant, high productivity, high product quality and an excellent organization of workplace safety.

Valery Saikovsky noted that, "of special interest to us was the fact that workers move from one technological stage of the overall process to another, this enables them to focus their attention on each stage of the process and prevents them from developing fatigue from repeating the same actions all day long. This also makes workers interchangeable and aware of the details of each stage of the process, which of course contributes to the high quality of the output."

Also in August, the Confederation attended negotiations organized by the World Wildlife Fund to protect the environment in the Baltic Sea.

At present the president of the Confederation participates in a session of the VTB task force monitoring the implementation of the project "Scenarios for the development of the Russian forestry complex until 2015". A report on the issues involved will be made at the next International Forestry Forum.

According to Managing Director of the Confederation Yulia Potapova, Valery Saikovsky intends to voice support for CEI-Bois at the Forum, which back in 2002 initiated Roadmap 2010 for the European woodworking industries, clearly defining the current status, objectives, and mechanisms of attaining them. Since then the program has proved itself viable and efficient in the West, and the Confederation is prepared to help CEI-Bois with regard to issues related to Russian forests. Valery Saikovsky also intends to propose, relying on the Western experience, that the Russian Forestry Complex be developed along similar lines and that a Roadmap of the Russian Forestry Complex be introduced for 2015. This will of course



President CEI-Bois **Mikael Eliasson** and President of the Confederation **Valery Saikovsky** at meeting concerning environmental protection of the Baltic region in Stockholm

require extensive marketing studies, a detailed scrutiny of the current status of the industry, and an extra effort to set attainable strategic goals. As a result of these efforts, the Russian Roadmap would represent an impartial description of the ideal position of the country's forestry complex and provide the basis for a step-by-step development strategy until 2015. The Roadmap would offer a system of reference for understanding the best ways of developing the forestry complex and could become an integral part of the overall strategy of Russia's socioeconomic development and thereby contribute to national economic security.

Another important proposal that Valery Saikovsky intends to make is the creation of a self-regulating organization that would project the functions of the state upon businesses so as to speed up the resolution of current industry issues and streamline the interaction between individual companies. The main stumbling block to date here has been the adoption of an appropriate law which has been delayed for several years. However, the law on self-regulating organizations will be passed by the end of 2007. The law will provide for setting up structures with a special legal status very similar to state agencies, but funded by the operators of specific market sectors. "Excessive" state functions will later on be transferred to self-regulating organizations. The authors of the bill believe that self-regulating organizations must act as middlemen between state authorities and businesses.

Yvetta KRASNOGORSKAYA

PINE-SCENTED INVESTMENTS

A new player – Investlesprom Holding Company, has appeared in the Russian forestry industry. Having declared its entrance to the market at the beginning of 2007, it is likely to become one of the largest industry holding companies in a short amount of time. It was first established in 2006 with Kama, Segezhsky and Sokolsky PPM as its first purchases. Four divisions – logging, timber processing, pulp and paper, and paper package production – constitute the holding. Thus, its scope of activity embraces the entire logging, deep timber processing and quality paper product manufacturing cycles.

Investlesprom has been developing actively. It has acquired National Timber Industry Company (NTIC) and Medvezhjegorsk LPH in just the last two months.

NTIC includes timber industry enterprises situated in the Vologda, Ulianovsk, and Arkhangelsk regions, as well as in the Karelia Republic. They are, along with the Ustjales and Ilinskiy lesozavod timber-processing complexes, Kipelovo LPK, Kovzhynskiy and Kirillovsky LPH, Severlesprom CJSC, and Sokolskiy DOK.

NTIC rents forest areas amounting in total to more than 650 thousand hectares. The logging enterprises of NTIC Group harvest more than 1 million m³ of merchantable wood a year. Round timber processed at the timber-processing enterprises of the company amounts to more than 500 thousand m³ with a production volume of around 250 thousand m³, while 120 thousand m³ of saw-timber are exported.

Dmitry Zuev, the Managing Director for the Les Division of Investlesprom Holding Company, stated that, "this deal has the same aims as similar purchases of logging and timber-processing assets. They are optimizing harvesting and strengthening raw stock security of the holding's complexes." Indeed, taking into account this purchase, Investlesprom has acquired a relatively huge source of raw materials. Investlesprom belongs at the moment

to the largest timber industry enterprises of Russia, with a harvesting volume coming to two million m³, and a sawn-timber production volume reaching 600 thousand m³.

Medvezhjegorsk LPH, another multiple-discipline factory dealing not only with logging but also with saw-milling has been added to Investlesprom this August. The holding company plans to invest more than 600 million rubles in this company's development (including timber mill and harvesting and road-building machinery modernizing, as well as loan restructuring) in two years. According to Dmitry Zuev, "it was five years ago when the first round of negotiations on the factory purchase took place. At that time Segezhsky PPM was uniting logging factories in the Segezhsky region and adjacent regions of Karelia into its holding. Today Segezhsky PPM has become the part of Investlesprom Holding Company that owns forestry assets in several regions of Russia and has broadened its sources of raw materials. The recent negotiations have been a success. Medvezhjegorsk LPH will become a part of the holding company after the required procedures of federal anti-monopoly services approve the transaction. Medvezhjegorsk LPH is a multiple-discipline logging and saw-milling factory. We suggest increasing forest cutting during the first stage: today, due to many reasons, the factory is only developing 80% of the rated felling area. We will buy auxiliary equipment and develop road building on the leased areas." The saw mill belonging to MLPH produces up to 100 thousand m³ of sawn-timber a year. The Les Division comprises LDK Segezhskiy, so Investlesprom Holding gains a good opportunity to optimize saw-milling according to customers' demands and sort it by wood type and assortments. There is no doubt that saw-milling production has to be modernized in both factories. In compliance with that, up to 800 million rubles in investments have been provisioned.

Dmitry Zuev has also mentioned that there is another enterprise in the Medvezhjegorsk

region belonging to Investlesprom Holding. It is Karelia DSP OJSC, a company that manufactures wood boards.

The Les Division plans to maximally optimize the flow of raw materials supplied to the timber-processing factories of the holding company: Segezhsky PPM, Segezhsky LDK, Medvezhjegorsk LPH and Karelia DSP As MLPH enters the holding, the main source of raw materials has increased up to 700 thousand m³ per year. This serves as good support for Segezhsky PPM's long term plans of doubling its production volume.

Earlier, Investlesprom purchased several large factories in Karelia, the Vologda and Kirovsk regions, and in Permskiy krai.

Today the holding company comprises Segezhsky PPM (including Segezhska Packaging, the European paper bag production subdivision), Kama PPM, Sokolsky PPM, Karelia DSP, the Novaja Vyatka wood board complex, and Vyatka-Les-Invest. These factories manufacture paper for bags and newspapers, paper bags, different types of cardboard, saw-timber chipboard, fiber board, and base felt.

A year before we found out about the establishment of Investlesprom, the consortium of investors associated with the Bank of Moscow started to buy shares of their forestry enterprises.

Mikhail Busygin, who was Minister of the Forestry, Pulp and Paper and Woodworking Industry of the USSR in the 1980s, has become the chairman of the holding board of directors. He said that, "the holding is in fact the modern analogue of the former Ministry of the Forestry, Pulp and Paper and Woodworking Industry. To tell the truth, the Ministry was uniting 3,640 USSR enterprises with 2.5 million employees. The social and political structure was different, too. However, the core essence and strategical aim of the business is the same."

The strategical aim of Investlesprom, according to shareholders' intentions, is to turn the holding into Russia's biggest vertically integrated timber company. The governing body intends to achieve leadership in all the subdivision-related market segments and niches. In particular, they plan to increase the in-house logging volume at least up to 50% from the holding company's needs, and to use widely the best technical and technological solutions.

Nikita Leonov, the general managing business director for Ilim group OJSC, stated that "timber industry consolidation processes grow in momentum worldwide. Russia has followed this trend more and more. Thus, new investing opportunities and a modern level of development are provided to Russian companies establishing large holdings." Timber Industry Confederation Executive Director Denis Sokolov considers "such a situation to be predictable – large timber companies coming forth and timber industry complex enlargement are a must."

Just after Investlesprom Holding entered the market, its governing body announced its plan to invest funds into development of the affiliated companies and into new ones being built in the next several years. The holding priority investment projects include:

- increasing BDM № 9 of Segezhskiy PPM production volume, as well as modernizing it
- implementing a program for PPM Kama facilities restoration
- preparing a Sokolskiy PPM development strategy involving switching to light enameled paper manufacturing
- Karelia DSP and Novaja Vyatka wood board complex capacity expansion

Investlesprom also plans to implement two building projects for the Viatka and Tomsk plywood industry complexes. For example, in the Kirovsk region the construction of a modern factory with a production capacity of 90 thousand m³ of plywood a year has been planned. The plywood is mainly intended for exporting. The Viatka plywood complex construction budget is 2.8 billion rubles. The complex is expected to be launched at the end of 2007. Its first stage was commissioned in August, 2006, while the second stage is planned for the end of 2007. The project investments will come to 200 billion rubles.

The expected amount to be invested is no less than 46 billion rubles, providing grounds for a possible increase in the number of the holding affiliated companies in the near future. Indeed, the company has serious intentions to establish the largest timber-processing holding, taking into account its purchases of new assets.

Angelila BOLMAT

THE RUSSIAN FORESTRY SECTOR IN THE GLOBAL FOREST PRODUCTS MARKET:

40 **TRENDS, OUTLOOK AND OPPORTUNITIES FOR DEVELOPMENT**

Wulf Killmann and Adrian Whiteman
Food and Agriculture Organization of the United Nations

Among reviews of Russian LPK prepared by Russian authors, we have also decided to bring to your attention a view on Russian LPK from the outside, an opinion of the independent experts Wulf Killmann and Adrian Whiteman (Food and Agriculture Organization of the United Nations). The authors carried out the present research in the autumn of 2006. However, it will not be outdated for a long time. The research covers the entire period of the wood industry in the Russian Federation since 1990, and reveals the industry's global tendencies, as well as allows for some of its forecasts up through 2020. Besides that, the authors compare LPK of Russia with LPK of other countries, showing Russia's competitive advantages – or the lack there in.

Recent years have seen tremendous changes in the global forestry sector. New and ever larger demands have been placed on forest resources and in the marketplace for forest products. Rapid growth of emerging economies has altered global patterns of supply and demand and technological change has resulted in new opportunities for growth and development. Changes are also occurring in the Russian forestry sector, as the country is adapting to a market-based economy with significant potential for investment, production and trade in forest products.

This article describes the current status of the forestry sector in Russia, in terms of the size of the forest resource, production, trade and economic performance. It then briefly presents some trends and projections for the production and trade of forest products, based on FAO's forestry sector outlook studies. Section 3 of the article discusses some of the opportunities and challenges for forestry sector development in Russia and the final section describes some of the ways that FAO provides assistance to member nations, which may be of interest to forest managers and policy makers in Russia.

CURRENT STATUS OF THE RUSSIAN FORESTRY SECTOR

Key statistics for the Russian forestry sector

The Russian Federation has by far the largest forest resource of any country in the World, with almost 50 percent forest cover, amounting to 809 million hectares of forest or 20 percent of the World's forests (see Table 1). Russia is also a significant producer and exporter of industrial roundwood and sawnwood. However, in contrast to the size and importance of Russia in these

markets, Russia accounts for a relatively modest share of global production and trade of more processed products (such as wood based panels, pulp and paper). Furthermore, because of the higher value of these more processed products, Russian exports of forest products amounted to only USD 6.4 billion (or about four percent of global forest products exports) in 2004.

STRUCTURE AND COMPOSITION OF THE SECTOR

Table 2 shows the structure and composition of the forestry sector in Russia, in terms of the productivity of the forest resource and the proportion of production that is exported each year. It also compares these statistics with averages for Western Europe, Eastern Europe and the World.

With respect to the forest resource, forests in Russia have a stocking of about 100 cubic meters (CUM) per hectare and an annual increment of 1.1 m³/ha/year. These figures are relatively low when compared to the rest of Europe, reflecting the significant proportion of the forest estate that is found at high latitudes. However, the stocking level is about average for the World as a whole.

With respect to the utilisation of the resource, the harvesting intensity is relatively low, at only 0.2 m³/ha/year, which is much lower than in the rest of Europe and the World as a whole. As a result of this low harvesting intensity, only 15 percent of the annual growth in the forest is harvested each year. This is very low compared with the rest of Europe, where the ratios of fellings to increment are 28 percent and 42 percent in Eastern Europe and Western Europe respectively.

Table 1

Key statistics for the Russian forestry sector

Statistic	Russian Federation	Share of World total	Rank in the World
Forest area	808.8 million ha	20%	1st
Production			
Industrial roundwood	134.0 million m ³	8%	3rd
Sawnwood	21.5 million m ³	5%	3rd
Wood based panels	7.2 million m ³	3%	5th
Wood pulp	6.9 million MT	4%	7th
Paper and paperboard	6.8 million MT	2%	12th
Exports			
Industrial roundwood	2,338 million USD	25%	1st
Sawnwood	1,518 million USD	5%	5th
Wood based panels	536 million USD	2%	15th
Wood pulp	703 million USD	3%	7th
Paper and paperboard	1,244 million USD	1%	17th
All forest products	6,405 million USD	4%	8th

Note: forest resource data is for 2005; forest products data is for 2004. Sources: FAO (2006a and 2006b)

Table 2
Structure and composition of the sector

Statistic	Russian Federation	Western Europe	Eastern Europe	World
Forest resource				
Total growing stock (CUM/ha)	100	135	177	100
Annual increment (CUM/ha/yr)	1.1	4.7	4.5	n. a.
Harvesting intensity (CUM/ha/yr)	0.2	2.0	1.3	0.4
Fellings/increment (percent)	15	42	28	n. a.
Forest in public ownership (percent)	100	39	71	84
Exports/production (percent)				
Industrial roundwood	31	7	9	7
Sawnwood	59	43	43	31
Wood based panels	28	51	46	35
Wood pulp	27	28	23	24
Paper and paperboard	40	64	61	32

Note: forest resource data is for 2005; forest products data is for 2004. Sources: FAO (2006a and 2006b)

It is also worth noting that 100 percent of Russia's forests are owned by the state. This figure is much higher than in the rest of Europe where – along with some other countries – private forest ownership has been gradually increasing in importance. Other countries with significant forest areas and a high proportion of public forest ownership include: China; Indonesia; and Canada, but it should be noted that the dominance of the state as an owner of forest resources is gradually becoming less common all over the World.

The lower half of Table 2 shows the proportion of production that is exported each year (by volume or weight) for each of the main categories of forest products. It shows that a significant proportion of Russian production is

exported, which is typical for countries with large forest areas. In particular, a relatively high proportion of industrial roundwood and sawnwood production is exported. Exports of more processed products are also quite significant, but exports of wood based panels and pulp and paper are not as well developed as in other parts of Europe.

Figure 1 presents more information about Russian forest products exports. Overall, Russian forest products exports are split almost equally between Europe and Asia, with a very small proportion of exports to the Near East and other regions. This largely reflects the geography of Russia, which has significant forest resources in both Asia and Europe. In Asia, most forest products are exported to China and Japan and

Figure 1
Russia's main export markets in 2003

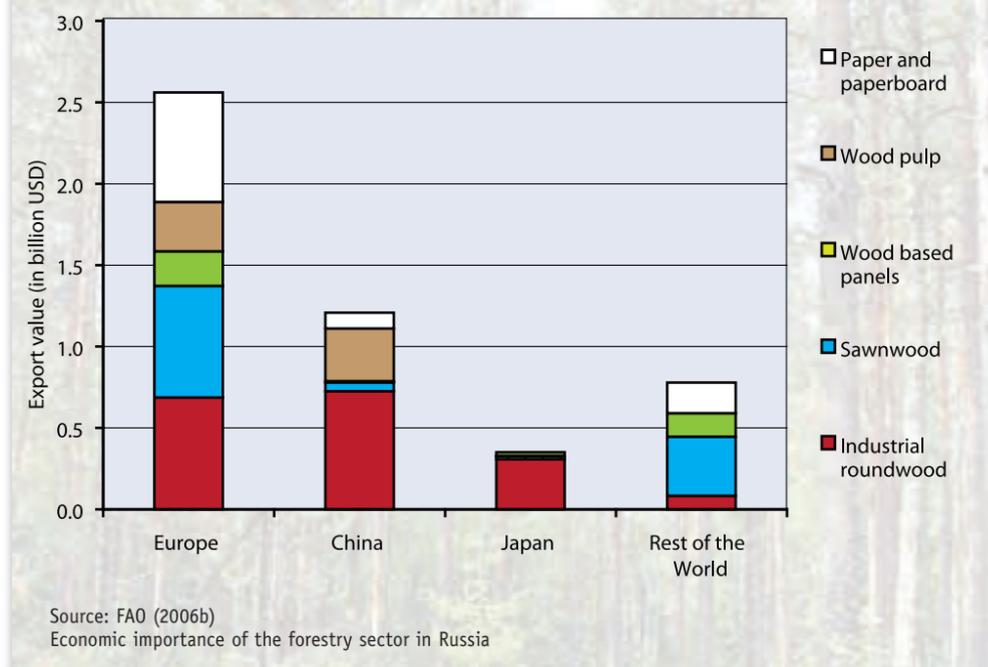
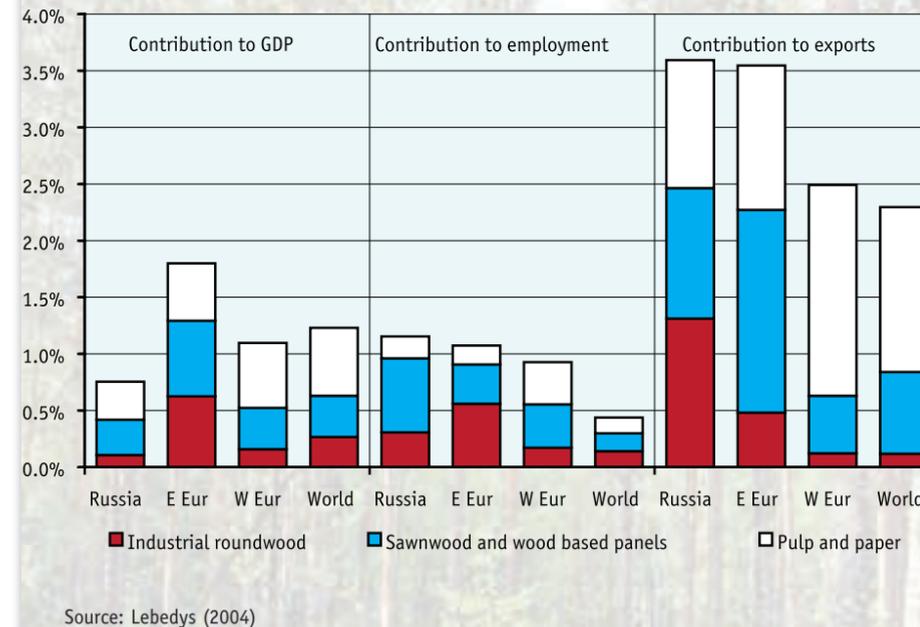


Figure 2
Economic contribution of the forestry sector in 2000



there has been rapid growth in exports to China over the last five years due to the high rate of economic growth there.

Europe and China each account for about 40 percent of Russian industrial roundwood exports (with most of the remainder going to Japan) and wood pulp exports are also almost evenly split between Europe and China. In contrast, almost all exports of sawnwood, wood based panels and paper and paperboard are sent to Europe, with China and Japan importing only small amounts of these products from Russia. This suggests that, in the markets for these products, Russia is more competitive in Europe than in Asia.

The economic importance of the forestry sector in a country can be shown in a variety of ways and Figure 2 shows three measures of this contribution, namely:

- the contribution of the sector to Gross Domestic Product (GDP) – calculated as the value-added in the sector divided by total GDP;
- the contribution of the sector to employment – calculated as employment in the sector divided by the total workforce; and
- the contribution of the sector to exports – calculated as the value of forest products exports divided by the total value of all merchandise exports.

The forestry sector in Russia accounts for about 0.8 percent of GDP, which is relatively low compared to Europe and the World as a whole. However, this is partly due to the significant contribution (to GDP) of oil and gas production in Russia.

The forestry sector makes a significant contribution to employment in Russia, particularly in the sawmilling industry. About 1.2 percent of the Russian workforce is employed in the sector, which is a higher proportion than elsewhere in Europe or in the World as a whole. This high level of employment benefits many individuals working in the sector, although the relatively low level of labor productivity that occurs as a result of this means that it is difficult to increase salaries and wages (figure 2).

Exports of forest products from Russia also account for a significant proportion of all exports from the country. Forest products account for about 3.5 percent of the value of all merchandise exports, which is similar to the importance of exports from Eastern Europe and higher than the importance of forest product exports in Western Europe or the World as a whole. In part, this may be due to the underdevelopment of other manufacturing sectors in Russia (and Eastern Europe).

It is also worth noting the differences between the composition of exports from Russia, Eastern

Europe and Western Europe. The value of exports from Russia is split almost equally between industrial roundwood, sawnwood and wood based panels, and pulp and paper. In Western Europe, industrial roundwood accounts for only a very small share of forest products exports and pulp and paper accounts for a huge proportion of the value of exports. The situation in Eastern Europe is somewhere between these two situations. These differences in the composition of trade suggest that the forest processing sector in Russia is not very well developed and that it is not yet able to take full advantage of the abundant forest resources available in the country.

ECONOMIC PERFORMANCE OF THE SECTOR

Based on the statistics shown above, Table 3 presents some measures of the economic performance of the forestry sector in Russia and compares them with other parts of Europe and the World.

The top part of the table shows the value added per unit of production (i. e. cubic meters of industrial roundwood, sawnwood and wood based panels, or metric tons – MT – of pulp and paper production). The figures show that the value-added from production in Russia is extremely low, particularly in the case of industrial roundwood production.

Value-added is the difference between the selling price of products and the sum of all non-labor costs used to produce them. Although the average price of products sold in Russia is probably somewhat lower than in other regions, this is unlikely to account for the very low level of value-added (particularly considering that a significant proportion of production is

exported). Therefore, these figures suggest that production costs in Russia are quite high.

The middle part of the table presents information about labor productivity in the three components of the forestry sector, measured as the value-added per employee. Again, these figures are much lower than in the rest of Europe and the World as a whole. This is due to both the relatively low levels of value-added per unit of output and the low level of output per employee. The comparatively low level of labor productivity is particularly noticeable in sawnwood and wood based panel production, where employment is very high. As noted in the previous section, after accounting for the share of value-added that is required to cover rents, interest and profits, the small amount of value-added remaining to pay labor restricts growth in wages and salaries for those employed in the industry.

The lower part of the table compares the average unit value of forest products exported from Russia with exports from elsewhere. In this case, the unit values of exports from Russia are somewhat lower than elsewhere, although they are quite close to the value of exports from Eastern Europe. To a large extent, these slightly lower prices can probably be explained by the long distances between Russia's borders and the major centres of forest product consumption in Russia's main export markets.

CONCLUSIONS ABOUT THE CURRENT STATUS OF THE RUSSIAN FORESTRY SECTOR

The information presented above shows that Russia has a huge natural advantage in the production of forest products, due to its abundance of forest resources. This potential for

Table 3
Economic performance of the sector

Statistic	Russian Federation	Western Europe	Eastern Europe	World
Value-added (USD per m³/MT)				
Industrial roundwood	2	39	19	43
Sawnwood and wood based panels	29	209	73	183
Pulp and paper	70	334	210	335
Labor productivity (VA per employee in USD)				
Industrial roundwood	1,040	37,213	4,497	18,398
Sawnwood and wood based panels	1,412	38,176	7,756	22,507
Pulp and paper	5,194	61,877	12,223	42,226
Average export value (USD per m³/MT)				
Industrial roundwood	56	73	60	77
Sawnwood and wood based panels	141	305	249	270
Pulp and paper	426	801	697	688

Note: export data are for 2004; other data are for 2000. Sources: FAO (2006b) and Lebedys (2004)

production far exceeds the size of the domestic market, so future growth in the sector is most likely to come from exports of forest products.

Success in the global forest products marketplace requires not only an abundance of forest resources, but also high levels of investment in capital and labor. Currently, the Russian forestry sector is quite export-orientated, but it exports a relatively small amount of more processed and higher value-added products. This suggests that there is not yet sufficient investment in the sector to support increased exports of such products and that the sector is some way from maximising the contribution that it could make to the national economy.

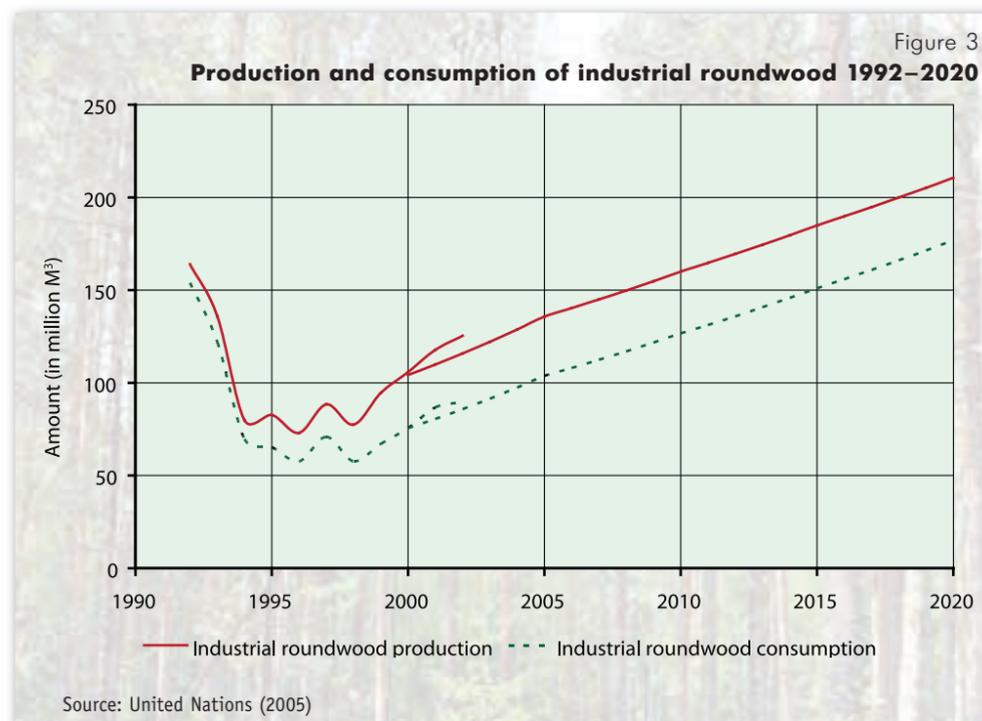
It is also interesting to note that the state still plays a major role in the forestry sector in Russia. While this does not necessarily place constraints on development, it seems likely that the arrangements for public forest management and administration could be examined to see if more could be done to promote investment and expansion in the sector.

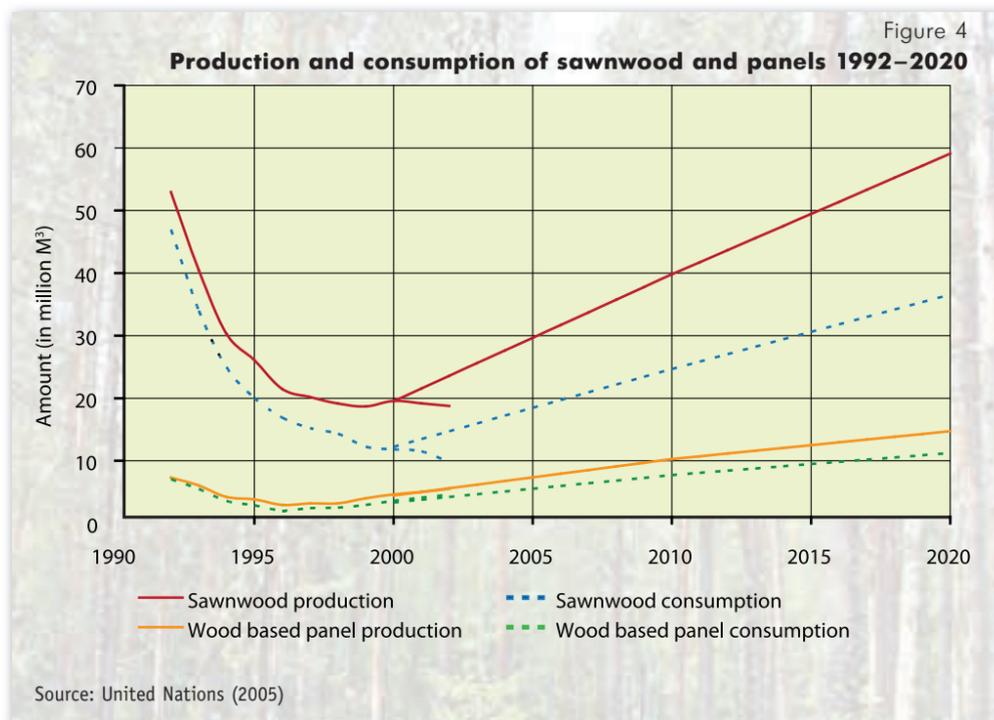
OUTLOOK FOR RUSSIAN FOREST PRODUCTS

FAO and the United Nations Economic Commission for Europe (UNECE) have been producing studies

showing trends and projections for the European forestry sector for the last 50 years. These "outlook studies" are a major output of the two organisations and are used by numerous different individuals and institutions for purposes such as: national policy development and planning; investment planning; and discussions with stakeholders about the future directions of forestry in countries or at the regional and global levels.

The most recent European Forest Sector Outlook Study (EFSOS) was published in 2005 (United Nations, 2005). It presents long term trends for supply and demand of forest products (roundwood, sawnwood, panels, pulp, paper, non-wood products) and services and an outlook to 2020 for all countries in Western and Eastern Europe and four major CIS countries, including Russia. It reviews trends for the forest resource, trade, markets and recycling. It stresses the future shift in the balance of the sector to the east and the importance of cross-sectoral issues (notably consequences for the forest sector of energy, environment and trade policies, which are examined in some detail). The study is based on a major collaborative effort by experts in the countries covered by the study, under the auspices of the UNECE Timber Committee and the FAO European Forestry Commission. The study identifies a number of major policy issues



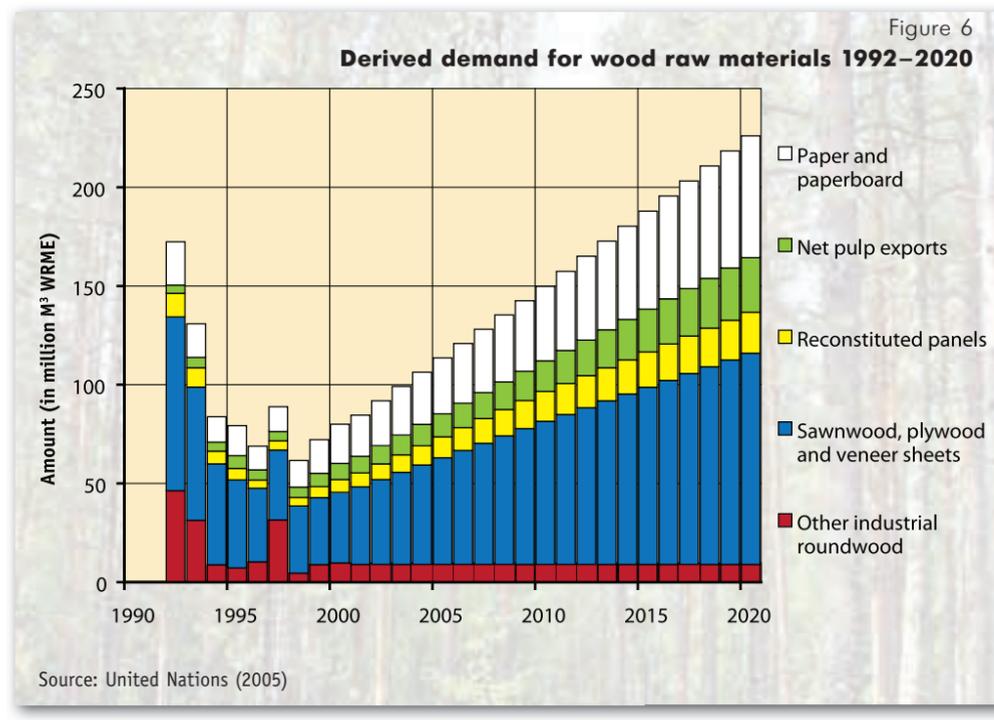
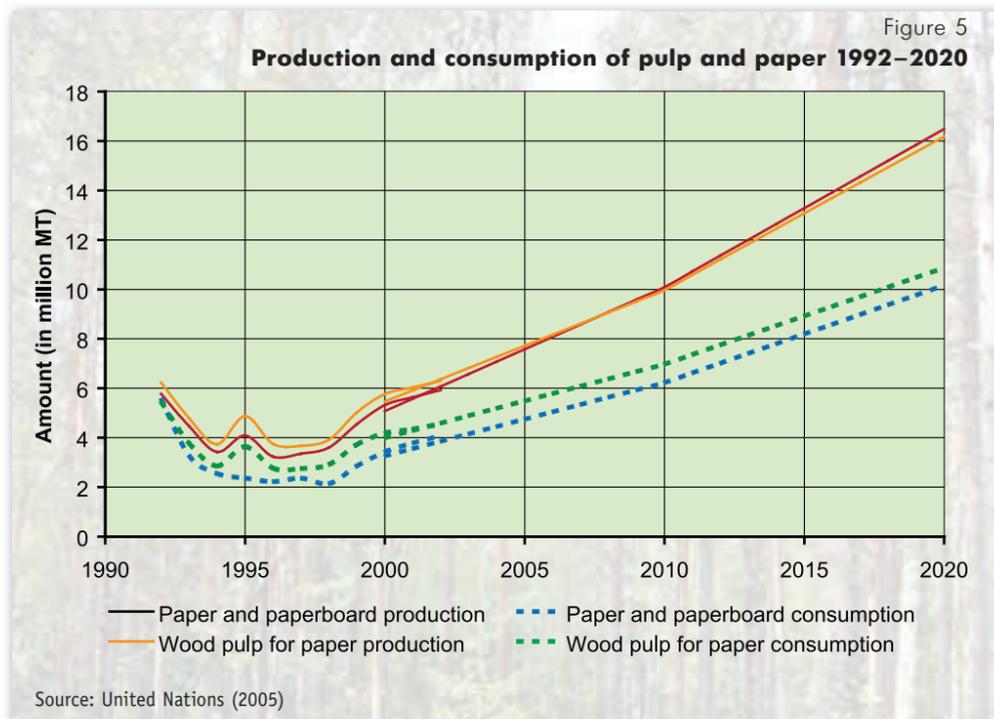


TRENDS AND OUTLOOK FOR INDUSTRIAL ROUNDWOOD

and proposes some policy recommendations, as a basis for future debate.

The following figures show the trends and projections for production and consumption of forest products in Russia from the EFSOS and are followed by a short summary of some of the main conclusions of the market analysis.

Figure 3 shows the trends and projections for industrial roundwood production and consumption in Russia from the EFSOS. It shows that production and consumption are projected to reach 210 million m³ and 175 million m³



respectively by 2020. Thus, net exports are expected to remain at about the same level as at present (35 million m³). Actual production and consumption in Russia since 2003 is close to this forecast.

TRENDS AND OUTLOOK FOR PROCESSED FOREST PRODUCTS

The following two figures show the projections for production and consumption of sawnwood and wood based panels (Figure 4) and pulp and paper (Figure 5). These show a projected 200 percent increase in the production of each of the main forest product categories from 2000 to 2020 and significant, but slightly lower, growth in consumption over the same period. Therefore, Russia's net exports of processed forest products are expected to increase over the next two decades.

However, these figures also show that production and consumption have not increased in line with the projections so far. In particular, sawnwood production and consumption has not increased by very much since 2000. Globally, forest products markets have continued to grow over the last few years, so the lack of growth in Russia is not due to a lack of demand in export markets and it seems that this must be due to problems in the domestic market.

DERIVED DEMAND FOR WOOD RAW MATERIALS

Figure 6 shows the trend and projection for industrial roundwood consumption in Russia, by end-use. Currently, sawlogs and veneer logs account for almost two-thirds of the industrial roundwood consumed in Russia. By 2020, it is expected that sawlogs and pulpwood will each account for roughly half of all industrial roundwood consumption (due to relatively higher growth in the production of wood based panels, pulp and paper). In addition, growth in sawnwood production and paper consumption in the domestic market will offer more opportunities for the use of recycled materials and wood residues. Thus, the future consumption of industrial roundwood (from forests) could be less than indicated here.

CONCLUSIONS ABOUT THE OUTLOOK FOR RUSSIAN FOREST PRODUCTS

Demand for industrial roundwood in Russia is likely to expand to about three times the current level of production by 2020, but this level of production will still be less than the growth in volume of the forest resource. Therefore, the growing stock will continue to increase and this future level of production will remain within the sustainable yield of the forest.

Sawnwood will continue to dominate the sector, but demand for small-sized roundwood will grow in importance. Thus, there will be opportunities to increase the yield from harvesting operations with greater use of tree tops and smaller sized trees. There will also be greater opportunities to use recovered paper and wood residues, which could increase the environmental performance of the sector as a whole.

Exports will continue to account for a significant share of production, but the majority of future growth will come from increased domestic demand for industrial roundwood and forest products. At present, significant growth in the domestic market has not appeared and future growth in the sector will depend upon the speed of recovery in the Russian economy.

OPPORTUNITIES AND CHALLENGES IN THE RUSSIAN FORESTRY SECTOR

The figures presented above have already shown that the vast Russian forest resource offers considerable opportunities for expansion and development of the forestry sector. However, it must be remembered that forestry development requires a lot more than a large forest resource. In particular, countries that have successfully developed their forestry sectors have been able to bring together the optimal mix of land (i. e. forest resources), labor and capital, to maximise the economic returns from activities in the sector. In addition, many of these countries have benefited from appropriate government policies both within and outside the forestry sector that have encouraged growth and development.

The following sections describe some of the opportunities and challenges for development of the forestry sector in Russia, based on FAO's experiences in other Eastern European countries and emerging economies.

DEVELOPMENT OF FOREST RESOURCES

As noted previously, Russia has a huge forest resource, but the amount of this resource that can be used for wood production depends on how much of the resource is economically accessible and the profitability of forest management.

Countries that have improved the financial viability of forest management tend to have clear, simple and stable rules and regulations that reduce risk in the sector and minimise the costs of complying with forestry laws and regulations. Where forests are managed in public-private partnerships (e. g. through concessions), a recent trend has also been the greater use of market based mechanisms for awarding concessions and setting the charges paid by the private sector. The forestry authorities in Russia would be advised to consider these issues as part of the process of transformation to a market economy.

The financial viability of forest management is also tied to the development of a profitable and dynamic forest processing sector. The potential to increase stumpage prices increases when the forest industry is more competitive in domestic and international markets, but in export markets this often means that strict environmental safeguards should exist and be followed by producers of forest products. Therefore, it is important to support the development of a forest processing sector that is economically competitive as well as socially and environmentally sustainable.

DEVELOPMENT OF HUMAN RESOURCES

Labor costs in Russia are very competitive, particularly in the forestry sector where Russia has a long tradition of forest management and a large, well-trained workforce. However, despite the generally high level of technical skills in the sector, experiences from other countries in transition have shown that there is often a need for improvements in skills in areas such as marketing and general management. Improvements in these areas are required in the forestry sector in many countries (even in many developed countries) and such improvements are likely to be needed in both the private sector and the public service.

Often, foreign direct investment is the most effective way to develop these skills through on-the-job training, technology transfer and the opportunities for interaction between Russian and foreign managers and professionals working in the sector. Countries as diverse as Brazil, the Baltic States and China have for some years benefited from such interaction and it appears

as though Russia is starting to engage in such activities.

CAPITAL INVESTMENT

The structure of production and exports of forest products from Russia suggests that capital investment is probably the most pressing need for the future development of the forestry sector. All over the World, the forestry sector produces modest but quite stable returns to investors, with generally higher (but less stable) returns for more processed products. Therefore, given the modest returns in the sector, a crucial factor affecting investment is the amount of risk associated with any investment (Canby, 2006).

In international investment, risk is usually examined at three levels:

- country risk;
- industry or sector risk; and
- firm or company risk.

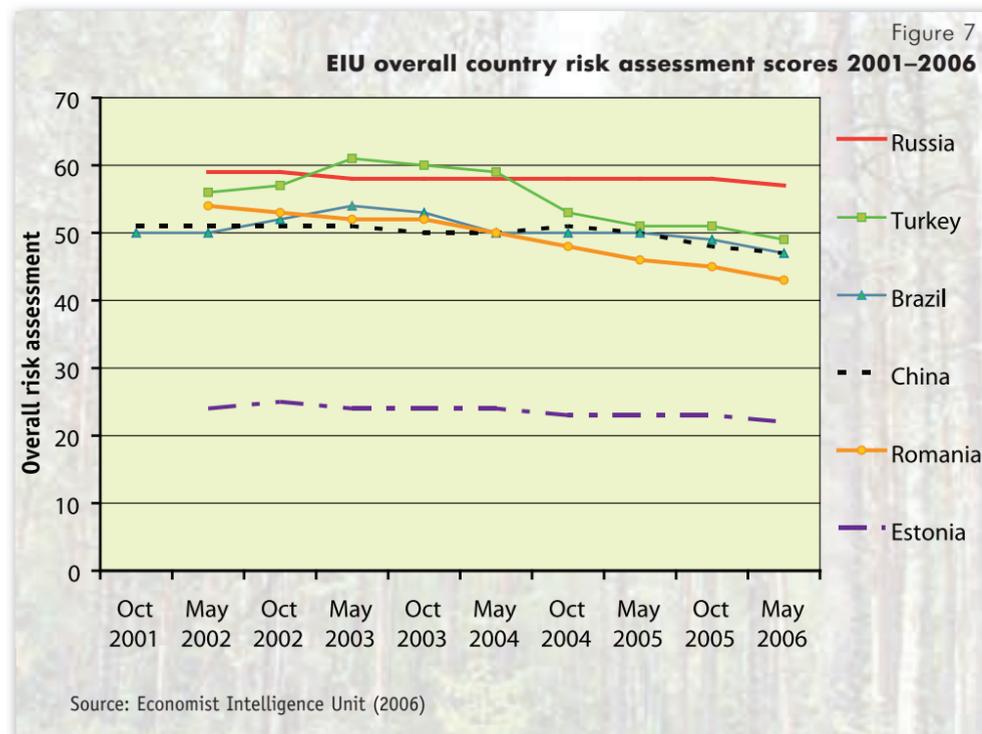
Information about the risk of investments in the forestry sector (i.e. industry or sector risk) is often difficult to obtain and information about individual firms is extremely difficult to obtain except for the largest companies in the sector. Risk assessment requires reliable statistics and serious analysis of the sector but, due to the

relatively small size of the sector, it is often not cost-effective for investors (or independent investment advisors) to collect and produce such information.

Information about country risk is more generally available from public or commercial sources and this shows investors how Russia compares with other possible locations for investment in the forestry sector. For example, indices that may be used by firms and individuals considering investment and business in Russia include the following:

- The Economist Intelligence Unit's Risk Briefings (<http://www.viewswire.com>);
- The Bertelsmann Transformation Index (<http://www.bertelsmann-transformation-index.de>);
- The Transparency International Corruption Perceptions Index (<http://www.transparency.org>); and
- a number of business and investment indicators published by the World Bank (<http://www.worldbank.org>).

To give one example, Figure 7 shows the overall country risk assessment scores for Russia and a number of comparable countries that might interest investors in the forestry sector. These figures are taken from the Economist Intelligence



Unit and higher numbers indicate a higher degree of risk of investing in a country.

The three largest emerging economies with significant forestry sectors are Brazil, Russia and China. The figures show that the investment risk in Russia is considered to be quite a lot higher than in both Brazil and China. Furthermore, the risks in both of these countries have declined slightly in the last few years while the risk in Russia has hardly moved.

The benefits of transition to a more market-based economy – with stronger governance – are shown by the figures for Turkey, Romania and Estonia. In particular, Estonia and the other Baltic States have shown how limited forest resources, combined with cheap skilled labor, can lead to strong growth in the forestry sector if the investment climate in a country can be improved. Compared with their experience, it would appear that Russia still has some way to go to attract the significant amounts of new investment required in the sector.

POLICIES AND INSTITUTIONS

All over the World, a major factor that affects the investment climate and costs of doing business is the quality of policies and institutions. Therefore, it is useful to examine some of the trends in policies and institutions that are taking place in other countries.

FORESTRY POLICIES

In many countries in recent years, a major trend in forestry policies and institutions has been declining budgets for state forestry authorities. In response to these developments, many countries have tried to make their institutions more efficient and responsive by decentralising activities, creating self-funding forestry agencies, privatising commercial activities and outsourcing some public functions.

These developments have also been reflected by a gradual change in the functions of public agencies from forest managers or providers of services to the forestry sector to more of a regulator of private and public-private forestry activities. Associated with this, governments are also trying to create more competition for access to the resource by shortening concession periods, offering smaller and more temporary licences for forest operations and introducing

competitive bidding for harvesting rights and management activities.

Policies such as those described above have had mixed results, but in many cases they have increased efficiency and competitiveness in the sector.

TRADE AND INDUSTRY POLICIES

In the forest processing sector, almost all countries attempt to maximise the domestic production and export of value-added products. Trade policies – such as export taxes on unprocessed products – are a commonly used mechanism, although they are a negative incentive (i. e. they discourage exports of unprocessed products rather than encourage exports of processed products) and, due to their nature, they have had mixed success.

Another more positive mechanism to encourage forest processing is the use of incentives (e. g. grants, subsidies and loans) to promote industrialisation. Several countries with rapidly developing forest processing sectors (e. g. Brazil, Chile and China) have used a range of incentives to support such developments. Given the currently high energy prices and the impact of this on Russian public finances, an opportunity currently exists to promote investment in the sector through direct incentives and public-private partnerships.

A more recent development in industrial policies has been the encouragement of public and private sector collaboration in research, development, marketing and a range of other activities, to bring together all the different components required for a successful industry. Development of such “forestry clusters” is now underway in countries as diverse as Finland, New Zealand, Brazil and Scotland.

Another way in which countries have encouraged the development of forest processing is by increasing information about the sector, to overcome some of the problems of risk assessment already noted previously. For example, many East European countries now produce and present comprehensive statistics about numerous different aspects of the forestry sector. These efforts have been supported by both government and the private-sector, as they have gradually started to understand the benefits of improved information.

THE RUSSIAN WOODWORKING INDUSTRY FROM A EUROPEAN PERSPECTIVE

Source: CEI-bois

Russia is one of the main players in the forest-based sector. Not only is Russia an important global player, its forest resources and forest industry also have a vital role to play on the regional level within the European and Russian forest-based sector. Chiefly as a raw material supplier, Russia plays an important role for the European woodworking industries, mainly in the Baltic Sea region.

Strong positive economic development has created and will further create good business opportunities. The Russian market is an interesting market for Europe to invest and, vice-versa, Europe is an excellent market for roundwood exports from Russia. Furthermore, Russia's historically strong wood culture can create opportunities for Europe and Russia to introduce wood-based solutions in construction and interior applications, as well as in packaging.

Russia is a member of the European Confederation of Woodworking industries (CEI-Bois), the European Organization of the Sawmill Industry (EOS) and the European Federation of the Plywood Industry (FEIC). Following this membership, they are involved in the "Roadmap 2010"-project and the "European Wood Initiative" for promotion in Asia.

Active cooperation within the organisations and their projects can be an excellent and fruitful opportunity. It can also prove to be beneficial for Russia in supporting the development of the regional common market as well as improve their markets in Asia, as Europe is actively involved in standardization and marketing on Chinese and Japanese markets.

In view of future developments, both for the Russian and European woodworking industries, it is necessary to have clear and proactive policies that stimulate developments favouring a strong woodworking industry and create investment opportunities. Policies (e. g. export taxes) should avoid impacting negatively on the existing flows of raw material and products in order to develop an innovative and growing woodworking sector in the European-Russian region.

Source: EPF

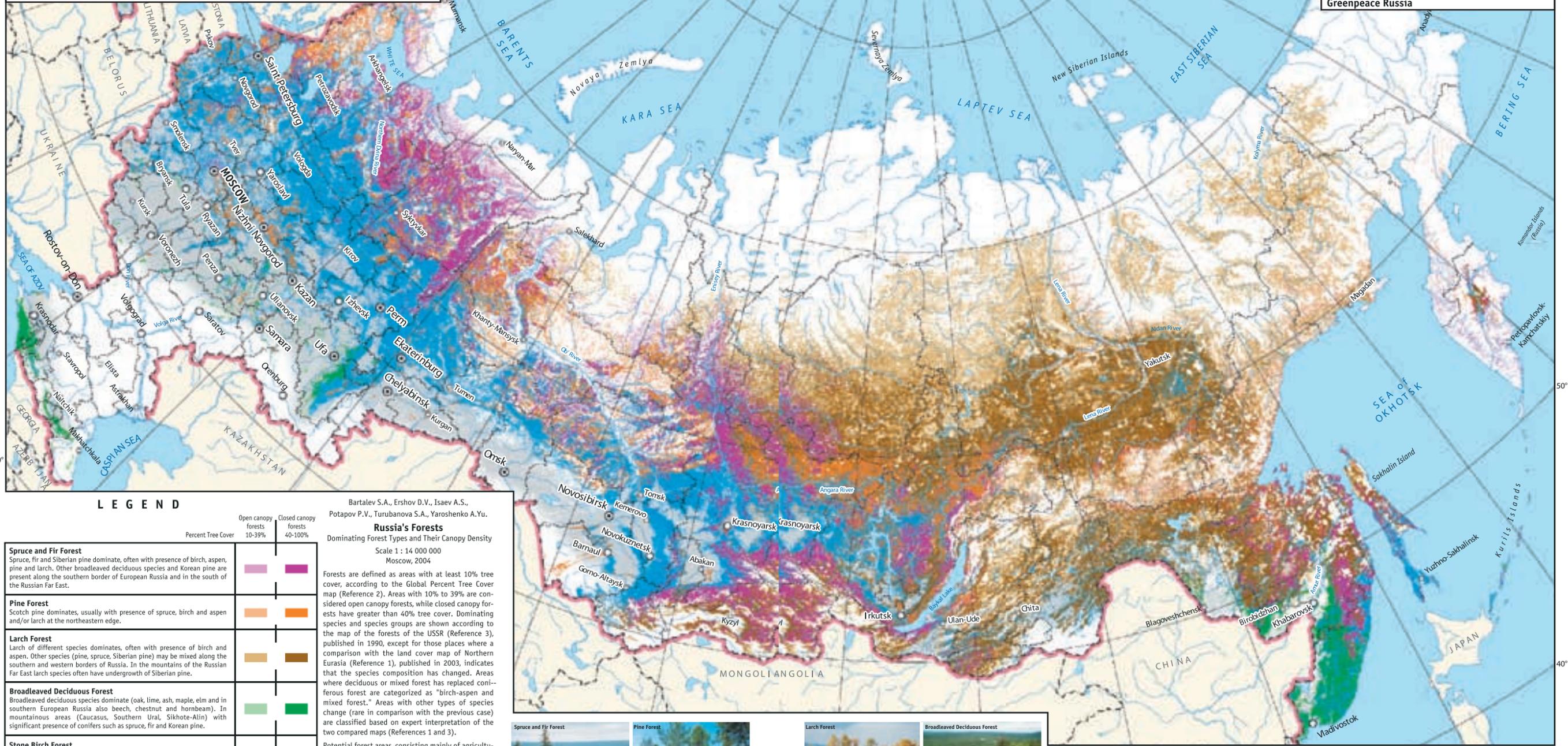
In addition, for the wood-based panel industry, the Russian and European markets are increasingly interlinked. In the first instance, Russia is Europe's biggest supplier of broadleaved plywood. For many decades, Russia has considered plywood to be a key-industry, exporting an important part of the production to Europe as well as to other parts of the world. In 2006, Russia exported about 740,000 m³ of birch plywood to European countries. Hence, Europe is by far Russia's first export market for plywood. The share of Russia in European imports remained fairly stable over the past decade, contrary to Chinese imports, which accelerated at a high pace. Meanwhile, in absolute terms, Russia is still Europe's largest foreign plywood supplier. One of the main reasons for this is that the quality of Russian plywood on the European market is quite close to European standards, especially when compared to Chinese imports. The serious involvement of the Russian plywood sector in the European market is demonstrated by the fact that four leading Russian plywood producers are members of the European Federation of the Plywood Industry (FEIC).

For other types of wood-based panels, such as particleboard, MDF, and to a lesser extent, OSB, Russia is an importer of European panels, since the domestic particleboard and MDF industry cannot meet the demand. Russia started relatively late with the modernisation of its particleboard industry and therefore still imports large volumes. Although Russia has been producing MDF since 1991, the country counts only 5 continuous MDF production lines. As this output does not fulfil local demand, especially in the rapidly expanding furniture industry, Russia relies on European imports. The furniture industry has a strong demand for MDF OSB, which broke through in Europe and North America in the nineties but is still a lesser-known product in Russia.

Thanks to the huge availability of raw wood material and good market prospects, several leading European panel producers are already present and will continue to invest in Russia. Several other European panel producers are looking to invest in Russia as well.

MAP OF RUSSIA'S FORESTS

Dominating Forest Types and their Canopy Density



Space Research Institute of the Russian Academy of Sciences (RAN)
 Forest Ecology and Production Center of the Russian Academy of Sciences (RAN)
 Global Forest Watch
 Greenpeace Russia

LEGEND

	Open canopy forests Percent Tree Cover 10-39%	Closed canopy forests 40-100%
Spruce and Fir Forest Spruce, fir and Siberian pine dominate, often with presence of birch, aspen, pine and larch. Other broadleaved deciduous species and Korean pine are present along the southern border of European Russia and in the south of the Russian Far East.		
Pine Forest Scotch pine dominates, usually with presence of spruce, birch and aspen and/or larch at the northeastern edge.		
Larch Forest Larch of different species dominates, often with presence of birch and aspen. Other species (pine, spruce, Siberian pine) may be mixed along the southern and western borders of Russia. In the mountains of the Russian Far East larch species often have undergrowth of Siberian pine.		
Broadleaved Deciduous Forest Broadleaved deciduous species dominate (oak, lime, ash, maple, elm and in southern European Russia also beech, chestnut and hornbeam). In mountainous areas (Caucasus, Southern Ural, Sikhote-Ain) with significant presence of conifers such as spruce, fir and Korean pine.		
Stone Birch Forest Stone birch dominates, often with presence of larch trees or patches of trees. In Kamchatka this forest has undergrowth of mountain pine, and in the mountains of Primorye and Sakhalin with presence of spruce and fir.		
Dwarf Pine Forest Dwarf pine dominates in patches or shrubby forest, often with a sparse upper storey of larch or stone birch.		
Birch-Aspen and Mixed Forest Birch, aspen and gray alder dominate, with presence of coniferous trees or patches of trees. In most cases, this forest follows logging, clearing or forest fires.		
Areas of Potential Forest Agricultural and other non-forest ecosystems in which climate and soils are suitable for forest growth.		

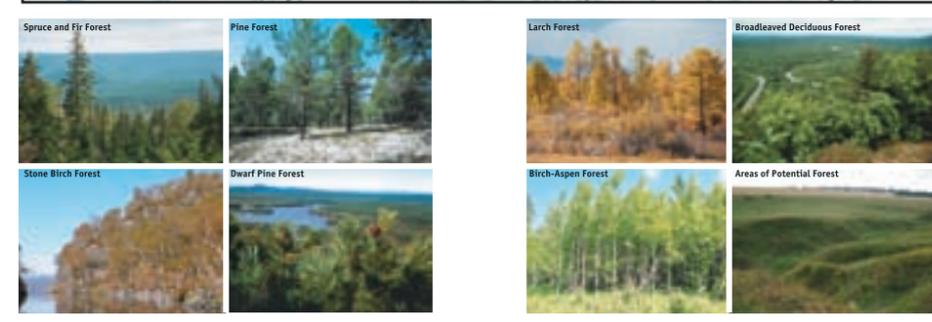
Bartalev S.A., Ershov D.V., Isaev A.S., Potapov P.V., Turubanova S.A., Yaroshenko A.Yu.
Russia's Forests
 Dominating Forest Types and Their Canopy Density
 Scale 1 : 14 000 000
 Moscow, 2004

Forests are defined as areas with at least 10% tree cover, according to the Global Percent Tree Cover map (Reference 2). Areas with 10% to 39% are considered open canopy forests, while closed canopy forests have greater than 40% tree cover. Dominating species and species groups are shown according to the map of the forests of the USSR (Reference 3), published in 1990, except for those places where a comparison with the land cover map of Northern Eurasia (Reference 1), published in 2003, indicates that the species composition has changed. Areas where deciduous or mixed forest has replaced coniferous forest are categorized as "birch-aspen and mixed forest." Areas with other types of species change (rare in comparison with the previous case) are classified based on expert interpretation of the two compared maps (References 1 and 3).

Potential forest areas, consisting mainly of agricultural and other non-forest managed ecosystems, are shown according to the map "Vegetation of the USSR" (Reference 4). Boundaries of this category are uncertain and determined based on expert opinion. The map is intended for educational use.

Latin names of trees, that are mentioned in legend:
 ash - *Fraxinus* sp.; aspen - *Populus tremula*; beech - *Fagus* sp.; birch - *Betula* sp.; stone birch - *Betula ermanii*; chestnut - *Castanea sativa*; elm - *Ulmus* sp.; fir - *Abies* sp.; gray alder - *Alnus incana*; hornbeam - *Carpinus betulus*; larch - *Larix* sp.; lime - *Tilia* sp.; maple - *Acer* sp.; oak - *Quercus* sp.; pine - *Pinus* sp.; Siberian pine - *P. sibirica*; Korean pine - *P. koraiensis*; Scots pine - *P. sylvestris*; dwarf pine - *P. pumila*; spruce - *Picea* sp.

Photos: Dahno T.V., Kantor V.A., Kiritchok E.L., Piskareva S.B., Potapov P.V.



Forest mapping in the USSR was well developed. Practically all forests were mapped in the process of so called "lesoustrojstvo", or forest inventory and planning. In the process of lesoustrojstvo, detailed maps were produced for each forest management unit (FMU), with a scale of up to 1: 10,000, depending on the intensity of forest management and the legal category of the forest. These detailed maps had to be updated once every 10 years for intensively managed forests, and once every 15-20 years for the rest of the areas (in practice, updates were more seldom, especially for the remote forests of the North).

Despite well developed and (at least some decades ago) high quality forest mapping at the level of forest management units, good scale forest maps for the whole USSR or Russian Federation were never produced until 1990. In 1990, the first map of this sort was produced – it was based on the aggregated FMU map “Forests of the USSR,” at a scale of 1: 2,500,000, which was not really published at that time (officially, the map was classified as “for authorised use only”). This map was partly based on out of date materials (some FMU maps that were used were based on 1950s – 1970s data). Tree species dominance on FMU maps was shown according to old forestry standards. For example, mixed forests with 40%, and in some cases only 30% of coniferous species, were shown as coniferous forests. Areas replanted by coniferous or some hardwoods (especially oak) were also shown on the FMU maps as coniferous or oak forests, even if in reality, due to lack of tending, they were outgrown by birch or aspen. All these peculiar properties of FMU maps led to a great overestimation of areas covered by coniferous and some hardwood species in developed parts of European Russia and Southern Siberia by the “Forests of the USSR” map.

Since the collapse of the USSR, the map “Forests of the USSR” had never been updated by Russian forestry authorities. All the official national scale forest maps that followed were based on this old map. All declared attempts to make a new official forest map failed, due to desintegration of the forest information system, lack of data for some categories of forests (especially forests under the Ministry of Agriculture), and many other problems.

In 2004, the first full map of Russian forests, based on SPOT-Vegetation satellite images with forest classifications according to FAO standards, was produced by S. A. Bartalev, A. S. Belward, D. V. Erchov and A. S. Isaev – “A New SPOT4–VEGETATION Derived Land Cover Map of Northern Eurasia”. This was the first map to show the current state of forests for the entire country. Differences in species group composition for some parts of the country were huge, especially for the entire belt of the southern boreal forests in European Russia and Southern Siberia, which was the main area of forest exploitation in the XX century.

The New SPOT4–VEGETATION Derived Land Cover Map of Northern Eurasia has one very important weakness: some rather different forest types (for example, spruce and pine dominated) were merged together (“evergreen coniferous”). This makes it difficult to use this map for many general

purposes, related both to forest use and to environmental education.

Taking this weakness into account, Greenpeace decided to make a “hybrid” map of Russian forests based on two of the above mentioned, where the dominance of coniferous (deciduous and evergreen) and deciduous species were shown according to the SPOT4–VEGETATION Derived Land Cover Map of Northern Eurasia, and within these major groups, the dominance of tree species was either shown according to the “Forests of the USSR” map, or classified changes revealed by the comparison of these maps. In addition, forest extents were shown according to the more detailed “Global Percent Tree Cover at a Spatial Resolution of 500 Meters: First Results of the MODIS Vegetation Continuous Fields Algorithm” (M. C. Hansen, R. S. DeFries, J. R. Townshend, M. Carroll, C. Dimiceli, and R. A. Sohlberg). In the process of this work, the thresholds between major classification groups in the above mentioned satellite based maps were tested with the use of higher resolution images (Landsat 7) and some field data.

After the “hybridisation” of the above mentioned maps, which was actually a long and complicated process, a map was supplemented by the belt of so called “potential forests” – actually the zone outside existing forests or forest lands, where forest, dominated by native species, can grow outside floodplains and river valleys (this data was based on the USSR vegetation map).

The final map – “Russia’s Forests. Dominating Forest Types and their Canopy Density” – was published in Russian and in English in 2004 at a scale of 1: 14,000,000, and was mainly used for educational purposes. The map was criticised by top level forest authorities for an “overestimation of the area dominated by birch and aspen forest and mixes with birch and aspen” as, in official forest statistics, a big part of this area is shown to be dominated by coniferous, but the attitude of practical foresters was much more positive.

The map is mostly used for purposes of environmental and forestry education.

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FOREST MAY BRING MORE PROFIT TO THE ECONOMY

The Cabinet of Ministers heard the problems of forestry and of the ways they're being handled



Yury TROUTNEV,
RF Minister of Natural Resources

The RF Ministry of Natural Resources is entrusted with managing the forest as a natural resource. It is obvious, that forest management ensures further development of the forest industry and integrated timber processing.

I should say the situation has changed insignificantly as compared with December 2006, when we reported the results. Stable growth has been observed in all major aspects in accordance with the Forestry Development Concept approved in 2003 by RF Government.

PROFIT REACHED 35 BLN RUBLES

Regarded as a resource, the processing industry is demonstrating a growing satisfaction of its raw materials needs. Today, the supply of forest is exceeding the demand of logging enterprises by 30 percent.

Forest regeneration increased by 12% since 2004. There is a positive trend towards forest composition change – the share of coniferous stands grew by 3.1%. The forest regeneration coefficient went up from 0.69 to 0.9.

A share of long-term leased forest areas increased by 50% over the previous three years.

The new concept of financing fire fighting and prioritizing preventive measures reduced the level of fire damage incurred by half.

A brand new system of forest guard based on air and space monitoring was implemented. Currently, the forest area covered by distant monitoring includes all of the intensively exploited Russian forests – 101mln ha. As a result, the amount of fines for violation of forest legislation increased by 20% since the previous year.

The profits from forest use reached 35 bln rubles in 2006, which is 46% more than that in 2004.

Nevertheless, we realize that fulfillment of the concept approved in 2003 is not enough. Forestry may bring more benefits to the Russian economy.

PLUS 40 MLN M³

Elimination of multiple problems may significantly increase the effectiveness of forest use for the purpose of economic development and sustaining a favorable environment in Russia.

So, the obstacles preventing development of the forest industry during the period of the new Forest Code development were as follows:

- a badly structured governmental forest management system (including a combination of administration and operational functions)
- unjustified limitations of forest use
- lack of exact borders of the forest fund; outdated information about forest composition
- non-transparency in the process of forest use rights allocation
- excessive intervention of federal executive bodies into forest management on all territory of the Russian Federation
- low investment attractiveness of forestry

All of the above listed problems required a reorganization of the forest management system which was performed through the development of the new Forest Code that was adopted in 2006 and came into effect on 1 January, 2007.

The Forest Code offers some new approaches. It has provisions aimed at enhancing forest use effectiveness. These include, in particular:

- expansion of forest use types list (from 7 to 15)
- a more transparent forest plot allocation procedure – introduction of forest resource allocation through tenders
- opportunity of forest land use for the development of transport and timber processing infrastructures
- a new forest classification and decrease of the number of limits imposed on cutting to the internationally recognized level; as a result, the AAC increased by 40mln m³ per year.

The main innovation of the Forest Code was the devolution of the forest management system. Since 1 January, 2007, the major part of forest resource management powers was transferred to the regions. During the previous years this measure had been lobbied by RF subjects proving that the forest should be managed by the authorities of the region where it grows.

In the meantime, the Forest Code is a document drastically changing the legal relations system in the forest sector. Its implementation requires the pre-solving of a whole range of crucial issues.

DOCUMENTS ARE READY IN TIME

Let us touch upon the issues to have been solved jointly in order to prevent the destabilization of a critically important industry, engaging over 3mln people, during the transition period after the enforcement of the Forest Code, and improve the overall situation in Russian forest-related industries.

First and foremost, we are to:

- establish a new regulatory environment for pursuing governmental policy in the forestry area
- transfer forest management powers along with FMUs to executive bodies of RF subjects
- ensure sufficient funding of works related to the enforcement of the Forest Code, and provide for subventions for RF regions' performance of transferred functions
- develop and implement a system of monitoring RF subjects' effectiveness in forest management

Each of the above listed areas requires certain measures to be taken.

For the purpose of regulatory environment development, a legislative package of 71 documents covering all forest use, protection, guard and regeneration issues should be approved. 26 acts of government and 34 orders of the RF MNR are to be prepared within the framework of the package.

As soon as required, subordinate legislation affects the interests of many people, practically all RF subjects; each document was revised using public discussion. A Forest Board was created within the RF MNR, which

considers and discusses hundreds of regulatory document revision suggestions involving the heads of all RF subjects, scientists and business representatives.

Currently, the document preparation process is as follows: all 23 RF government acts, which are under MNR responsibility, have been submitted to RF government. Ten of them have been signed. I would like to take an opportunity to express gratitude to Serguey Naryshkin, Prime-Minister Deputy, for his great assistance and coordination.

As for the agency's orders, 15 acts have been approved by this time; the remaining acts are at the final stage of preparation.

So, preparation and submission of regulatory acts to RF government is made in full accordance with the approved time schedule. This lets us hope that the legislative base necessary for implementation of the RF Forest Code will be ready by the specified date, i. e. 1 July, 2007.

100% CONTROL

Forest management continuity is ensured within the framework of power transfer to RF subjects. The subjects received 1,704 FMUs with an aggregate number of employees exceeding 160,000 people and production facilities with a net book value of over 35 bln rubles. This work did not affect the industry's routine operations in the slightest.

Sustainability of forest use is also guaranteed. Timber harvesting approvals were issued for 217,000 cutting areas for the year 2007.

All RF subjects created forest management agencies; the formation of the new structure of the Federal Forestry Agency is completed. The issues relating to the financing of transferred powers in the period from 2008 to 2010 were generally settled.

As you can see, the three-year budget allocates more funds for forestry than in 2007. The funds have been channeled to RF subjects to enable them to perform the functions transferred to them.

A system of control of RF subjects' performing the new functions was developed in due time.

It is based on technical methods including distant monitoring of forest use, wildfire and forest pathology, as well as economic methods relying on eleven target forecast indicators.

These methods allow regular monitoring of forest conditions and use, assessing performance of RF subjects in the forest sector. Earlier, sources of information were limited to forest inventory data, which was updated by 30% once per decade. Now, we have developed and implemented a system which ensures annual updating and receiving credible information about 100% of the forest fund area.

LAND SURVEY IS A DIFFICULT THING

In the meantime, there are a number of serious outstanding issues to be discussed by the RF government.

A number of serious problems are to be solved by RF subjects during the period of the Forest Code implementation. Thus, the regions are to set boundaries of forest districts and forest parks; form territorial forest management units (forest districts); develop and approve forest plans of RF subjects and forest management regulations; and perform forest land survey and cadastral input. Then, forest companies should renegotiate their lease agreements, draw up forest development plans and submit forest declarations using the data obtained.

To our mind, overall RF forest land survey and cadastre input are extremely difficult to perform due to the huge amount of work; RF subjects will not be able to complete this work up until the end of the next year. In general, more than 150mln ha require exact bordering.

In addition to this, about eleven thousand lease agreements with timber producers registered in Russia cover above 100 mln ha of forests. All these agreements should be renegotiated by 1 January, 2008, in accordance with the Forest Code. For this purpose, a forestland survey should be performed marking boundaries and recording the lands in the land cadastre to work out forest plans and regulations.

Russia has no organizations capable of performing this work within the time period

specified by the law. In order not to stop the work of the logging industry, we offer to extend the deadline for forest plans and regulations approval until 1 January, 2009, perform cadastre input of forest lands on the basis of inventory data, and extend the period for re-negotiating existing agreements until 1 January, 2009. These measures will allow RF subjects to fulfill all tasks without disturbing the forest and woodworking industries.

As we reported earlier, funds required for the continuous work of RF subjects and their execution of delegated powers are provided for by the three-year budget. Nevertheless, additional funds will be needed to ensure handling issues arising during the transition period and requiring extra work never performed before. Thus, an additional 8.9 bln rubles will be needed in 2007 for the development of operational regulations, forest plans, keeping the state land register, and forming state forest plots within.

The RF MNR considers it necessary to provide for budget allocations to ensure the fulfillment of provisions of the Forest Code during preparation of amendments to the Federal Law "On Federal Budget for the year 2007." I would like to note, that the Ministry of Finance initially supported such allocations, but now the resolution process of the issue has slowed.

ABOUT TACTICS AND STRATEGY

To summarize the above, we should say once more that, in general, the national forestry is operating within the indicators established by the RF government. The required legislative base has been prepared in time and the transition to the new management system has been made without significant disturbances to the industry.

Nevertheless, a number of outstanding issues still have to be resolved in a priority order to ensure the development of the whole forest sector of the economy. These issues may be divided into two blocks – tactical and strategic ones.

Tactical issues include incorrect time schedules set for the fulfillment of some functions within implementation of the Forest Code and the

absence of resolution on financing specific works arising during the transitory period.

Strategic issues may be fire fighting, illegal cutting, low investment attractiveness of forestry, and a lack of processing facilities.

As for fires and illegal cutting, the governors have received enough powers to effectively control these things. We considered in detail the reasons underlying the said problems as exemplified by the all-Russian meeting held in the Chita region. It is obvious, that illegal timber turnover and fire control, in terms of manpower and other means of management, requires federal supervision and intervention. We have the authority to coordinate and monitor these processes.

As for forestry attractiveness, the new code provides for an investment agreement mechanism aimed at stimulating interest to the industry. However, to make the mechanism work, we need regulatory documents which are being prepared by our colleagues in the Ministry of Industry and Energy, and Ministry of Economic Development.

We also highlighted many times the impossibility to enhance investment attractiveness of forest resources without a vast road network. This issue was discussed more than once but is still unresolved. We ask again that the Ministry of Transport and RF subjects begin road building in this country.

In general, when we speak about the cadastre, forest plans, regulations, and roads, I would like to recall, especially to the Ministry of Finance, that the money allocated for this purpose will be not spent on food and drinks; this money is an investment into the improvement of the forest sector of the most forest rich country in the world. We will not improve anything free of charge; in that case, we may only leave everything as it is.

I am sure that the more harmonic forest management system will increase the effectiveness of forest use. In the meantime, to make the reorganization of an industry as big as that of the forest industry fulfill its primary function – to increase effectiveness of the use of Russian forest benefits – we require a significant contribution from the RF government, RF subjects and interested executive bodies.



ROUND TIMBER EXPORT WILL BE **EXPENSIVE**

Valery Roshchupkin, head of the Federal Forestry Agency, comments on the RF Government plans to impose protective taxes on round timber

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The government of the Russian Federation is determined to accelerate the development of domestic timber processing and import substitution. Our terms for raw wood export have become some of the world's most strict.

This is a strategic decision giving a certain signal both to Russian harvesters and forest exporters, as well as foreign timber buyers.

It is well known that Russia, with its volume of forest resources, heads the list. Our soft and hardwood timber is noted for its high quality. We possess great potential in increasing our timber harvesting volume (which comes to 120 million cubic meters per year in the economically accessible zones alone) and at the same time providing benefits for the environment, federal budget and forestry industry.

However, increasing harvesting is not an end in itself. Round timber export volumes have grown by 2.5 times over the last ten years. We cover 40% of offerings on raw softwood in the world market.

We were satisfied with such a state of affairs until recently. During the last years we have been maintaining an extremely liberal regime for the export of raw wood. Today, our export tax is just 6.5% of the customs value, which is much lower than in Brazil, Canada, the USA and other exporting countries.

However, this situation is not convenient for us any more. An economic upswing is under way in Russia. Under such conditions we predict an increase in the domestic demand for timber. That's why the RF Government has decided to, in increments, significantly raise export taxes on raw wood over the next three years. The tax rate will come up 80% from the nominal value (but not less than 50 euro per cubic meter) by January 2009.

This decision fully complies with our national interest, international regulations and WTO rules. Of course we don't prohibit raw timber export to anyone. We just want the exploitation of natural resources in Russia to bring maximum benefit to national economics and the federal budget.

HEADING TOWARDS DEEP PROCESSING

The timber export tax increase should be viewed in the wider context of large-scale reform of the whole forestry sector of economics. The new RF Forest Code has been introduced this year. A fundamentally new forestry development stage has begun.

Radical downsizing in forest management has been performed. Regions are granted with all the basic rights and authorities for forest management while forest users' rights and responsibilities have been expanded. Common

forest management and forest husbandry will be discontinued during the current year.

Restrictions on forest usage that do not comply with international ones have been removed. Areas leased for up to 49 years are now accessible on competitive ground. Access to forest resources on the basis of investment agreements on timber deep processing in coordination with forest infrastructure development are also stipulated by the Forest Code.

Tenant rights for timber land lease have been introduced into civil and legal use as mortgages on credit security, assignation and sublease. We preserve state forest ownership and at the same time provide new possibilities for running the forest business, attracting new investments and mastering innovative technologies.

All these measures provide certain rules for the Russian and foreign forest business – as forest fund areas are leased with maximum liberal conditions, lessees should run forestry with forest restoration, and should aim at domestic processing.

Forestry development and personnel retraining have been strategically accentuated. We think that supporting forest programs and competitions for schoolchildren is particularly important. In our opinion, that's the most effective investment into the forest future. FAO should be more active in this process.

What's more, significant government investments into the new system of national forest inventory based on the latest informational and aerospace technologies have been provisioned.

FOREST USE WILL BE STEADY

The new Forest Code divides forests into protected, commercial and unexploited categories. Here we were mostly guided by the recommendations and experience of our foreign colleagues. Let me remind you that 95% of all Russian forests grow in the boreal zone. They include not only unexploited and protected forests, but also the main part of our commercial forests.

To ensure this, steady forest use has become a federal priority.

Firstly, it includes taking inventory of state forests and evaluating forest conditions, which

will be based on a combination of ground and distance methods. A new annually updated information base for the whole territory of the forest fund will be organized to replace traditional and incomplete (once every ten years) forest husbandry data. Internationally acknowledged criteria and indications are intended to be the basis of forest condition evaluation.

Common access information systems including a forestry register, forest areas cadastre, remote sensing data, and means of forest cartography development will be accelerated. At the same time, forest inventory taken by the state is clearly differentiated from commercial forest husbandry used for drawing up and amending projects on forest development.

The next step will be expanding the net of model forests. We associate this form with ensuring the stable use of forests with the residential population, as well as involving them in making decisions on forest management. We have already gained some experience in model forest functioning, as the initial stages of such work are now being realized in several regions. These forests will serve as an effective channel for the penetration of progressive Russian and foreign experience into practice of forest management in certain regions. They will also be used as a ground for realizing international projects.

An important state priority of the Federal Forestry Agency is the non-commercial and environmental task of protection forestation system recovery. Beginning as soon as the current year, budget provisions will be provided for these aims.

A policy of stimulating forestry ecologization should be particularly noted. It enhances the importance of our cooperation with nongovernmental organizations and business associations. The main object of this process is providing all possible means of support for the following mechanisms: voluntary codexes of professional ethics and standards of environmental and social responsibility of business; independent monitoring and forest exploitation audits; voluntary certification; and environmental ratings. I should also note that at present, voluntary forest certification for different systems has been realized on the territory of 14.4 million hectares, as a national system of voluntary forest certification is planned to be introduced in 2007. This system will be harmonized with the main international systems.



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THE NEW RUSSIAN FOREST CODE: A REVIEW

January 1st, 2007 is the effective date of the new RF Forest Code. The 2003 draft of the Code, prepared by the Ministry of Economic Development and Trade, became the most debated document of all the natural resource legal drafts of the previous decade. It has since undergone significant revision, and was finally adopted last December.

The new Code drastically changes the principles of forest management and funding, as well as the management assessment system, and determines the scope of forest industry participants.

The Russian forest management system prior to January 1, 2007 was based on the Forest Code of the Russian Federation, which had been in force since 1997. Some of the fundamental aspects of that code were as follows:

- Forests belong to the Russian Federation (with the exception of some small forests, which were classified as “woody vegetation” on non-forest lands)

- Forests are divided into forest management units, managed by local forest administrations (“leskhoz”), which fulfill both forest governance and most civic operations.

- Forests are managed according to special management plans (“lesoustrojstvo”), which are produced by state-owned specialized forest planning companies, usually for 10 years. These plans are also used as a base for state forest statistics and strategic planning.

- Forests are open for public access, picking berries and mushrooms. Rural citizens have free access to firewood and limited amounts of wood for construction.

- Forests can be allocated for logging concessions for a period of 13 months to 99 years, but the logging rights for concessions can be divided between a company and leskhoz (a company can attain rights for final felling,

and leskhoz still obtains rights for commercial thinning or salvage).

- Forests can also be sold for cutting as individual cutblocks, which should be cut over one year (the sale of individual cutblocks are done in the form of an auction, and the allocation of concessions is based on tender when multiple factors are reviewed by a special commission).

- For all cutting activities, including those in concessions, there is a unified permission called a “logging ticket,” issued by the forest administration – leskhoz.

- Most issues are regulated not by the Forest code itself, but by special forestry regulations, issued mainly at the federal level (some of which are related not to the whole country, but to one of seven large forestry regions).

SUMMARY OF THE RUSSIAN FOREST MANAGEMENT SYSTEM AS OF JANUARY 1, 2007

The new Russian forest management system is based on the new Forest Code of the Russian Federation, federal law about the implementation of the Forest Code (that regulates the transition period, and changes some related norms in federal legislation), and about 60 governmental and ministerial regulations that are already enacted or should be enacted until the end of 2007. The basics of this system are as follows:

- Forests that are officially classified as so called “forest fund” (forestry lands, roughly about 95% of all Russian forests and woodlands), belong to the Russian Federation, and other forests can be in any other ownership;

- Management of forests is provided either directly by federal agencies (about 7% of all Russian forests) or delegated to regional administrations (about 93% of forests).

- Forest income from the “forest fund” is collected for the federal budget, and when forest management is delegated to regional authorities, expenses are covered from the federal budget.

- Main forest regulations are defined by federal authorities, and some laws and regulations (mostly related to personal needs of people) can be issued by regions.

- Municipal authorities own forests on the lands of settlements, but have no power related to other forests.

- Forests can be allocated for logging concessions for a period of 10 to 49 years on the base of auctions, and a concession holder is responsible for forest management and protection.

- Old concession agreements should be changed according to the new Forest Code and resigned before the end of 2008. Before then, some rights of the concession holder are limited.

- Outside of concessions, forests can be sold for logging as individual cutblocks. In this case the state is responsible for reforestation and all following activities, with some possible exceptions.

- Practically all types of long-term forest use (mining, maintenance of linear objects, game management, organized recreation, etc.) should

be based on concession agreements from 1 to 49 years.

- Activities inside concessions should be based on the annual forest declarations (not completely site-specific), either on wood selling (site-specific) or forest maintenance agreements.

- Four management planning documents are obligatory: a regional forestry plan, a forest management unit (“lesnitchestvo” – about 1,600 units per Russia) management plan, a concession management plan and a forest declaration (latter two for concessions only).

- The national forest inventory is (or should be) separated from stand-level forest inventory and forest management planning.

THE DECENTRALIZATION OF FOREST GOVERNANCE

One of the most important features of the new Forest Code is the “decentralization of forest governance.” Decentralization means that responsibilities for forest governance and management will be divided between the federal government and regional administrations. According to the new code, the division of primary functions will be as follows (the division is different for about 7% of Russian forests, including forests of the Moscow region,



forests of federal protected areas, forests on the lands of defense, and on some land categories other than “forest fund”).

Functions of federal authorities:

- Enactment of rules for forest use and management (special regulations for harvesting, thinning, planting, salvaging, fire safety, collection of non-timber forest products, etc.).

- Enactment of rules for forest inventory, planning, and reporting (forms and regulations for management plans, logging declarations, forest inventory, and all types of reporting).

- Enactment of rules for concession agreements, wood sales, minimal wood prices, and penalties.

- Fire safety monitoring.

- Defining borders of forest management units.

- Defining forest categories’ (protective, exploitation, or reserved) special demands for forest management in protected areas.

Functions of regional administrations (including both “own functions” and “federal functions that are delegated to regional authorities”):

- Preparing forest management plans (both regionally and for forest management units).

- Organizing forest use (including the sale of concessions).

- Protection (including fire protection) and inspection of forests.

- Designing the structure of state forest administrations.

- Enactment of rules of forest use by citizens for personal needs.

- These functions of regional administrations are financed by the federal budget through special subventions (and income from “forest fund” is collected for federal budget).

This model of decentralization was first applied in January 2005, with special amendments to the old Forest Code, to so-called “agricultural forests” (about 40 million hectares of forests), which were allocated in Soviet times for the needs of agricultural organizations and until 2004 were under the jurisdiction of the Ministry of Agriculture. Now it has expanded to about 93% of Russian forests.

THE SITUATION IN THE MOSCOW AND LENINGRAD REGIONS

According to the new Forest Code, some forest management units can be left under direct federal administration if the population density in a particular region is at least 15 times higher than the national average. In practice, this density occurs only in the Moscow region. According to the Code, the federal government can decide which forest management units of this region can be left under the federal administration. At the moment, all of the units in the Moscow region are governed and managed by the special Moscow regional branch of the Federal Forest Agency, and a similar decision has already been made for 2008 (defined by governmental regulation).

A more complicated situation relates to the Leningrad region. The State Duma (parliament) did not allocate monies for subventions for the forest administration of the Leningrad region (as well as the Nenets and Korjak autonomous districts) in the federal budget for 2007 for unknown reasons, although it was likely a technical mistake. Only in late May was this mistake in the federal budget recovered by special law, and the process of responsibility transfer started. This means that

in first five months of 2007 there was no legal base for protection and supervision of forests in the Leningrad region (outside of already allocated concessions).

THE FOREST CODE AND REGULATIONS

The new Forest Code, as well as its predecessors, demands a lot of regulations that should be issued by the government, the Ministry of Natural Resources, or regional authorities. There are 42 different regulations that are directly mentioned in the new Forest Code, but this is not a complete list. The governmental plan for preparation of the regulations for the new Forest Code contains 25 regulations that should be enacted by the federal government and 32 regulations that should be enacted by the Ministry of Natural Resources. Furthermore, it is estimated that 5–25 different regulations should be enacted by regional authorities in each region (the amount of regional regulations depends on the region). The amount of regulations that should be enacted is growing, as new governmental regulations often say that some additional rules should be developed at the ministerial level. The full list, as expected, may include about 70 different federal regulations.

According to the federal law, “About the Implementation of the Forest Code,” all governmental regulations had to be enacted as of July 1, 2007. According to the official plan of the Ministry of Natural Resources, all ministerial regulations had to be enacted by June 8, 2007. Most experts considered these timelines to be unrealistic, at least for the preparation of high-quality and clear regulations. But priority in the development of new regulations was set not for quality, but for timing – and most of the regulations were issued with minor delays. Only a few regulations, related to national forest inventory and stand-level management planning, are being postponed until the end of 2007.

The traditional style of forest regulation in Russia is very prescriptive: it leaves little freedom for foresters to make their own decisions. Historically, forest management in Russia has been overregulated, and this is one of the main obstacles for the implementation of new practices. The new set of regulations represents a mix of overregulation and vagueness – this means that a practical forester will have a lot of freedom in his day-to-day decision making, but if he falls into conflict with the authorities, it will be difficult for him to prove that he did not break the rules.

There are many contradictions in the whole set of new forestry regulations that set the conditions for many conflicts and further corruption.

FOREST OWNERSHIP

According to the new Forest Code, forest lands, which are classified as “forest fund”, will remain under federal ownership. “Forest fund” denotes the category of federal lands officially allocated for forestry, plus some lands that are managed by forest administrations. This category was previously used both in state forest registers and state land registers, and there were some differences between them. The new Forest Code clearly links the “forest fund” with the land category.

838 million hectares of forests (95% of all Russian forests), plus 294 million hectares of other lands, were under the authority of the Ministry of Natural Resources until January 1, 2007. All of these forests and other lands were classified as “forest fund” by both forest and land registers, and now remain under federal ownership, as well as some small pieces of forests that were under the authority of the Ministry of Education. There are ways of changing the ownership of these forests, but mostly for construction and development purposes.



Up until January 1, 2005, 40 million hectares of forests (4.5%) were under the authority of the Ministry of Agriculture (“agricultural forests”), and since then, under the authority of regional administrations. These forests were classified in the State Forest Register as “forest fund”, but in the state land register could often be classified differently (for example – land of agriculture, with regional, private or unclear ownership). The details regarding the ownership of these forests are not clear now, but there will probably be no uniform solution for all of them. The ministry of natural resources is trying to return these forests to “forest fund”, but at the moment there are too few indicators of success. The value of these forests is rather high: these 4.5% of forests provide 10.1% of forest growth, and they are usually located near roads and settlements.

The other 6 million hectares of “official forests”, that are located outside the forest fund, can be under different ownership regarding the land category.

This does not include many forests that appeared on former agricultural lands after the perestroika era and were not officially classified as any form of forest. These forests officially do not exist and therefore, are open in terms of ownership.

RESPONSIBILITY FOR FORESTRY

Since Soviet times, the state was solely responsible for forestry, even inside logging concessions. Most forestry works were done by state forest administrations (leskhozses). In concessions, this work could be performed by companies (depending on the concession agreement), but nevertheless this was the responsibility of the state, who had to organize and compensate for the “normal” costs of it. Most loggers, including concession holders, were not involved in forestry works.

Forest planning (lesoustrojstvo) was also done only by special governmental companies, with a few regional exceptions only for the short-term, up to five year plans. Concession holders had little or no choice in terms of where to place an order for a management plan.

Planning and demarcation of cutblocks in the forest (including concessions) was also the responsibility of state authorities, despite

the fact that this work was often performed unofficially by concession holders.

The new Forest Code changes this situation: concession holders will be responsible for all forestry works in their concessions (for old concessions, they will become responsible after the concession agreements are re-signed – and this should be done before the end of 2008). The management plans can now be done by anybody, including concession holders, and there is no demand for any kind of mandatory accreditation or licensing.

Planning and demarcation of cutblocks in the forest inside the concessions will also be the responsibility of the company.

MANAGEMENT PLANNING

The new code sets the four-level forest management planning process.

At the regional level, there will be a “regional forest plan”, enacted by the regional forest authority. This plan will set the forest management units and zones, as well as the main development plans.

At the level of the forest management unit (lesnitchestvo, or park) there should be a forest management plan enacted by regional authorities or (in the Moscow region) the federal forest agency that spans ten years. It should define the annual allowable cut and basic demands and limitations of forest management. These management plans are mandatory.

At the level of concession there should be a “project of forest development” concession management plan. The concession management plan should pass the state assessment that is usually performed by regional authorities, and in some exceptional cases, by federal or municipal authorities.

Every year, for every concession, a “forest declaration”, should be prepared which represents the annual development plan for concession.

Demands for all four planning documents are defined by special regulations.

Former management plans (both for concessions and forest management units) should be replaced

by new plans by the end of 2008 – this means about 1,600 management plans for forest management units and 4,000 management plans for logging concessions. This is likely an unrealistic number, especially taking into account that legal demands for these plans are as of yet unclear.

Some additional problems may occur as a result of reform of state forest inventory and planning companies. They are all now merged in one federal structure with regional subsidiaries (“Center of Forest Inventory”, on the base of the federal company Roslesinform). The new structure encompasses about 95–97% of all forest planning capacities in Russia, and free market of forest planning services can be too limited, while the new structure can be not very effective as a result of on-going transformations.

STATE FOREST INVENTORY

Until now, the Russian state forest inventory system was based on the aggregation of stand-alone data, which was collected during forest management planning. This caused some serious problems, as the data was of different ages and quality, and often did not represent the actual state of the forests. Statistical sampling was not used for the forest inventory at all since Soviet times, when it was used locally in an experimental mode.

The new code separates the state forest inventory from standard forestry planning. It does not say directly that the SFI should be based on special collected sampling data independently of stand-level data that is used for traditional planning. However, this is the only inventory and planning function that should be provided by federal authorities, which means that it should be separated from stand-level inventory.

The new code states that the main tasks of SFI are:

- The timely discovery of possible negative trends in the forest state.
- The evaluation of the efficiency of forest protection, reforestation and tending.
- Providing information for state authorities for needs of forest management and control.

This means that SFI should provide more timely information which could be accomplished by the

aggregation of periodically renewed state level data. At the moment, the rules are not defined, and are not expected to be so until the end of 2007. Probably, the state forest inventory will be fulfilled by the above mentioned Federal Center of Forest Inventory.

FOREST GROUPS AND CATEGORIES

According to the Forest Code of 1997, all Russian forests are divided into three groups, named first, second, and third (the division of forests to different management groups first appeared in 1888, and 3 groups first appeared in 1943). The first group, “protected forests”, included the most valued forest categories: green zones of cities and villages, water protection zones, high mountain forests, protective belts along steppes and tundra, and protected areas – totaling 19.5% of Russian forests. Each subcategory of 1st group forests had a special regime – about half of them (in area) were excluded from final felling, but most were exploited with commercial thinning or salvage cuts.

The third group included “industrial” forests, primarily allocated for exploitation, with very weak management quality demands. Some of these forests were considered “reserved” – mostly forests of remote northern areas, which were not planned for development in the near future. The 3rd group represented about 73.7% of Russian forests, and about 1/3 of them were classified as “reserved”. The rest were classified as 2nd group – forests with an intermediate management regime between “protected” and “industrial” (all 2nd group forests were open for exploitation).

The new Forest Code reclassifies forests into 3 different groups: protected, exploitable, and reserved. Most of the formerly 1st group forests have been left as protected (some subcategories, related to water or fish protection, and sub-tundra forests, have been abandoned or decreased). For some subcategories of protected forests, the management restrictions will be more stringent: now clear cutting in protected forests is possible only in cases of salvage cuts, though “salvage” is often used only as an excuse for regular commercial logging.

The 2nd group of forests, and the exploitable (unreserved) forests of the 3rd group, have been merged into one broad category: exploitable forests. Management demands, which are as of

yet unclear, should be established by special regulations – logging rules, reforestation rules, thinning rules, etc.

The last broad category will include “reserved” forests – forests that are not expected to be exploited in the coming 20 years.

The new division of forests will be as follows: protective forests – 14.9% of forestry lands (not taking into account non-forest lands of the Forest Fond), exploitable forests – 60.1%, reserved forests – 25%. Only about 3% of all forests will be legally excluded from wood exploitation, not taking into account reserved forests, which are excluded due to economical reasons. These numbers are preliminary – as some forest categories will probably be reclassified.

FURTHER DEVELOPMENT OF FOREST LEGISLATION

Russian forest legislation is changing frequently, and is not expected to be stable in coming years. The first set of changes to the federal law “About Implementation of the Forest Code of the Russian Federation” was already adopted (valid since July 24, 2007). This law expands the transition period (old management plans and concession agreements will be valid before the end of 2008), and simplifies the registration of forest concessions in the land register. The law also allows the possibility to issue logging tickets for concessions (old site-specific logging permission) until the concession agreement is re-signed and the declaration system can be used – but, as a result of the mistake, these logging tickets can be issued only until January 2008.

The next drafted federal law, which aims to change both the new Forest Code and the law about its implementation, has already been considered by the Duma, and probably will be adopted before the end of 2007. Some more draft laws aimed at changing the Forest Code are being developed either by federal authorities, or by regional parliaments (most of them will not pass the Duma, but it is likely that the others will).

The full set of forestry regulations that has been developed according to the new code, is very controversial and probably will not exist long without major changes. Some of these regulations are not really important, and can go unchanged for a long time, if not forever. But

the most important ones – like logging, thinning, and reforestation rules – and the entire set of planning regulations, can not exist for a long time without major changes. Probably, these will be re-developed in the coming years.

MAIN EXPECTED CONSEQUENCES

The new Forest Code and corresponding reforms of the Russian forest management system are expected to cause a broad set of changes in Russian forestry and its related sectors.

One of the most visible consequences will be the high loss of jobs and respective increase in unemployment in forest-dependent settlements, especially in small villages and towns. The amount of forest management subventions from the federal budget allows for the employment of not more than 50 thousand people in all forest administrations throughout Russia (at the end of 2006, the Federal Forest Service had 197 thousand employees, not including the administrations of former agricultural forests). By January 2008, these administrations will have lost their monopolistic rights to income from commercial thinning and salvage. All of this means that at least 150 thousand people will lose their jobs in state forest administrations. Additional loss of jobs can be attributed to the new auction system of concession allocation (the new system does not allow any possibility to take into account the social role of pretenders), to decline small and medium-sized forest businesses, to exhaust the most productively accessed forests, and the on-going process of the re-equipment of forest companies with modern logging and processing equipment. The total loss of employment in the Russian forest sector over the next 3 years is expected to exceed 300 thousand people – in the worst case scenario, every other person employed in forest sectors of small villages and towns will lose his job.

The main victims of the new code will be, as expected, small and medium-sized forest businesses, especially small loggers and concession holders. The new code increases the paper and legal work that should be done by private forestry companies. By the end of 2008, all concession holders should re-sign their concession agreements with the new conditions, make new concession management plans, prepare forest declarations, organize the

new system of reporting, take responsibility for forest management, partly fire fighting, etc. (and all of this is especially complicated when the market of forestry services is extremely underdeveloped). This will be especially difficult for small companies in rural areas, where it is difficult to find good lawyers and other specialists. Additionally, it is expected that the “corruption load” will increase, as the new code contains more unclear and doubtful norms than previously, and small businesses are usually the least protected against corruption.

The environmental consequences of the new Forest Code are expected to be complicated. The area of forest exploitation will most likely shrink due to the decline of small and medium-sized businesses. The harvesting load in remote forest regions of the North is expected to decrease (in many regions this process is related not only to the new code, but also to rising transportation prices, warm winters that affect winter roads, insect outbreaks, and forest decline). But the

harvesting press on the most accessed forests in populated areas, especially along main roads and around settlements, is expected to grow. Partly, this growth will be related to weaker and less effective forest inspections and control systems. The old system has collapsed, and the new one has yet to be established, but it will certainly be much smaller and weaker. Furthermore, as the legal forest business becomes more complicated than ever before (especially for small companies and individuals), it is expected that many legal operations will be replaced by illegal or semi-legal types.

It is expected that the new Forest Code of the Russian Federation, due to all of these problems, will not remain unchanged for long. Initial amendments to it have already been made, but sooner or later the whole Forest Code should be redeveloped.

Alexey YAROSHENKO,
Head of Forest Department, GREENPEACE Russia





QUANTITY IS TRANSFORMING INTO QUALITY

This past year brought not only dramatic changes in forest legislation, but also a forest certification breakthrough in the Russian forest industry. Certified area has nearly doubled – from 8 million to 17 million ha. Thus, by the end of the first half of the previous year, Russia overcame Sweden and approached Canada, the world leader in forest certification, which has 18 million ha of certified forest area.

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It is worth mentioning, however, that forest certification in Russia operates on one standard – the Forest Stewardship Council (FSC) based certification scheme. This is largely explained by the stability of the markets for Russian timber, and timber producers are paying attention specifically to their requirements. The strictest environmental safety requirements are presently being made by European markets such as Germany and the Netherlands, which are traditionally linked with timber enterprises in Northwest Russia. These markets are demonstrating a growing influence from environmental groups and, consequently, toughening requirements to the environmental safety of products. The timeliest system of forest certification popular on European markets is FSC So, Russian enterprises oriented at this market choose the Forest Stewardship Council as a certification scheme. Therefore, this article will discuss FSC-based certification of forest management and chain-of-custody.

GROWTH EVERYWHERE

The previous year marked several notable events in Russian forest certification. Several large forest

plots with an area of 1.7–1.8 mln ha each were certified. Moreover, certification extended to the Leningrad and Kirov regions and Republic of Karelia which had not been involved in the certification process. It was the first time when small businesses began certifying their leased areas.

Lesintercom CJSC, Republic of Komi, became the pioneer among small enterprises which certified their forest management system. Their certified area is only 6,903 ha. It destroyed the widespread belief that certification of small areas is unprofitable, though the global picture shows examples of smaller certified areas. In June of 2006, Lesintercom CJSC joined the Association of Environmentally Responsible Timber Producers of Russia (FTN Russia) and developed and adopted its environmental policy, thus demonstrating that Russian small businesses can be environmentally responsible. The second certified small enterprise was Chart CJSC, in the Leningrad region; its certified area is a little more than 13,000 ha.

Last October, Andrey Ptichnikov, the head of FSC Russia, handed an international forest

management certificate to IlimSeverLes CJSC. By that time, it was the largest forest area certified.

“No doubt, our main goal is to supply timber to Kotlas PPM (now – Koryazhensky, a branch company of Ilim Group – please see editorial comment), our head enterprise,” said the general director of IlimSeverLes CJSC “A certificate of sustainable forest management will allow the enterprise to enhance its competitiveness on the European market. It is common knowledge that 80% of our output is exported, including environmentally sensitive markets. Such certificates are a guarantee of success for enterprises, whose success means the success of timber loggers.” On 1 November, 2006, the enterprise produced the first series of FSC-labeled market pulp.

IlimSeverLes, though, soon lost its leading position: in March, 2007, a holding of Segezhsky PPM certified 1.8 mln ha of forest area. Andrey Ptichnikov believes that the certification of Segezhsky PPM is an important stage in the development of responsible forest management. A point of special importance is that the company makes all efforts to eliminate gaps in forest management quality and handle issues that arise during the certification process. The company holds a dialogue with public organizations and supports forest management development initiatives. For example, the Model Forest project in Karelia. Such an approach ensures the success and recognition of the company both in Russia and abroad, and stimulates its expansion in Europe.

A significant growth of certified areas in Russia is mainly explained by the support of certification at all government levels – from municipalities (certification encourages the users to consider the interests of local communities during harvest operations) to federal agencies (certification helps create a positive image of the Russian timber industry). In general, it is noteworthy that the attitude of officials towards forest certification has changed recently.

“We came across a number of obstacles,” said Dmitry Zouyev, deputy director for the timber supply of Segezhsky PPM, in an interview to Forest Certification Bulletin. “First, the lack of actual support from executive agencies, especially forest management agencies. Declarations of support were

not really fulfilled, even on paper. The initiatives and offers of the company were rejected on formal pretexts, or left unanswered. The reason for this was obvious – a bulk of contradictions between RF Federal Laws, international agreements of Russia’s, and subordinate legislation. For instance, the law and standards provide for conservation of biodiversity, while a regulating act defines it as a forest offence entailing a penalty imposed by forest management agencies. The problem is aggravated by the actions of another agency of the Russian Ministry of Natural Resources – the Agency for Environmental Supervision which imposes administrative fines in addition to penalties.”

Generally, a significant growth of the certified area observed is accounted for by the desire of companies to ensure stable demand for their products on global markets; they are even ready to put up with the inevitable violation of Russian laws and penalty payments. Secondly, the words of the forest authorities of the country bear some weight, and sometimes positively influence regional forest authorities which tend to turn a blind eye to discrepancies between Russian and international standards. The regions whose authorities realize the necessity of the participation of timber producers in the certification process demonstrate larger certified areas and greater responsibility of the timber businesses.

RUSSIA IN THE LIMELIGHT!

Judging by the results of 2006, we may say that it saw one more important event: Russia was finally noticed by the FSC. During that year, Heiko Liedeker, the FSC’s executive director, visited this country twice and traveled not only to the capital, but also around the leader in forest certification – the Arkhangelsk region. In summer, a meeting of the FSC’s Board of Directors was held in Saint Petersburg. This is a very promising sign.

In June, 2006, just before the above mentioned meeting, the FSC Accreditation Committee approved accreditation of the Russian National FSC Working Group. The decision crowned a long period of consideration and improvement of an application filed by the National Working Group as early as September, 2005. Now the national group has all rights and powers provided for by FSC rules, and the standards prepared by the group may be accredited as national standards

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for Russia. The name of the group is FSC National Initiative in Russia.

The Accreditation Agreement between the Russian National Initiative and FSC was signed on 3 July, 2006 in the Federal Forestry Agency by Vladimir Chuprov, the FSC Russia contact person; Mikhail Karpachevsky, Chairman of National Initiative Board; and Heiko Liedeker, FSC Executive Director.

This decision became the final step of a process which was 8 years long. During that period, the Russian forest community learned the culture of discussion, and developed a uniform view of the problems and solutions in the area of forest management demonstrated by organizations engaged in forest certification and responsible forest management.

An initiative group called On Voluntary Forest Certification was created in May 1998, as suggested by the environmental organizations WWF, Greenpeace, the International Socio-Ecological Union, the Center for Wild Nature Protection, and Movement of Squads for Nature Protection. The group was headed by Vladimir Chuprov who became the FSC Russia contact person. The initiative group later turned into the National Working Group, which now includes 64 organizations and persons representing economic, social, and environmental sectors.

Having granted accreditation to the Russian National Initiative, the FSC recognized that Russia has become an important and noticeable player in the global certification market.

HOPE THAT IT WILL NOT BE THE LAST

Apart from this, Russia obtained its "own" FSC auditor last year: EuroPartner Company, which is based in Saint-Petersburg. Its accreditation contract was signed in June, 2006. According to this contract, the company may conduct a certification audit for compliance with FSC requirements. Finally, Russia has its first certification body entitled to provide services relating to FSC certification of forest management and chain-of-custody on the territories of Russia, Belarus, and the Ukraine. EuroPartner became the 16th audit company within the FSC system. Timber companies pin great hopes on this Russian auditor. These hopes are above all financial, because the cost

of certification is still high and the appearance of a Russian auditor may help reduce expenses on certification. Besides this, experts of an enterprise find it easier to communicate effectively with a Russian company than with a foreign one.

EuroPartner completed its first FSC audit at OJSC Pulp and Cardboard Mill (Bratsk, Irkutsk region), a member of Ilim Pulp Corporation, in early October, 2006. The mill certified its supply chain for compliance with FSC requirements. EuroPartner CJSC recommended issuing a certificate to the mill. Today, PCM got the right to put the FSC label on its finished products because its two main suppliers – OJSC ULiL and IlimSibLes CJSC – are holders of FSC forest management certificates.

In the meantime, Russia may receive another auditor soon: the certification association "Russian Register" stated its intention to conduct audits and issue FSC forest management certificates at the International Forest Forum held in Saint Petersburg. At present, "Russian Register" is in the process of accreditation with the Forest Stewardship Council. As Yury Ponomarev, senior expert and head of the forest certification programs sector of "Russian Register" said in an interview, "Russian Register" entered the FSC accreditation process at the end of 2005. Before that, it gathered and studied all information relating to FSC. Now the association is developing and agreeing on internal documents on forest certification and studying the experiences of other certification bodies. "We are planning to end up with preparation for contract signing with FSC," Yury Ponomarev added. "Russian Register" may probably become the Russian leader which will further enhance the growth of certified forest area, since the company, among other benefits, has an extensive network of branch offices throughout the country, including forest rich regions.

STANDARDS: REGIONAL AND NATIONAL

Today, we may state with confidence that the growth rate of certified forests may be even higher. It is hindered by the absence of national framework standards of FSC forest certification. The necessity of such standards is obvious.

All audit companies in Russia are working on their own standards complying with FSC standards. Certainly, differences between the standards are insignificant. Nevertheless, many of these standards do not consider Russian peculiarities, leading to multiple disputes. For this purpose, the Russian national standard is being developed and is aimed at facilitating not only the audit process, but also the work of timber companies intending to get a certificate on the territory of this country.

The first version of the standard was prepared by the national working group On Voluntary Forest Certification from 2004 to 2005, and submitted to FSC in September, 2005. During autumn of 2005 and the first half of 2006, the National Working Group and Accreditation Systems International negotiated revision of the standard to make it comply with the new FSC requirements.

The talks were initiated due to the fact that, while the Russian national standard was prepared, the FSC Board of directors adopted a special standard on preparation of national standards FSC STD 60-006, which specified and somewhat changed some early requirements to standard development.

In October of 2006, a meeting between Guntars Laguns, ASI representative, and Mikhail Karpachevsky, Chairman of the Board of the National Working Group, was held in the city of Syktyvkar (in the Republic of Komi), which discussed the FSC requirements for the Russian standard, and approved a time schedule for standard revision.

In accordance with this time schedule, a meeting of the Coordination Council National Initiative for FSC-certification was held on 23-24 November in the Moscow FSC office, and attended by regional working groups from Krasnoyarsk, Komi, Arkhangelsk and the Far-East.

The official English translation of the revised national standard was sent to ASI in early February, 2007.

There is one more reason why the delay in accreditation of national standards hinders the growth of forest certification. The thing is, FSC rules provide for both national and regional forest certification standards. Today, several Russian regional groups are developing such standards.

Generally, regional standards are made to create unified reference standards and requirements to companies, operating in regions which are to be used by experts of all audit companies. The companies referring to such regional standards will clearly understand all requirements regarding their activities. Nowadays, however, audit companies refer to the internal standards developed for all of Russia without consideration of regional peculiarities. Standards developed on a regional basis are expected to fill this gap.

By this time, standards of the Krasnoyarsk region, the Republic of Komi, and the Khabarovsk region have been completed. The Arkhangelsk region is approaching completion of developing such a standard. However, their consideration by FSC is impossible prior to the approval of the national standard. When this is done, regional standards may be submitted for approval correspondingly.

IMPROVING PERFORMANCE

Besides seeing positive and purely emotional events, the previous year saw the first scandal related to the unfair certification of the Lescom Company (Republic of Komi).

Greenpeace Russia was the first to signal the poor quality certification of Lescom. At the meeting the FSC Board of Directors, the Forest Program Coordinator of the public organization said that the audit of Lescom was held in violation of FSC requirements. There was speculation that the auditor did his best to prevent public discussion.

It is known that the Forest Stewardship Council does not perform certification audits by itself. This is done by FSC-accredited companies. FSC representatives regularly check the activities of such audit companies to assess the quality of their work and its compliance with FSC requirements. Five international, and one local, audit companies operate in Russia nowadays. In the Republic of Komi, FSC certification is conducted by two companies – NEPCon and Skal. In early October of 2006, Guntars Laguns, FSC Accreditation Program Coordinator, and Victor Pankratov, Russian expert and Head of Non-Commercial Partnership of Forest Certification Participants in the Kirov Region, assessed the work of Skal Audit Company, which certified OJSC Lescom.



DATA ON CERTIFICATION AS OF 25 JULY, 2007

Enterprise Period	Area (ha)	Certificate validity
Arkhangelsk Region		
OJSC Svetlozerskles	171,900	12.08.2009
OJSC Maloshouykales	336,445t	02.06.2008
OJSC Velsk LPP	68,035	12.06.2010
OJSC Ust-Pokshengsky	458,892	16.05.2010
OJSC Zelennikovskoye	89,872	12.07.2010
OJSC Shalakoushales	274,172	17.05.2010
OJSC Nimengales	187,000	05.04.2010
Toyma-les, a subsidiary of Solombala LDK	166,379	16.10.2010
PLO Onegales (group)	1,133,451	11.12.2010
IlimSeverLes CJSC (group)	1,677,413	03.10.2011
OJSC Dvinskoy LPKh	131,925	30.12.2011
<i>Total in Arkhangelsk region</i>	<i>4,695,484</i>	
Vologda Region		
OJSC Bely Ruchey	398,000	20.07.2009
OJSC Belozersky	221,492	24.08.2009
Avtodorles CJSC	35,183	15.03.2011
OJSC Cherepovetsles	312,567	02.07.2011
OJSC Syamzhensky LPKh	31,604	03.06.2012
<i>Total in Vologda region</i>	<i>998,846</i>	
Primorsky Krai		
OJSC Terneyles	1,394,488	15.11.2009
<i>Total in Primorsky Krai</i>	<i>1,394,488</i>	
Altai Krai		
Kosikhino Rural FMU	32,712	
<i>Total in Altai Krai</i>	<i>32,712</i>	
Novgorod Region		
Madoc CJSC	31,200	
<i>Total in Novgorod region*</i>	<i>31,200</i>	
Krasnoyarsk Region		
OJSC Novoyeniseysk LkhK	49,333	25.04.2009
OJSC Lesosibirsk LDK № 1	219,155	29.12.2005
Nizhneteryansky Forest Farm	277,175	21.12.2011
<i>Total in Krasnoyarsk region</i>	<i>545,663</i>	
Kirov Region		
OJSC Kay	124,203	12.07.2009
OJSC Zalazninsky Forest Enterprise	48,615	08.11.2010
Mayskles CJSC	174,000	01.12.2011
<i>Total in Kirov region</i>	<i>346,818</i>	

Note: * excluding AOP Stora Enso "Russian Forest Sector".

Enterprise Period	Area (ha)	Certificate validity
Pskov Region		
OJSC STF Strug	22,504	31.07.2008
<i>Total in Pskov region*</i>	<i>22,504</i>	
Republic of Komi		
Komilesbusiness CJSC	62,727	02.05.2010
Priluza FMU	794,409	29.03.2008
OJSC Lescom	78,362	03.11.2010
Luzales CJSC	36,169	29.12.2010
Koygorodsky FMU	613,301	19.04.2011
Sysolsky FMU	581,850	19.04.2011
Lesoval CJSC	53,215	31.10.2011
Lesintercom CJSC	6,903	01.11.2011
Yasnoglesprom CJSC	54,063	07.12.2011
<i>Total in Republic of Komi</i>	<i>2,280,999</i>	
Irkutsk Region		
IlimSibLes CJSC (group)	1,589,944	12.08.2010
OJSC ULiL	1,055,759	23.02.2011
<i>Total in Irkutsk region</i>	<i>2,645,703</i>	
Republic of Karelia		
Swedwood Karelia CJSC	514,695	08.10.2011
OJSC Segezhsy PPM	1,795,482	21.02.2012
<i>Total in Republic of Karelia*</i>	<i>2,310,177</i>	
Leningrad Region		
Swedwood Tikhvin CJSC	161,329	08.10.2011
Chart CJSC	13,389	21.12.2011
PKF Kvinteks CJSC	26,988	29.12.2011
OJSC Tikhvin KLPKh	184,061	19.04.2012
<i>Total in Leningrad region*</i>	<i>385,767</i>	
Perm Region		
OJSC Solikamskumprom	881,475	02.12.2011
<i>Total in Perm region</i>	<i>881,475</i>	
Leningrad, Pskov, Novgorod Regions and Republic of Komi		
AOP Stora Enso "Russian Forest Sector"	423,782	21.12.2011
TOTAL IN RUSSIA	16,995,618	

The inspection was regular and held in accordance with a three-year period schedule. Having questioned in writing different forest stakeholders – FMUs, municipalities, Forestry Agency in the Republic of Komi, and Silver Taiga Fund, the inspectors came to the conclusion that the main audit, which served the basis for FSC's certification decision with regards to OJSC Lescom, had been conducted inappropriately. As a result, both the auditor (Skal Company) and the applicant (OJSC Lescom) faced a cluster of problems. The latter found itself unaware of the environmental and social requirements of forest management carried out on the leased forest area.

In the meantime, FSC representatives conducted an additional inspection of NEPCon audit activities. The baseline assessment of this company was held within the framework of the regular audit of Priluzsky FMU last year. During this visit, the FSC's experts traveled to Priluzsky FMU again to check how the auditor controls fulfillment of certification requirements related to the forest inventory management project time schedule. The inspection showed that this pre-condition may be withdrawn as Priluzsky FMU is undergoing forest inventory at the moment. Voluntary FSC forest certification encourages companies to do civilized business and helps create an image of responsible forest users, and thus ensures expansion of their products to environmentally sensitive markets. Timber companies entering the FSC certification process, however, must realize that this process includes not only a two-party contract between the company and the auditor; it requires the engagement of many forest stakeholders. Moreover, FSC procedures require that the certification process be open to all stakeholders: forest management agencies, governmental and local authorities, various supervision agencies, public organizations, and local communities. All these stakeholders must be duly informed about the company's preparation for certification. This responsibility is born by the enterprise. And the auditor is to open the certification process and practical consulting with the interested parties.

During the meeting between the FSC Board of Directors and Russian forest certification participants which took place in Saint-Petersburg, Heiko Liedeker, FSC Executive Director, highlighted the intention of FSC leadership to monitor carefully the quality of work of audit companies throughout the world in order to ensure high quality of certification

as this is the only way to guarantee customers' trust in FSC-certified products.

RUSSIA: A SPECIAL WAY?

Nevertheless, experts and environmentalists believe that Russia should have its own forest certification system and that it should be harmonized with other international systems. The PEFC and FSC are still strong. Such ideas appear quite regularly for those standing at the top of the Russian forest industry. However, these ideas have not yet found their expression in actual standards, or attempts to offer an authentic forest certification concept.

Today, Russia has a National Council on Voluntary Forest Certification aimed at creating a national system of voluntary forest certification and ensuring its global recognition.

Draft standards for sustainable forest management and use developed by the council have been harmonized with principles, criteria and indicators of the PEFC Council and FSC. This procedure will be a weighty argument in favor of international accreditation of the Russian national system of voluntary forest certification.

Unfortunately, the national forest certification system seems to be still far from actual recognition.

PROSPECTS EXIST

Development of forest certification in Russia may be regarded as an emergence of another competitive advantage allowing national forest-related industries to strengthen their positions on international markets. Nowadays, many users ignore products made from wood of doubtful origin. The lists of requirements often include the "availability of certificate" point. The only drawback of one monopolized certification developing in Russia is that, despite recognition of the FSC by all markets where Russia is present, other product certificates (for example, PEFC) are sometimes required. Moreover, emergence of one more certification scheme will stimulate the development of forest certification as a whole and enhance the environmental, social, and economic responsibility of the forest businesses.

Alexander GREVTSOV



THREE QUESTIONS TO A. PTICHNIKOV, HEAD OF THE FSC IN RUSSIA:

– *The FSC has actually monopolized the forest certification market in Russia. What do you think are the reasons for this?*

– It may seem strange, but several certification schemes other than FSC are already operating, or have tried to operate, in Russia. Several years ago, a well known expert in the Moscow State Forest University developed and registered its voluntary forest certification system, but no one certification process was held during these years. There were attempts to implement a Tiger Certification system in the Far-East, but as far as we are aware, no certification was held according to that scheme, either. Not to mention, there was compulsory certification which was attempted in Russia, but then reasonably rejected.

Initially, the FSC was to be a system which, on the one hand, improved forest management, and on the other hand allows the enterprise to enter environmentally sensitive markets. For example, in Canada, where two certification systems (CSA and FSC) are applied, the market knows almost nothing about CSA, but is well informed about FSC (250 chain-of-custody certificates for 18 mln ha).

Actual competition between forest certification systems is observed only in Europe, where FSC and PEFC (formerly the Pan-European Forest Certification System, now the Certification System Recognition Program) are the two main competitors.

It is commonly recognized that FSC has stricter requirements regarding forest management quality than PEFC does.

– *Have you, as an FSC representative in Russia, the authority to control the quality of certification?*

– Yes, I have such an authority. First, we send out information about the audit to stakeholders, receive feedback, and transfer it to the auditors. Stakeholders are public organizations including trade unions and governmental bodies. Secondly, we control formal aspects, such as the possibility of conducting a quality audit or regular annual monitoring for the period determined by the auditor. Now that we have received an opportunity to use materials obtained by distance probing by the Russian Forestry Agency, the FSC National Initiative is launching a project for monitoring problematic companies using satellite data.

We see a list of violations typical for Russia. In particular, the so called stakeholders often include only persons and organizations loyal to the company. Some auditors turn a blind eye to this fact. We cannot stand this. Now we are negotiating opportunities to make a unified list of such organizations, to prevent auditors and companies under certification from selecting “comfortable” stakeholders, and encourage them to engage respective specialists and organizations.

– *The new Forest Code has no reference to forest certification. Will it affect the scale of forest certification in Russia?*

– I can say that certification develops irrespectively of the Forest Code. Certification is a market requirement. When the Forest Code was under consideration, I took part in negotiations with officials from the Ministry of Economic Development who were its authors. The Ministry had nothing against certification, but they believe that voluntary certification does not need special regulation. That is why certification was excluded from the code. MED logic is obvious. The government says, through its officials, “We support forest certification, since it releases the government from some commitments regarding the improvement of forest use quality, ensuring compliance with FLEGT requirements, and timber trade which are now the FSC’s responsibility.”

The idea offered by the Forestry Agency in the previous Forest Code draft was to regulate certification with the help of corresponding acts and make it compulsory. Instead of this, two forest certification councils are developing a national system or, to be precise, systems of voluntary forest certification.

The scale of certification is determined mainly by the market which in its turn obviously tends to reject non-certified products. As for the rate of certification, it does not seem to be slowing down. In early 2005, the certified area in Russia was approximately 2 mln ha, in 2006 it was approximately 9 mln ha. The certified area growth for the first four and a half months in 2007 was 5 mln ha. This signifies the development of a certified products market in Russia. The same has been true recently in Japan, and even in China. Earlier, large companies entering the certification process could be suspected of the desire to improve image and capitalization, but now medium and small businesses have joined the process. The latter feel and respond to market requirements like no other.

WE WILL FIND OUR OWN WAY...

While this issue of Russian Forestry Review was being prepared for publication, the Federal Forestry Agency (Rosleskhoz) officially announced the creation of the Russian National Voluntary Forest Certification System. Its abbreviated name is FCR.

According to officials, the National Forest Certification System was initiated and established by the Russian National Forest Certification Council, whose founders include the Russian Center for Forest Protection, Moscow State Forest University, RAO Bumprom, Ilim Group, All-Russian Research Institute of Forestry and Mechanization of Forest Management, and several other leading enterprises, as well as research and public organizations in RF forest sector. However, unofficial sources confirm that it is Rosleskhoz which pushed the National Forest Certification System into existence and is planning to use the system as a governmentally recognized forest certification system.

“Russia is becoming highly competitive with other forest-rich countries on the global market, which shows a growing demand for certified forest products and stiffening bans on uncertified products,” says Mikhail Kobelkov, Director of the Russian Center for Forest Protection. He believes that the National system is best able to ensure sustainable forest management and create a powerful antidote against shadow turnover of timber. “If everything is done properly, we may expect a significant – more than fifty percent – reduction of illegal timber trade. The national system will become an effective instrument of the Program for Prevention of Illegal Timber Harvest and Trade approved by the RF Government in 2007,” he says.

The national system is underpinned by Russian forest and environmental legislation – the new version of RF Forest Code and its subordinate acts. Moreover, the standards of the National system have been harmonized with international criteria and indicators. FCR founders are sure that this will be a weighty argument in favour of international accreditation of the national system.

We may suppose with a high degree of assurance that an attempt will be made in the near future to certify FCR in the Pan-European Forest Certification system, as the latter is oriented at the recognition of national systems. With

this instrument, Rosleskhoz intends to bring the global market to recognize the national system.

According to FCR specialists’ forecasts, certified forest area may exceed 20% of AAC three years from now due to implementation of the National system, while today this figure is only 2%. Sweden, Germany, Finland, and Austria, for example, have certified 100% of their forest area.

FCR standards are based on almost the same principles as those of other forest certification systems such as FSC, and PEFC. Moreover, FCR admits that standards for forest product supply chains – the so called chain-of-custody – were developed on the basis of the similar PEFC document. Forest management standards are also going to be developed.

One of the major reasons why the leading holdings supported the National Forest Certification System is because it will be cheaper than other systems, e. g. FSC. The cost of FSC certification of 1 ha of forests for enterprise approaches one dollar. FCR certification is expected to be priced at approximately 0.2–0.3 dollars per ha.

Mikhail Kobelkov believes that FCR voluntary forest certification should become one of the instruments for controlling the activities of forest leaseholders after delegation of governmental duties relating to forest guard, protection, and regeneration on leased lands (following the new Forest Code).

The prospects of the National Forest Certification System are still unclear, though. It is obvious that the system will exist, and be maintained at the highest level, with the support of the government. However, recognition of the national system by the international markets must become a priority. The future of FCR will be clear only after its accreditation with PEFC and successful certification cases verifying compliance of companies’ forest management with national standards.

BIG OPPORTUNITIES BRING HOPE REALITY KILLS IT

Logging is commonly considered a basic sector of the timber industry. Economic success of both logging and timber processing companies (sawmills and pulp and paper mills) depends on the efficiency of logging. Yet, in the timber complex of Russia, only pulp and paper mills can be considered more or less successful – they are the only entities in the timber industry that make some profit. Sawmills mostly are hardly making it, and about 70% of the logging companies are unprofitable. The only exception is made by modern factories constructed or completely modernized during last few years, only they make for the owners significant profit.

It was during Soviet times that such a profitability gap in forest sub-sectors was formed. At present, logging companies are paying for the policy adopted in the timber industry back then. At that time, forest management was organized as follows: logging companies operated with no profit (they were planned, as a rule, as unprofitable enterprises), sawmills gained some profit, and pulp and paper mills skimmed all the cream off the top of the forest business (in as far as this term can be applied to a planned economy). Unfortunately, it is still difficult to change this attitude in the timber industry.

TRENDY TALKS

Lately, there has been a significant tendency to consider the timber industry, with its present contribution to the gross domestic product valued at 1.2% (see Figure 1), capable of making a radical change in the structure of tax proceeds. It is quite possible that, in several years, the timber industry will become a leader of the Russian economy, leaving behind the fuel and engineering industries that are currently making about 40% of the country's industrial output. This requires few things. It requires competent management of forest resources, and their competent regeneration. However, resource management fails to be competent so far, with rare exception.

In 1990, logging companies of the Russian Federation harvested over 300 million cubic meters of wood. In 2006, this figure was 180

million cubic meters. This volume is three times less than the officially stated annual allowable cut (AAC), which has stayed at the level of 510–530 million cubic meters for the last few years.

The lion's share of the allowable cut belongs to softwood (see Table 4), for which there is a high demand, owing to its strength properties. Harvested wood and timber production (as is well known, Russian wood is much more solid than, for example, that of tropical tree species. Consequently, it allows for totally different, much higher quality sawn goods and paper) find a stable market throughout the world.

It should also be noted that average exploitation of AAC is 30%, and this is not implemented evenly everywhere. The most intensive harvesting is reported in the cross-border regions of Northwestern Russia (the Republic of Karelia, and the Leningrad and Pskov regions) with up to 60% of AAC implemented. Minimal harvesting is noted in a number of Siberian and Far-Eastern regions located farther away from the borders of China and other Asian countries.

An enormous volume of standing wood is an indisputable advantage of the Russian logging industry. As per FAO data, 22% of the world's forests fall to the share of Russia. The area of Russian forests is 851.4 million ha, and wood stock is valued at nearly 82 billion cubic meters (see Figure 2). Brazil is close to us with its 71.3 billion cubic meters; however, the quality

of its forests should not be compared with that of the Russian ones. And all other countries are far behind.

Thus, depending on the official statistics, the future of the Russian logging industry seems to be exceptionally bright – the country has huge volumes of mature wood, non-exploitation of which causes losses to its timber industry, as well as to its forests.

However, the statement above is not exactly correct. Problems that exist in the logging industry impede its development.

WE HAVE QUALITY, BUT NO MONEY

Russian forests are now internationally popular – from America to Asia. Moreover, international partners have part of their production oriented around round wood from Russia. So, of the 180 million cubic meters of annually harvested wood, over 50 million cubic meters of round wood is exported. China is a leading buyer of round wood. Last year, for example, about 20 million cubic meters of wood was exported to Chinese timber processing mills. Significant shares of the supply are taken over by Scandinavian countries – primarily by Finland, which owns several large pulp and paper mills along the Russian border to process Russian raw material.

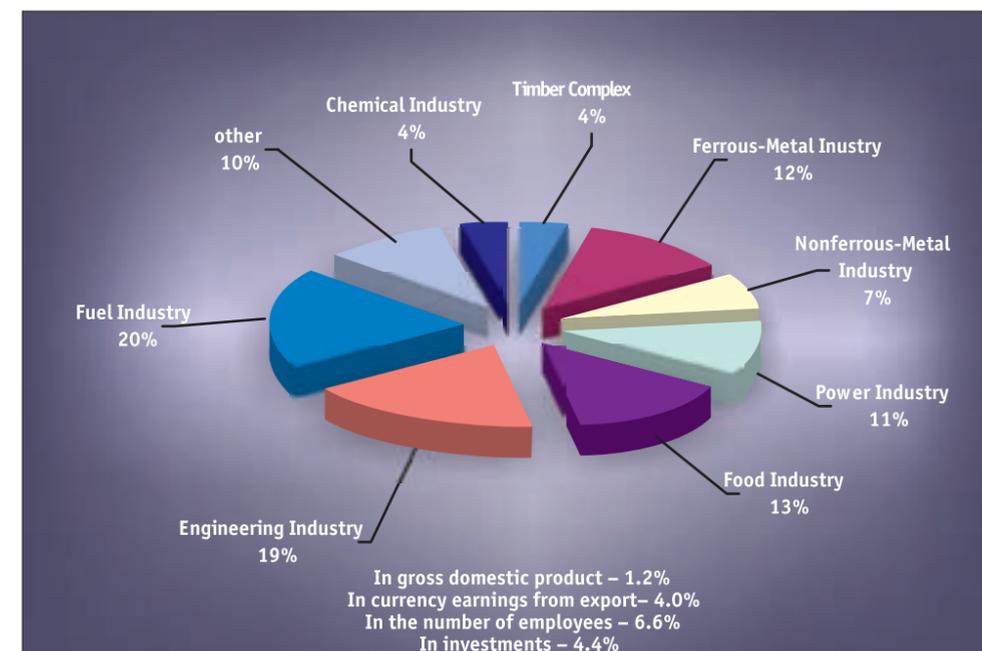
However, Russian wood's quality properties notwithstanding, its export price is 20–25% lower than similar production from other countries – the average price is \$60 per 1 cubic meter (see Table 2). The reason for such low prices lies in the fact that most of the Russian exporters have no international ecological certificates. Moreover, this setback is also influenced by a large number of smaller timber exporters who literally pile into the market, forcing large timber processing companies to take to their rules.

For many logging companies, export was once vital during hard times, as the export prices existing then were considerably higher than the domestic prices for round wood. The country's timber processing companies are now unable to provide a decent price for raw pulpwood. So, to keep the shirts on their backs, loggers have to export pulpwood to higher bidding mills.

Lately, a deficit of raw wood has seriously affected saw mills, and has practically made prices for saw logs double. Now, the domestic price for this type of raw material amounts to \$100 per 1 cubic meter. Unfortunately, this is overpricing, and multiple intermediate parties pocket the difference. At present, sale of saw logs is one of the most profitable business activities in the forest industry.

Figure 1

Share of the Russian Timber Complex in Total Industrial Output



Data: Ministry of Industry and Energy



Table 1

Russia's% of Share in the World's Forest Sector

Types of forest production	In timber production	In timber consumption	In timber export
Round wood	5.2	4.0	33.8
Sawn timber	5.2	2.1	9.9
Plywood	3.3	1.2	6.6
Particle board	3.8	4.3	0.8
Fiberboard	2.5	2.2	1.5
Paper and board	2.0	1.5	2.4

Data: Ministry of Industry and Energy

HOLDINGS VS. EXPORT

All Russian logging companies – over 30 thousand throughout the country – can be conditionally divided into 3 solid blocks:

- Logging operations integrated into large timber processing holdings
- “Independent” logging enterprises established on the basis of the Soviet lespromkhozes
- Newly established small logging companies and private entrepreneurs

Strange as it may seem, the situation is the worst at lespromkhozes that have been integrated into timber processing companies. The reason is that the owner – for example, a timber processing company – restricts the freedom of a lespromkhoz in the shipping of its production. The owner strictly defines to where, in what amount, and at what price (as a rule, less than fair) the lespromkhoz should supply raw material. In the case that the owner

is a pulp and paper mill, the lespromkhoz is not allowed to ship raw pulpwood elsewhere, except to the pulp and paper mill itself. At the same time, saw logs that are “not demanded” by the owner can be sold at a logger’s option. Still, it is becoming more and more frequent that both pulp and sawmills integrate into holdings, and therefore, lespromkhozes are fully deprived of freedom of action. As a result, it is not rare that “integrated” lespromkhozes go through bankruptcy several times.

The situation with “independent” lespromkhozes is a little better, although they are very often only balancing on the verge of breaking even. This is connected to the fact that large logging companies are township-forming for many forest settlements, and during Soviet times it was usual for lespromkhozes to support forest settlements. In most of the settlements, such practice is still hard to avoid – logging companies are loaded with additional (non-tax) burdens that send them to the bottom. However, due to their independence, these companies sell their harvested wood to those processing companies that offer a decent price. That way, lespromkhozes are operating with no loss. Generally, such lespromkhozes work for export.

Small logging companies and private entrepreneurs show exceptional profitability. Having no burdens, they may choose which is economically advantageous, whether that is to work for the domestic market, or for the foreign market. As a rule, these companies are the most profitable enterprises of the timber industry. Nevertheless, some regional authorities are trying to put restrictions on their business activities: in order to support the regional economy, forest businessmen are forced to organize wood processing within the constituent territory of the Russian Federation. If a private logger sells raw materials outside his/her region or the country, then he/she might not be given any forest area in the future.

Table 2

Export Prices for Main Production Types, USD/t or USD/m³

	Russia	World
Round wood	59.6	75.8
Sawn timber	128.7	225.5
Plywood	348.2	386.6
Particle board	206.8	256.8
Fiberboard	270.6	333.9
Pulp	390.8	479.0
Paper and board	510.1	767.0

Reasons for low prices:

- inferior quality of production
- lack of international certification
- resp. to round wood – a big number of small exporters



Regional authorities have not been the only ones resisting raw material export outside their regions lately. This opposition is supported by the Russian government itself, which has adopted a set of measures aimed at the termination of round wood export. Stepwise lifting of export duties for round wood was started July 1, 2007. The rate of export duty was increased to 20% (no less than €10 per 1 m³). The second stage will start January 1, 2008 – 25% (no less than €15 per 1 m³), and in 2009, the duty will grow to 80% (no less than €50 per 1 m³). These are the toughest terms in the world for raw material export. The logic of the government’s action is clear: round wood should not be exported when domestic timber processing companies frequently lack raw material and existing capacities are hardly loaded halfway.

Moreover, it is extremely depressing that, considering Russia’s 5.2% share in round wood production, its share in the world’s export of round wood amounts to 33.8%! The Russian Federation is a global leader in round wood export! (see Table 1)

Increased export duties for round wood will not be particularly influential in terms of the financial state of logging companies located in the regions with developed timber processing – raw material is always sold here. The Komi Republic and the Arkhangelsk region, for example, can consume practically any volume of round wood. But the Russian cross-border regions that once depended on round wood export will definitely suffer big losses. This especially concerns Karelia, the Irkutsk region, the Krasnoyarsk Territory, and a number of other regions. It will also affect logging operations that will be forced to sell raw material to the home market for lower prices.

Finnish and Chinese buyers of Russian round wood will most likely overcome the first stage of 20% growth of export duties with little loss. Even in such a situation, Russian raw material will stay competitive. But further actions of the government will probably stop the export of round wood. Thus, according to Yury Shkin, director of OJSC “Konoshales” (in the Arkhangelsk region), the company’s partners are ready to purchase birch pulpwood after the first duties’ increase. However, after January 1, 2008, they evidently will withhold from purchasing raw materials in Russia. Deciduous species make up 80% of the forest resources of this enterprise.

Taking that into account, its future becomes totally unclear, since the sole buyers of hardwood pulpwood in Russia are pulp and paper mills that do not offer a decent price.

BLANK SPACE

The Russian Federation has huge potential in terms of logging development. It has already been noted that the allowable cut throughout the country generally reaches 530 mln cubic meters, although only one third of that is implemented. One of the main reasons for such “under exploitation” is inaccessibility of forest resources – regions that are rich in forests have no roads for timber transportation.

According to the State Forestry Agency (Rosleskhoz), there are only 1.2 km of forest roads per 1 thousand ha of forests. This figure is 40 times less than in Germany, and 35 times less than in Finland. As the governor of the Arkhangelsk region, Nickolay Kiselev, said in an interview, “Forest road network in Finland looks like a dense web, and what we have is just a blank space.”

Unfortunately, the absence of forest roads is a deterrent for logging development. 70% of AAC is inaccessible for logging companies. It is impossible to harvest there, to deliver machinery, and to remove harvested wood. This statement can be proved by two things: a road



map and a scheme reflecting an actual harvest share in the average wood stock addition. Putting the two together, it can be seen that the highest exploitation level of allowable cut – up to 60% – can be observed that the road network is quite well developed in the European part of Russia, but hardly developed at all in Siberia and the in the Far-East (where at times there are no roads for thousands of kilometers around).

Road construction in Russia is a vitally important, long-term field of activity for which there is a high demand. The Federal Government has finally become aware of this. It is impossible to significantly increase harvesting without making forests accessible for transport. There is no way to perform efficient fire protection without road network development, as most forests are located in remote areas beyond the reach of forest fire engineering. However, this is just a simple matter of understanding.

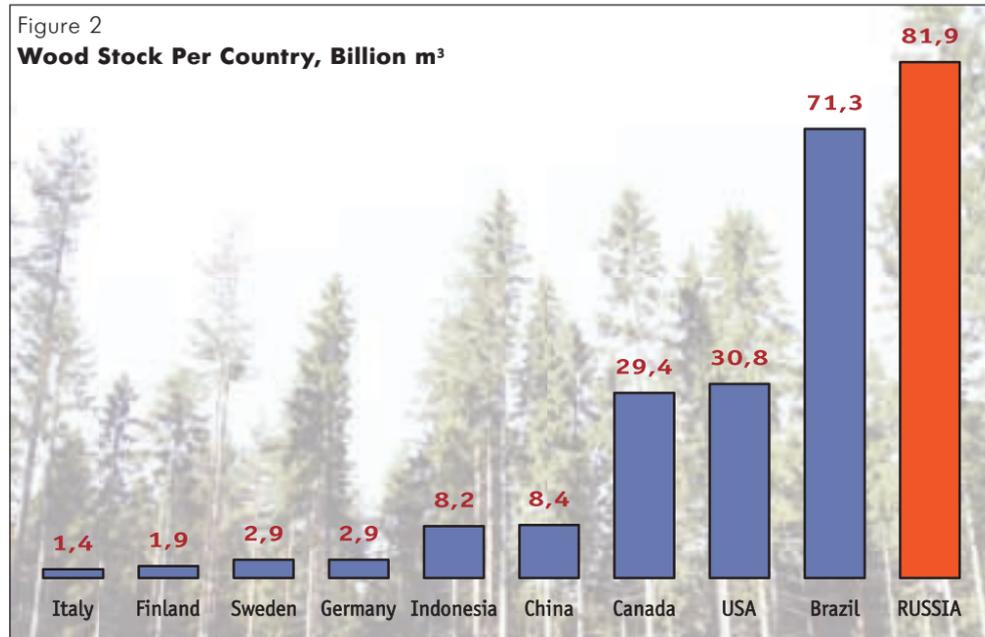
Several years ago, an attempt was made to develop the Federal Target Program Forests of Russia. This program was aimed at the construction of 12.5 thousand km of new forest roads, together with implementation of core reforestation measures. This would allow doubling the wood harvesting in the country in the very near future. Alas, the program and its separate clauses were not supported by economic ministries (mainly, the Ministry

of Economic Development). So, now is not the time to expect a sudden burst of forest road construction, and thus, harvest volume will not spurt.

At present, other variations of state participation in construction of forest roads for wood transportation are being considered, but it is too soon to speak about their implementation. One of the more realistic variations concerns constructing forest roads at the expense of the budgeted funds allocated to unexploited forest areas, and then auctioning off these areas for a higher price. That way, the state would improve the accessibility of forest resources, and be able to work out the funds spent for road construction by taking advantage of the increased price for standing wood. Despite the fact that this is the most practical variation of road construction development that is currently being considered, it requires changes to a set of federal laws (particularly, to the Budget Code). The government is not ready for it yet.

LOAD ON BUSINESS

Any business chooses the most optimal connections with authorities. To put it simply, the task of business is to employ people, to pay them a decent salary, and to make timely tax payments in a full scope. The task of authorities is to allow business opportunities to develop. In Russia, unfortunately, there are no such ideal relations between logging companies and the government.



At present, most timber enterprises duly pay all taxes and salaries, and ensure optimal working conditions for their workers. In this case, the state should not make any claims on the logging companies. But often things happen on the contrary: the state tries to make a company that has duly paid its taxes render “voluntary” assistance to the town, village, or settlement where it is located. This can be things like carrying out reconstruction work/performing maintenance on community buildings and streets, or providing firewood to the local population. For some reason, this type of state extortion is usually called the “social responsibility of business.”

In most cases, being township-forming, the companies are not against providing such support to local communities. However, if the state collects money from loggers in one area it should return it to another – for example, by tax remissions. But this does not happen. As a result, the companies have to spend their money on activities that should be financed by the state, not by a private business.

Such diversion of means to non-specialized activities hampers logging companies’ abilities to purchase new harvesting machinery to improve their labor productivity and, consequently, their work efficiency. That is why they are forced to apply old technologies that were used 20–30 years ago by operating outdated machinery.

TECHNOLOGIES OF THE PAST

Harvesting machinery and “producing a cubic meter,” is a separate story.

An overwhelming majority of harvesting machinery in Russian forests is home-grown.

It provides wood harvesting by a so-called full-length technology. Generally, the relationship between domestic and foreign machinery, when applied to Russian wood, steadily favors foreign manufacturers. While the purchase of one such harvesting unit was an extraordinary event for the whole country some years before, today this equipment (mainly, harvesters and forwarders) is purchased by hundreds of units. Russian loggers prefer foreign machinery.

On the one hand, such “non-patriotism” benefits the timber complex. Although foreign machinery is more expensive than Russian, it can replace a large number of home-grown equipment units, and its pay-back period is shorter than that of Russian machinery. Moreover, timber complexes can drastically increase labor productivity, which plays an important part in companies’ economy. Knowing this, the state authorities make concessions in customs tariff regulation by canceling import customs duties on harvesting machinery for which there is no similar model produced in Russia.

On the other hand, the Russian logging industry becomes dependent on international equipment in this situation, and gradually loses its economic independence. A machinery run is dependent on a stable supply of spare and wear parts. There is a high risk of running into infringing articles and then wrecking the equipment. Certain conflicts on the state level may well lead to a temporary delay in spare parts delivery by international suppliers, which will stop operation of imported logging equipment.

At the current moment, domestic engineering plants producing forestry machinery are actually

Table 3
Production Forecast in the Timber Industry of the Russian Federation through 2015
(data of the Federal Target Draft Program Development of Advanced Timber Processing Capacities and Exploitation of New Forest Areas through 2015)

Production	2005	2010	2015	2005
Wood harvested,* mln m ³	186.5	243.8	294.3	157.8
Sawn timber, mln m ³	22.5	36.0	45.0	200.0
Plywood, mln m ³	2.6	3.6	5.0	196.0
Particle board, mln m ³	4.0	6.5	8.0	197.7
Fiberboard, mln m ²	396.8	780	1 220	307.5
Commercial cellulose, mln t	2.4	4.5	5.6	231.5
Paper, mln t	4.0	6.4	8.9	224.3
Board, mln t	3.1	5.2	8.5	278.2

on the decline. Two main tractor plants, Onezhsky and Altaisky, have radically cut down their output of forestry tractors over the last 15 years. In the 1980's, the Onezhsky Tractor Plant produced 12 thousand tractors per year. Today, this figure is only several hundred. 1–2 tractors per quarter are generally considered to be a great success. None of the Russian logging companies want to buy obsolete technical equipment!

Russia itself can provide just one item of logging machinery – hydraulic manipulators. Every year, the percentage of Russian companies producing this lifting machinery grows. The current share of new imported hydraulic manipulators is approximately 20% on the Russian market. The rest is occupied by Russian manufacturers like the "Podjemnye mashiny" holding ("Velmarsh" and "Solombalsky Engineering Plant"), which takes 60%, the Maykopsky Engineering Plant, which takes 15%, and other smaller plants. These companies also have plans to conquer the whole Russian market for hydraulic manipulators, as well as to compete with international manufacturers in their field.

Hence, the development of the logging industry should presently be considered jointly with the development of the engineering sector. It is expected now that the state will assist international producers of modern technologies by tariff preferences and provide support to

domestic engineering as well. There is potential for Russian machine-building to supply logging companies with modern equipment, but in the existing situation, without government support, it is practically impossible.

FROM THE BOTTOM UPWARDS

So-called vertically integrated structures play a big part in the timber complex of Russia. These structures combine all the stages of the timber production chain – from harvesting to the final product. In some regions, a share of holdings in harvesting reaches 90% and so, these structures can influence both the economic and political elements of business.

Throughout the country, there are perhaps just a few established large vertically integrated holdings – "Ilim Pulp" (now – "Ilim Group"), "Titan," "Mondi Business Paper," "Continental-Management," "Northwestern Timber Company," "Investlesprom," and some others. One great advantage of these holdings is that, thanks to having pulp and paper mills in their structure that get all the cream, they can invest quite substantial amounts in the development of logging operations as well. It is the holding companies which are purchasing a lion's share of the modern foreign equipment and making a rapid transition to the cut-to-length (CTL) technology which is currently considered to be the best and the most advanced in Russia.

At the same time, lesmpromkhozes integrated into holdings lack independence in business and simply satisfy an owner's wish.

There are two diametrically opposed viewpoints in Russia concerning the future of timber holdings. Some experts think that the timber complex can develop only with establishment of such national corporations. Others, on the contrary, are sure that independent companies that are free to do their business can supply timber processing enterprises with raw material, and also stably develop their business, purchase modern machinery, and manage forestry in the areas entrusted to them.

FORESTS ARE NOT THE SAME AS THEY USED TO BE

Another factor that affects weak development of logging operations is changing forest composition.

Softwood is the most valuable wood, and is demanded by the industry. However, harvesting in Russia was developed based on the extensive method used during previous decades – harvesting volume was increased by exploitation of new forests, and practically no reforestation was carried out after logging. As a result, coniferous tree species were replaced by faster growing deciduous species (mainly, birch and aspen). In soviet times, this was not a critical issue. Immense road-building (thousands of kilometers of forest roads each year) enabled loggers to go deeper and deeper into the forest, ensuring a stable growth of harvested volume.

Intensive harvesting of softwood leads to the natural replacement of coniferous tree species by deciduous species with wood of little value. Moreover, large forest areas are waterlogged, which causes swamping after logging. It is hard to grow a good forest in such conditions without taking special measures. Forest regeneration in Europe is implemented on the state level. Millions of seedlings of highly-productive species are grown on the line for forestry needs. In Russia, it's different. The production of planting stock and coniferous seeds procurement is decreased every year because of deficient financing.

At the beginning of the 1990s, when road construction was almost shut down, large logging companies had to operate in already exploited forests. And here it was found out that there was practically no coniferous forest left – it was replaced by deciduous forests that are not demanded in the home market, since there is no processing technology for hardwood in the country. Consequently, the companies bear the losses now and cannot change that.

NATURE HAS ITS BAD DAYS

Lately there have been more and more discussions in forest issues about the weather. In speaking about the prospects of logging industry development, it must be noted that the weather conditions are rather changeable. It is true; in the last 5–7 years, the weather has brought so many unpleasant surprises that one can only think they are acts of God.

Loggers depend, in many respects, on weather conditions. As was mentioned before, the

country desperately needs forest roads of year-round functioning. Most wood is transported in winter by winter roads. Taking into consideration the importance of the winter harvesting season, the state even credited companies to set up interseasonal wood stocks: in autumn the state authorities used to give credits to the major companies so that they could purchase machinery, and organize reserves of petrol, oil, and lubricants. This was done to support lesmpromkhozes in efficient harvesting during winter (in other seasons, it is simply impossible to transport wood from most of the logging sites). Later on this assistance was stopped.

Loggers have had bad luck with the weather lately. Winters in Russia have ceased to be frosty. January can bring showers and storms. So, in December 2006, there was an ice drift on some of the rivers. This had never happened before.

As a result of such a natural anomaly, companies lost their chance to work efficiently during the most productive wood harvest season. It is possible to start using a winter road only in mid January, which means that only 2–2.5 months are left to transport wood. There is no use mentioning harvest volumes in this context.

Besides this, sudden changes in temperature also have a negative impact when the winter thaw is followed by severe frosts of – 40°C In these conditions, the electronics in modern machinery breaks down, hydraulic hose pipes split, and so on. These problems result in yearly reduction of logging.

ONE REFORM FOLLOWS ANOTHER...

A certain factor of instability in the logging industry is brought by the continuous reforming of the forest sector. It has been calculated that during the past 100 years Russian forestry has undergone reforming over 40 times. And now it is again the subject of another radical change. Russia has a new Forest Code which has been in force since January 1, 2007. This is an absolutely new document, fundamentally different from the former one.

Besides institutional reforms, the code imposes substantial costs on every logging company that enters into a long-term lease contract. In particular, it imposes costs on the adjustment of

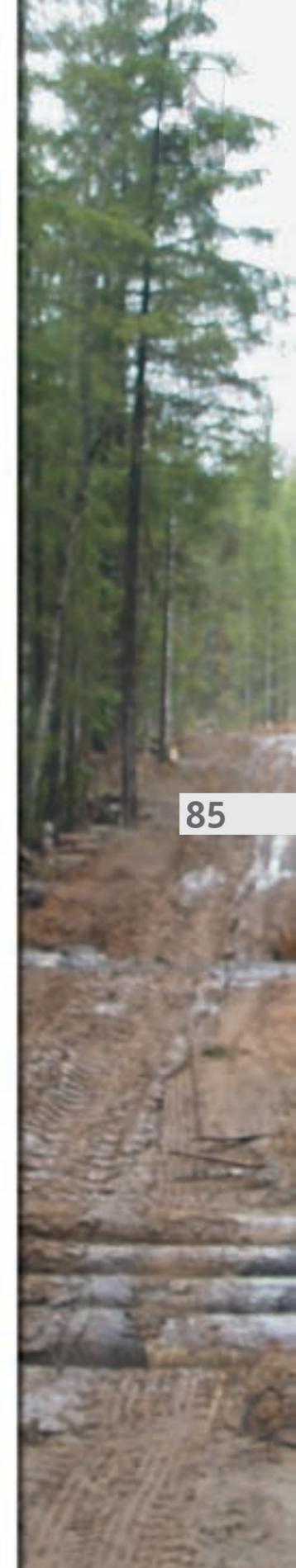




Table 4
Areas of Main Forest Forming Species in the Russian Federation

Main forest forming species	Area, mln ha
Softwood	
Pine	117.2
Spruce	76.7
Larch	264.0
Cedar	41.1
Hardwood	
Oak, long-stemmed	3.7
Oak, short-stemmed	3.2
Beech	0.8
Soft Hardwood	
Birch	98.8
Aspen	20.7

a lease contract to the requirements of the new Forest Code or on forest fire extinguishing. These are significant costs.

However, there is hope that this is the last reform of the country's forest legislation, and there will be no more radical changes in the future. The new Forest Code fits in especially well with the governmental concept of vertical power, and that is why its failure will be possible only after the collapse of the whole system of vertical power.

THERE IS A FUTURE

The picture of the logging industry of Russia that was outlined here looks, perhaps, not very optimistic. However, there are a few perspectives on it. They include the following:

- The Russian Federation has the world's richest standing wood stock. The main part of this stock is softwood, which is highly demanded by the market, and which ensures high quality production. Correct reforestation can make this resource practically inexhaustible.
- There is notably stable growth in domestic

demand for wooden production (wooden houses, wooden goods of various purposes, etc).

- Forest management in Russia is becoming more and more ecologically and socially responsible, especially by large forest users. This means one can say that the logging industry is a guarantor of social-political stability in many forest regions.

Presently there are plans to work out a state approach to the development of timber processing and logging. Thus, the government of the Russian Federation is currently completing elaboration of the Federal Target Program Development of Advanced Timber Processing Capacities and Exploitation of New Forest Areas through 2015. Basically, it implies joint participation of business, federal, and regional authorities in construction of new modern timber processing complexes, and development of processing and harvesting technologies. The plan, according to this program, is that by 2015, wood harvested will increase from 180 million cubic meters to 300 million cubic meters. Production of sawn wood, pulp, paper of various grades, and other timber products consequently will grow (see Table 3).

In general, one can say for sure that the Russian logging industry has a future. If reforming of the forest complex proceeds further in the current direction, and strictly follows the originally defined parameters (human factor excluded), then truly reliable and promising forest users who will be able to harvest wood, process it, and ensure the highest added cost in the territory of the Russian Federation will have secured access to the Russian forest.

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Table 5
Lumbering in the hugest forestry regions of Russia in 2006

Production	In 2006, mln m ³	With respect to 2005, %
General in Russia	187.	102.0
Irkutsk region	22.0	104.8
Krasnoyarsky krai	10.4	114.2
Arkhangelsk region	8.8	90.3
Volgogradsky region	8.7	94.0
Leningradsky region	8.5	97.6
Republic of Komi	7.0	100.0
Republic of Karelia	6.0	64.7
Kirovskaya region	5.7	91.1
Primorsky krai	2.4	102.4
Nizhegorodskaya region	1.5	100.0
Amurskaya region	1.2	105.8

RUSSIA IS ADDING VALUE TO WOOD

Despite the fact that Russia boasts nearly a quarter of global timber stock, it is far from among the top players in timber processing. Only twenty percent of its timber harvest is used for advanced processing. It is noteworthy that a lion's share of the processing industry's output is office paper, cardboard and packaging. These are regarded as low grade products in other countries. Russia still lacks EG coated paper and cardboard facilities, and clapboards, moldings, and millwork are a small part of its sawmilling output. So far, the Russian sawmilling industry is actually its primary one, and the current state of affairs is unlikely to change.



For many years, Russia's predecessor – the Soviet Union – was the leader in lumber production with an annual output approaching 80 mln cubic meters. At that time and also currently, the main production facilities were gangsaws – equipment abandoned in other countries more than thirty years ago. Today, the Russian sawmilling industry has the world's greatest resources of high quality sawlogs, yet it may not add maximum volume to sawmilling products due to its outdated processing techniques.

Currently, Russia is producing over 20 mln cubic meters of lumber annually. This figure has remained stable for the past ten years. The main portion of output is, in fact, semi-products produced by gangsaws and "finally processed" abroad to make more expensive products – clapboards and moldings for furniture.

Global paper consumption is steadily growing. The world has recognized the advantages of natural construction materials and natural components for furniture and house lining. According to UN forecasts, consumption of major forest products will increase 1.6–2 times by 2015. These forecasts let us hope that Russia, with its huge timber stock, will be able to hold a more significant niche on the global timber product market. Currently, the share of Russian suppliers on the European timber markets is about 10 percent.

GOVERNMENTAL POLICY

The government abstained from interfering with and controlling the timber industry for many years. The only action taken by the government during this time was the introduction of export duties for lumber during the global market boost in the late 90s, to withdraw sawmillers' excess profits. The duties imposed were regarded as 'temporary,' but persisted for over ten years. Russian sawmilling enterprises had no opportunities to update their facilities – sawmillers had to sustain a breakeven operation.

In 2005–2007, Russian authorities turned their eye to the development of the forest industry again, and in particular, to timber processing. The keynote of reforms is that forests should bring profit first to the government, and then, to all the rest. Putting things in order started with the support of enterprises which were ready to invest in production development.

Thus, in 2005, import duties on modern sawmilling equipment, which had no local prototypes, were for the most part abolished. The list covered nearly 750 items of machines and equipment. This step brought positive results – enterprises began procuring machines and updating existing techniques. Later, the RF government extended the validity period of this order several times, adding new items to the list.

The most significant step was a change in the customs and tariff policy made in 2007. Export duties for softwood lumber, and lumber from some hardwood timber species, were abolished as of 23 June. Since 1 July, export duties for roundwood have increased. These acts of government confirm the following idea: It's time to stop exporting raw materials, and begin selling finished products to other countries.

Export of roundwood will become economically unfeasible in a year and a half. Timber which used to be exported as roundwood (approx. 50 mln cubic meters) will be sent to domestic timber processing enterprises. However, existing facilities will not be able to process all raw timber. For this purpose, several dozen big timber processing plants will be built in the near future.

It is obvious that construction of new pulp & paper mills is unlikely to be finished in the 2–3 years to come. Moreover, the volume of investment – about one billion dollars – is unreal for the forest industry of Russia. From 2007–2009, sawmilling facilities will probably begin to be built on a large scale; the construction cost of such facilities is 30–50 times cheaper than PPM, and the payback period is several times shorter. The construction activity is likely to be more active in borderline regions of Russia – Siberia and the Republic of Karelia, Leningrad region – which have been the major sources of roundwood for foreign customers.

Nevertheless, we would like to send a warning to those potentially seeking to invest in the Russian forest industry. At the initial stage, the government intends to support construction of sawmilling plants which specialize in primary timber conversion without surfacing, gluing, etc. Construction costs of such enterprises are comparatively low, so many investors are expected to take that way. However, such enterprises will produce semi-products – unplanned timber which already dominates the Russian timber export structure and undergoes final processing to make finished products. The government

will probably increase customs duties for sawn semi-products to sky high rates in the coming 2–3 years, encouraging sawmillers to advance timber processing on the territory of the Russian Federation. In the meantime, value-added products, like furniture, moldings, and glued products, will be exported duty free.

THE FUTURE IS COMING TO RUSSIA

It is noteworthy, by the way, that several big sawmilling plants were initiated before the above mentioned governmental interference into customs and tariff policy, and these are being built and will be commissioned. Thus, new sawmilling facilities were put into operation in the Novgorod (100,000 m³), Leningrad (100,000 m³), and Vologda (60,000 m³) regions, and in Krasnoyarsk Krai (60,000 m³), and many other regions. Operating plants in Arkhangelsk, Nizhny Novgorod and other regions began updating equipment and changed to new advanced technologies.

Sawmilling in the Russian Federation engages over 25 thousand enterprises and entrepreneurs with an aggregate annual capacity of 34.6 mln m³. Small businesses with an output of up to 5,000 m³ produce about 50% of sawn timber products. At the same time, big enterprises with capacities from 30,000 to 100,000 m³ produce, in aggregate, only one fifth of all products of this type. It is interesting that export has been attracting a growing number of small lumber producing companies recently. Moreover, it is these enterprises which tend to export finished products – clapboards, moldings and construction materials. This is accounted for by the higher mobility of small businesses, which operate advanced sawmilling equipment and update it regularly.

Sawmilling is still characterized by the low technical levels of the equipment. Only 6% of sawn products are produced on band mills, 7% are on canters, and 8% are on circular sawmills. A good deal of timber is produced on gangsaws characterized by high energy consumption, low performance, inferior quality of the resulting products, and a large amount of waste. Nevertheless, the percentage of products made on up-to-date – equipment, is growing from year to year which is, to a great extent, due to increasing investments into the Russian timber industry.

For example, the volume of investments in 2006 was 41.7 bln rubles against 39.6 bln

rubles in 2005. In 2004, investment into the Russian timber industry could hardly reach 31.5 bln rubles. Moreover, several enterprises with joint Russian and foreign participation were commissioned.

During the previous decades, global sawmill engineering created dozens of new log conversion equipment types: through-feed, through-feed/stationary, and stationary types. Some of these machines are already used by Russian small joint sawmilling enterprises. In general, an overall trend in the disposal of the outdated gangsaw-based production facilities is being observed in sawmilling plants.

The Russian sawmilling industry needs a major refurbishment with computer-aided perspective technologies, equipment, and control systems – including implementation of optimization, simulation, and design programs in sawmilling production.

A detailed study of the activities of sawmilling enterprises conducted by scientists showed that the development of the sawmilling industry is hindered by a number of problems, including the following:

1. A low percentage of lumber production complying with foreign standards. Russian enterprises can sell on a narrow niche of the global lumber market. These limitations are imposed by the international market requirements concerning the quality, cross-sections, species, length, and grade which cannot be met by Russian enterprises. This accounts for a price reduction from \$5 up to \$25 per m³ of product.
2. A critical lack of lumber planing and gluing techniques.
3. A low lumber output. The volume of lumber output from raw materials is 48–59%; the maximum volume is reached only by enterprises with an annual capacity from 10 to 30 thousand m³ of lumber.
4. High production costs. The higher the capacity of an enterprise, the higher the average costs which signifies an imperfect organizational structure and management system. This entails low (sometimes negative) profitability. Such profitability leaves little hope for production development. It is the key obstacle retarding the modernization rate of Russian sawmilling facilities.

INVESTMENTS IN THE PRESENT AND THE FUTURE

Putting money into new manufactures, investors strive to provide them with the latest equipment. This is obvious: every ruble and every kopeck invested should bring pay back at maximum. By now, most regions have worked out governmental support and development programs in the forest industry, stating fundraising (both Russian and foreign) as the main objective, aimed at creating modern timber processing enterprises on their territory. The most outstanding success is demonstrated by border regions – the Republic of Karelia, and the Khabarovsk and Altai regions, and other Federation subjects. The most effective program seems to have been implemented in the Krasnoyarsk region, which is a leader in timber harvest volume.

Thus, according to Andrey Gnezdilov, Deputy Governor of the Krasnoyarsk region, the local program bearing the title Development of Timber Processing, Wood-based Products Manufacture, and Paper Production covered ten investment projects, with the aggregate funding approaching half a billion dollars, which are to be implemented by 2009. Nonetheless, the region has a long-term program (up to 2015) providing \$3 billion of investments into forest related industries. The authorities may also offer an investment portfolio for potential investors.

A number of projects have already been completed. For instance, a new MDF plant with a rated capacity of up to 70,000 m³ per year was commissioned in the city of Lesosibirsk in March 2007. The plant has no analogues in the region; the backlog filled long before the commissioning date demonstrated high demand for MDF on the domestic market. The sum of the investments was \$25 million, and the authorities of the Krasnoyarsk region compensate for bank credit rates. This is considerable support for the newly built plant. Similar assistance is received by entrepreneurs in other regions.

2007 will see the completion of the Yenisey Plywood Plant construction in Sosnovoborsk. The plant is expected to create 800 new jobs. The majority of the technological equipment was delivered in mid September from the USA for immediate installation. The plywood plant is being built on the territory of a former Krasnoyarsk plant of trailer machines, and is

the biggest timber processing investment project in the region for the time being. The rated capacity of the plant will be 600,000 m³ per year, including 350,000 m³ of large size plywood and 100,000 m³ of commercial veneer. The project is being developed at the expense of Midway United CJSC, a joint Russian-USA company. The total volume of the investment is \$150 million.

The construction of such expensive facilities is quite an exception to the rule. An average sum for investment into timber processing is about €10–20 million, which is equivalent to the construction of a large perspective sawmilling plant.

Another district of the Krasnoyarsk region – Boguchansk – will host another timber processing plant in 2008. The construction will be entrusted with Swedish Varyag Resources. This company bought a suspended construction project which was launched as early as 2000. The shops are now repaired and refurbished. The investments will total about \$17 million. The expected capacity of the plant at the initial stage is 100,000 m³ per year, and the rated capacity is 170,000 m³.

Non-forest Russian regions have developed their timber processing too. So, OJSC Yugra-Plit, in the city of Sovetsky, in the Khanty-Mansiysk district, is expected to output its first products in 2009. The main product item of the new facility will be particle boards. The annual capacity will be approximately 150,000 m³ of boards, and the investments have totaled €25 million. This enterprise is largely supported by local authorities, who searched for investors and helped solve some of the problems which arose during the construction.

The Khanty-Mansiysk district has already built a plant for producing frame houses from LVL. LVL-Stroiproekt is going to manufacture about 200 low-rise frame-and-panel houses and cottages from glued timber. The equipment available ensures the output of houses with an area from 45–500 m².

The Vologda region is a traditional timber processing center. The local authorities are not only expressing their desire to develop advanced processing techniques, but also are making every effort to assist the enterprises by providing them with cutting areas and allocating lands for

construction of up-to-date processing facilities. As a result, the region has become the leader in fuel pellets production, the export of roundwood is gradually decreasing, and the percentage of timber processed on the territory of the region is growing. Three big timber processing projects are going to be implemented in the Vologda region within the framework of the program entitled Development of the Forest Sector. The location of the new facilities will be chosen with consideration to landscape design, and to the necessity of comfortable areas for the development of local forest businesses.

These mega-projects are planned to be realized in the city of Veliky Ustug, which will host an OSB plant; in the city of Sokol, whose PPMs will undergo refurbishment and restructuring for the purpose of the “Russian Paper Manufacture” project which is aimed at the production of light coated paper. The Cherepovets district intends to build an integrated timber enterprise called “Suda,” its object being to create new technological facilities for processing timber and meeting the domestic demand for value-added timber products. The investments will be 53 billion rubles. Apart from this, existing processing facilities are expected to be significantly updated.

Special advanced timber processing projects have been launched in the Amur region. Here, woodworking is recognized as a priority area: corresponding amendments were introduced into the local law “On Investment Activity” in 2007. Enterprises focusing on timber processing will get a 4% discount on income tax, a property tax relief, and guarantees of the local budget. By acting in this way, the authorities wish to see that 70% of harvested timber will be processed locally by 2020. A number of projects have already been disclosed. These belong to Udacha-Les Company based in the Blagoveschensk and Region-Amur Company in Belogorsk. The Turanles Company shall produce its first lot of lumber in December 2007. Turanles intends to produce unplanned air-dry lumber first; in two years it will launch kiln drying and manufacture moldings, flooring and parquet boards, and clapboards (Russian and European standards). On completion of the second construction stage, the enterprise’s product range will add glued products – timber for windows and doors, and a laminated cant for low-rise houses.

Similar development plans are demonstrated by its member, the Khabarovsk region. It is

going to process up to 50% of all harvested timber by 2010. The first robin will be chipboard facilities in the settlement of Oktyabrsky, in the Vanino district, and a timber house plant, Khabarovsk. The former is being designed and built by Arkaim CJSC with the participation of Swedish and German specialists. The project is one of the “Priority ten” oriented at timber processing advancement. The plant’s planned annual output is approximately 185,000 m³ of lumber, and 140,000 m³ of chipboards.

The Khabarovsk region is open to foreign investors. Thus, Malaysia and China intend to erect two processing plants in the settlement of Khor, an MDF/THDF plant and a chemico-thermomechanical pulp mill. Rimbunan Hijau CJSC (Malaysia) is working on a 150,000 m³ MDF plant project. The site has already been allocated, and design works are underway. As for the chemico-thermomechanical pulp project funded by the Chinese Metallurgical Scientific and Industrial Corporation, it still has many outstanding issues. According to the regional authorities, these issues include undue preparation and submission of design documents, and a failure to observe Russian environmental regulations. Nevertheless, these problems are expected to be overcome in the near future.

BETTER LATE THAN NEVER

The Arkhangelsk region, the leading Russian timber processor, is finally joining the modernization process. The region accounts for about one third of paper products and one tenth of lumber. It should be said, however, that its product range is somewhat limited to semi-products: unplanned lumber, pulp, and the lowest grades of paper.

Over the previous six years, only two big Arkhangelsk-based producers, Onezhsky LDK and Lesozavod-25, have upgraded their sawmilling techniques. Nonetheless, the future of the woodworking industry is regarded as being very promising. Thus, scientists from the NIPIEIsrom research institute are offering to create an integrated forest industrial campus in Karpogory. The offered industrial campus would include a PPM, and a woodworking complex comprising a sawmill, a house building company, and a planed lumber and pellet plant. They are convinced that such a campus will be able to procure enough raw materials. Moreover, it will get access to international markets through the Belkomur railway, which is

currently being built. The volume of investment is estimated at \$1–2 billion. If these plans come true, Karpogory will provide a 500,000 ton PPM producing not only pulp and cheap paper types, but also high-quality coated and uncoated paper. The rated annual capacity of the sawmill is 400,000 m³ of processed sawlogs, and that of the processing plant is 160,000 m³ (construction lumber for interiors, internal lining, heat treated and impregnated, for bolsters and industrial packing, wooden furniture parts, glued laminated lumber, and flooring). A construction company will be capable of building timber houses with an aggregate area of up to 1000,000 m².

The southern part of the region considers smaller projects. Take for example, the sawmilling plants of IlimSeverDrev CJSC, in Kotlas City, which has an annual output of 400,000 m³ of lumber (including dried planed lumber) and glued products. The city of Velsk has offered to build facilities for producing timber house packages. Its capacity would be equivalent to that of a similar plant in Karpogory. The Primorye capital is going to commission a timber house plant with a capacity of 200,000 m², and a furniture factory with a 500 million ruble turnover (furniture from high-quality wood-based panels and solid wood). The Plesetsk district is planning a 200,000 m³ OSB plant in the Nyandom district, comprised of plywood facilities within an existing plywood plant and a chipboard plant. The rated capacity of the former is 100,000 m³ per year. Apart from ordinary plywood, it will produce laminated products.

The prospective forest industry development strategy of the Arkhangelsk region provides for seven wood pellet shops, with aggregate capacity of 35,000 tons, and five greenhouse nurseries for growing ball seedlings of forest species with a total area of 250,000 m².

The region is already building several pellet plants. The first such facility was put into operation in May, and another glued laminated timber plant is at the design stage in Arkhangelsk. It is noteworthy, that all said plants are expected to become export-oriented.

GROWTH WILL STIMULATE TIMBER HOUSING

Russia has lately been exhibiting the conviction that the bright future of its timber processing

will ensure timber house construction. Indeed, an increasing number of low-rise timber cottages will entail the growth of the market of wood-based products used for interior finishing works: clapboards, panels, plywood, etc., correspondingly. Heating systems of such houses may use biofuel.

If the timber house construction program is implemented, the prospects of the timber processing industry may be expected to be quite promising. The thing is, housing shortage has been the main problem in Russia for the last 50 years. For many years, this problem was solved by the building of multiple panel apartment blocks. Nowadays, it has become apparent that panel towers cannot meet the needs for housing.

In this respect, timber house construction has a number of advantages. First, the cost of one square meter of living area in a timber frame house, built with the help of advanced foreign technologies, is about \$400–450, which is much less than the construction cost of concrete buildings. The growth of timber housing construction volumes may significantly reduce the costs of such houses.

Second, low-rise house on-site assembly takes just several days. Russian enterprises are capable of producing up to 200 million m², provided proper development of the timber processing industry is reached.

And finally, development of timber housing will animate the whole range of forest related industries. According to rough assessments, provided there is a stable demand, the manufacturing of timber house packages may bring up to \$10–15 billion to Russian producers. Valery Roshchupkin, the head of the Federal Forestry Agency, believes "timber house construction is an excellent opportunity. Taking into account our market capacity, we may encourage our forest industry and meet the nation's social needs. Moreover, development of the forest industry will have a synergic effect which will cover the national economy. A boom in construction will serve as an impetus for advancements in the building materials industry, telecommunication, road construction, etc."

It is not incidental that timber house construction is often included into agendas

of meetings discussing implementation of the national project "Affordable and Comfortable Housing for Russian Citizens." However, despite the huge potential, the Russian timber housing market is in its fetal stage. Demand and supply are extremely weak, except in small segments of top class timber cottages and small wood-based panel houses for guards.

Serial industrial manufacture of affordable and comfortable timber houses in Russia is underdeveloped. In addition, local enterprises are unable to produce the required amounts of some products necessary for modern timber houses (e.g., OSB and MDF boards).

This challenge, however, is not as serious as it may seem. Global experience shows that, unlike pulp and paper, a modern plant oriented at timber house packages production will be significantly cheaper to build. Russian timber producers can easily bear such expenses. Moreover, the biggest companies already have their own processing facilities. New enterprises oriented at timber housing may encourage the output of required materials by the domestic industry.

ADVANCED TECHNOLOGIES WILL FORM THE FUTURE

The main trend observed in timber processing is re-orienting at production of higher quality, and more demanding, products. The driving force of the growth is, first of all, the growing profits of population industries and the revival

of the furniture and construction industries which, in their turn, stimulate the demand for related wood-based products.

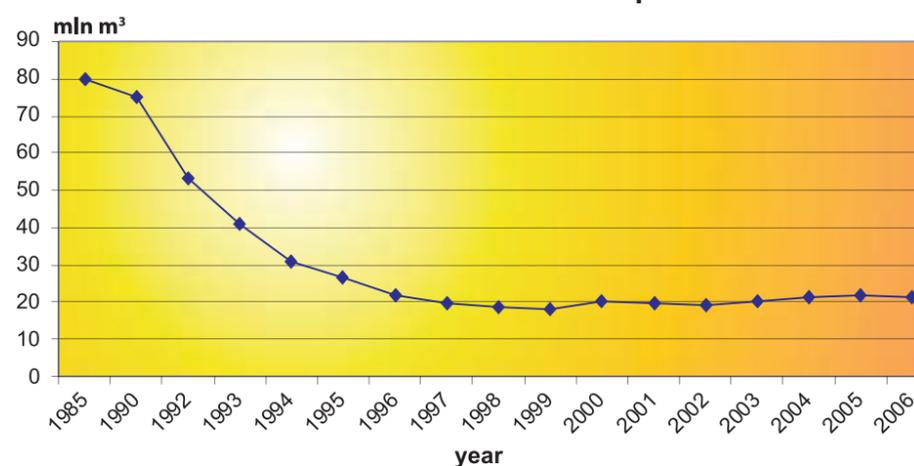
It should be recognized that timber processing facilities are updated more slowly than we would like to expect. There is only one reason for this; the Russian sawmilling industry's low responsiveness. The fact is, that during the Soviet era, the huge forest industrial sector (except paper production) relied on gangsaw-based sawmilling. Unfortunately, it is difficult to throw away customs from the past. Nevertheless, the government's stepwise policy supporting sawmillers, and the desire of the latter to make more profit, bring changes in approaches to production management.

One could hardly imagine five years ago, that bioenergy technologies would be on the upswing. Today, this is a reality of life. We could not even think about MDF or OSB production in Russia two or three years ago. Nowadays, these plants are operating quite profitably.

We should admit that the sawmilling industry is still not very responsive, but this is changing for the better. Sawmilling enterprises have initiated an irrevocable process of modernization, technological updating, and development of new products, and this process is expected to be speeding up. As a consequence, apart from "forest semi-products," Russia will occupy its niche in the market of value added timber products in the years to come.

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Lumber production in the Russian Federation for the period from 1985 to 2006



THE RUSSIAN OSB MARKET

Compared to other board products, oriented strand boards appeared on the Russian market relatively recently. The first trial deliveries of OSB from Europe to Russia began at the turn of the 20th century.



CONSUMER MARKET

OSB positions on the Russian market become stronger each day. The major OSB suppliers are Egger (Germany), Glunc (Germany), Kronpol (Poland) and Kronoshpan (Bulgaria). Polish and German producers have taken an active marketing position, and their goods are most widely present. Kronoshpan's new production facility in the Czech Republic is also worth mentioning, which started to actively promote its products on the Russian market last year. In 2007, Kronoshpan Concern plans to start OSB production at its new plant Bolderaya, in Latvia. The marketing policy of the factory will also be oriented mainly towards the Russian market.

In Eastern Russia, OSB is supplied mainly from the USA, Canada and Japan, but supply volumes there are still low.

The OSB market is developing most dynamically in the European part of Russia. According to state customs data, Saint-Petersburg, where imports of oriented strand boards in 2006 amounted to 89,000 m³, is the leader of OSB imports. Kaliningrad, Moscow, Perm and others follow the lead.

The leader of declared imports in 2005 was the TechnoNikol Company, which operates in

all regions of Russia and in the Ukraine. The company produces and sells a wide range of roofing and accompanying building materials.

Good durability characteristics of the materials are the reason for major OSB users being companies with construction profiles (see table). The currently forming market of construction products for personal use – popular in European DIY (Do It Yourself) store chains – is considered to be very lucrative for OSB.

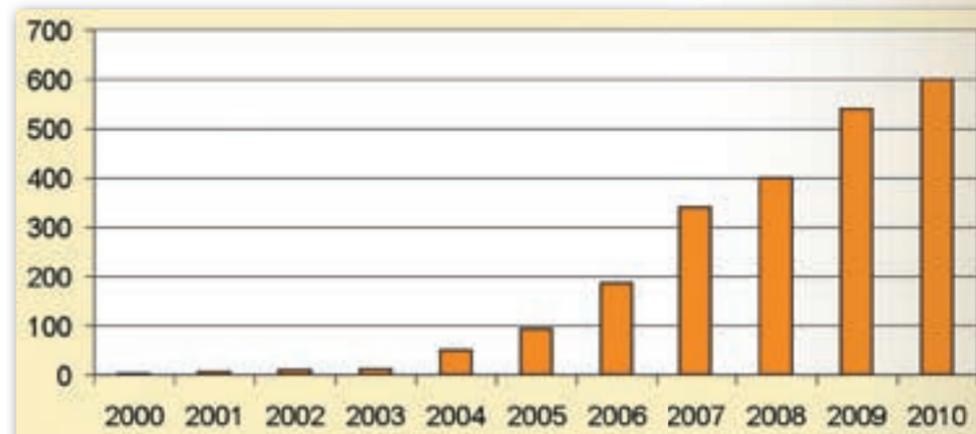
The price of 1 m³ of imported boards today varies from 380 to 450 euro. The cost of OSB depends on many factors: the producer, product class, board format, thickness, and delivery volume. Polished OSB costs on average 5% more – laminated boards for boarding cost twice as much as the regular ones. Most demanded today are regular boards of OSB/3 class without additional processing. OSB, laminated with phenolic film, as well as boards for larger operational loadings (class OSB/4), are mainly supplied only in case of a placed order. During interviews of members of the Association of Wooden Housebuilding by the Lesprominform Journal, most companies indicated that a complete switch to OSB is held back by high prices. Demand for the boards would substantially rise if purchasing prices dropped by 15–20%.

Major groups of OSB users

OSB-Materials				
Wooden house building	Isolating sandwich-panels	Renovation and decoration	Concrete Boarding	Interior Works
Construction Companies	Construction and production companies	Trading Companies	Construction Companies	Construction and trading companies

Graph2

Imported OSB consumption dynamics in Russia, thousand m³/ gram



What is interesting is that the Russian consumer does not pay much attention to producers' brand names. Only the country of production is distinguished (Germany, Poland, Bulgaria, etc.). One can see the same dealer selling products of, for example, Egger, Glunc and Kronoshpan. Though, large house building companies which have been working with OSB for several years have certain preferences to the boards' producers, as products from different producers always vary.

who use OSB are 9, 12 and 15. The former two are used for the internal part of the board and interior furnishing, the latter – for the exterior part of the board. The same interview revealed the most attractive OSB characteristics for house builders and furnishers:

- Moisture resistance
- Durability
- Price
- Ease and convenience in use

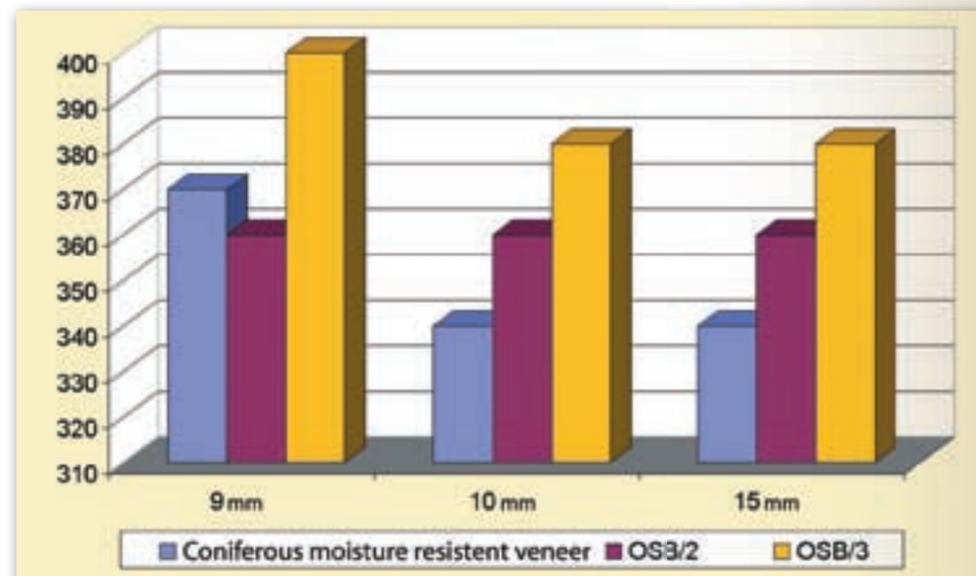
Today, most OSB consumption in Russia is concentrated in the housing construction, renovation and decoration sectors, which divide the market of OSB consumption almost equally. According to an interview in the Lesprominform Journal, the most popular board thicknesses among house builders

RUSSIAN PRODUCTION

OSB is capturing the Russian market more and more. In large cities, most companies which sell construction materials offer OSB. However,

Graph 1

OSB and plywood prices in Russia, euro/m³



despite the fact that organizing OSB production would allow for the elimination of acute problems in processing unbusinesslike and low-grade wood, Russia has yet to establish any of its own OSB production facilities. According to some experts, one of the reasons for this phenomenon is a lack of specialists who at least know the subject of OSB well, not to mention the technology. Many firms complain that they simply cannot find a sufficiently competent project manager.

The OSB which is sold in Russia is mostly imported from Europe. According to different estimations, consumption volume of the boards by the Russian market will come to 400–450,000 m³ per year by 2008, if an internal producer does not emerge. Most probably however, the first OSB producer will appear in the near future in Russia. For today, many statements have been made about plans to build an OSB factory.

Among those are:

- DOK "Amurskiy" plans to organize production in the Khabarovsk region. Estimated productivity of the factory is up to 100,000 m³

per year. The project price has not been specified.

- The Polytop Company plans to build an OSB plant in Komi Republic. The projected plant capacity is 70,000 m³ per year, while the investment volume is 700 million euro. Construction is planned to begin in 2007.
- DOK Kalevala in the Prionezhskiy region of Karelia plans to start building an OSB production plant with a production capacity of 320,000 m³. Construction is planned to begin in the current year, with a project cost of 150 million euro.
- The Karelia DSP Company also plans to build an OSB plant in Kaleria Republic. Yearly production of the new plant will be 200,000 m³ of finished goods. The cost of equipment is about 90 million dollars.
- Belrusneftegaz Concern has made a decision to build a plant for the manufacturing of wood-shaving plates and OSB. The projected capacity of the OSB lines is 200,000 m³ per

year, with a project cost of about 100 million dollars.

- Two more companies – DOK Sokolskiy and the Bologdalesprom Corporation – are determined to organize their own production of OSB in the Vologodskaya region.
- In the city of Novoshahtinsk in the Rostov region, an OSB production factory is planned to be built. The project initiator is the RNR Company, which successfully builds wooden houses using Canadian technology. The announced OSB plant capacity is 300–350,000 m³ per year. Total planned investments exceed 150 million dollars.
- In the Archangelsk region, an OSB production plant with a production capacity of 110,000 m³ per year is planned on the premises of Volshskiy Pulp Factory № 5 (Voloshka settlement).
- Kronostar Concern plans to organize OSB production on its premises in the Vetluzhskiy settlement (Kostroma region). Projected capacity on the basis of press in continuous action will be 400,000 m³ per year. Construction was planned to begin in 2007; however, according to the company's management, the project's start is postponed until 2008.
- The renowned deep wood processing project of the Egger Drevprodukt Company in the Ivanovo region has also assumed building OSB production facilities.
- Also, OSB production projects are being developed in Khanty Mansiysk Autonomous Okrug, Tomsk, the Leningradskiy region, in

Sakhalin, and in the Moscow region; however, we did not find confirmed information about the course of their realization.

As indicated above, it has been realized by many today that the first Russian OSB producer who enters the market will have incontestable competing advantages. The only question is who will become the first and make history?

Summarizing the above written, we highlight the following:

1. Production and consumption of OSB have good development prospects in the Russian market. The material is already widely used and continues to establish itself in new market niches.
2. OSB has strong competing advantages in cost price as compared to other wooden boards, including plywood.
3. The consumption volume growth of OSB in the Russian market by 2008 is estimated at 400–450,000 m³ per year.
4. Emerging OSB plants will allow for the elimination of acute problems in the processing of substandard and low-grade wood. Organizing its own OSB production stimulates development of the Russian timber sector as well as development of deep wood processing in the country.
5. The emergence of OSB factories in Russia will promote wooden house building, and as a result, will assist the in the housing problem, especially in big cities.

Mikhail YASHIN, Elena ROSCHINA





RAGPC — IN THE NAME OF A COMMON GOAL

The Russian Association of Glulam Producers and Consumers (RAGPC) non-profit organization was created in 2005 as a result of the unification of the Interregional Association of Glulam Producers and the Association of Glulam Producers and Consumers. The Association links large producers, suppliers of raw materials and equipment for glulam production, construction and assembly, scientific research, design and development, and informational and consulting organizations.

President of the Association is the Chief Architect of Moscow, Chairman of Moskomarchitecture, and People's National Architect of the Russian Federation – Aleksandr Viktorovich Kuzmin.

Main Goals of the Association:

- Organization of interaction and coordination of members' efforts, creation and perfection of the common informational space on questions which constitute a common interest.
- Representation and protection of legal interests of the Association in state and public bodies.
- Assistance of every kind for glulam market development.
- Realization of events for protection of the internal market, assistance to the Association's members in entering the external market.
- Assistance in the increase of profitability of production and utilization of glulam.
- Assistance in quality improvement of design, production and utilization of glulam, and carrying out of measures for the prevention of products to appear to be of poor quality in the market, whereby the idea of wide-spread glulam use in architecture and construction may be discredited.
- Development of normative-technical documents for the production and utilization of glulam in architecture and construction, taking into consideration global experience.
- Formation of an image of glued timbering in architecture-construction circles.
- Creation and use of a database for the utilization of glulam in the interest of members of the Association.
- Provisions for methodological and consulting assistance.
- Creation of the Certification and Design and the Technology Center of the Association, organization of certified trials, introduction of a quality certificate of the Association.

- Contact expansion with domestic and foreign associations.
- Organization of advertising activities, participation in exhibitions, publications in the mass media, assistance to the members of the Association in participation in these types of activities.
- Assistance for research in the field of glulam production and utilization.
- Participation in professional thematic conferences and symposiums.

The Association does not perform and does not intend to perform the coordination of business activities of its members, nor take any other actions which limit free competition in the market of goods produced by the members.

The Association provides:

1. Representation and protection of legal interests of the Association's members in state and public bodies, the possibility to approach state bodies with different questions.
2. Promotion by all means of goods and services produced by the members. Increasing the rate of consumption of glulam in Russia to the level of developed states.
3. Assistance in establishing contacts of glulam producers with the leading equipment producers and suppliers of glue systems, protective coatings, scientific research and development organizations, and foreign partners and associations.
4. Participation in the development and improvement of national and corporate normative-technical documents, in particular in the field of raw materials, production, utilization of glulam in construction projects, and fire safety provisions of structures and buildings.
5. Participation in research and development and trial-design works in the area of production and utilization of glulam, immediate use of obtained developments.
6. Reduction of risks at stages of design, production, construction and exploitation; improvement of competitiveness as a result of adopting and applying national and corporate normative-technical bases, utilization of advanced scientific developments.

7. Ability to use the experience of leading domestic glulam producers in order to increase production volume, products' quality improvement and cost reduction.

8. Ability to expand and optimize production as a result of attracting specialists from the leading global firms of equipment suppliers.

9. Assistance on questions of production certification.

10. Efforts consolidation in the area of development of the internal and external markets, use of marketing research results.

11. Assistance in organizing participation in exhibitions, conferences, symposiums, and seminars within the country and abroad, ability to use the Association's expositions at exhibitions.

12. Assistance in the organization of advertising and exhibit activities.

The most important results of the RAGPC were the Russian Government's having adopted a resolution on the cancellation of export customs duties (from 10 to 0%) on glulam in 2004. The Association's activities in promoting glulam output have led to a substantial widening of glulam use in buildings and installations of various purposes. Among buildings built during the last years are Europe's biggest skating center in Krylatskoe, a gymnasium in Schelkovo, aqua parks in Mytishi and Saint-Petersburg, the Central Exhibition Hall of Manezh, a pedestrian bridge across the Moscow Circle Road, fertilizer and chemical reagent warehouses in Saint-Petersburg and Moscow, and many others.

Important problems that RAGPC is solving today are the creation and widening of participants' informational fields, creating the Certification and Design and technology Center of the Association, organization of certification trials, introduction of the Association's quality certificate, creation of a design and technology bureau in the framework of the Association, research in the field of new technological solutions which provide reduction of glue and wood consumption, as well as reduce the duration for drying sawn-timber.

THE PAST, THE PRESENT AND THE FUTURE OF GLULAM IN RUSSIA

Glued laminated timber is one of, if not the most modern universal construction materials. For Russia, where wood stock is especially great and state policy is directed towards wood processing within the country, the development of low-storey housing construction, improving the quality of life, and the enhancement of cities and settlements, this material has become very promising both from production and consumption points of view.

Mass production of glulam in Russia began when a glued timber factory in Volokamsk city became operational in 1973. (However, research and periodic use of glulam was carried out as early as 1942).

During the next 3–4 years, 20 plants started working in the country; they used imported equipment and their total productivity was about 100,000 m³ of glulam per year. All plants were located in the European part of the USSR.

Glued timber was widely used in the construction of buildings for agricultural use, warehouses for chemical fertilizers, and public buildings. More than 60 warehouses with spans of 45 m are still exploited in Berezhnyaki of the Perm region, some of which date back to 1960. Average life-spans of steel constructions there do not exceed 10 years. The combination of a resistance to chemicals and high durability with low weight of wood provides glulam with great effectiveness

in this area. In the 1980s many high span sport buildings were built using the product, including a skating rink in Archangelsk with a span of 60 m, and a skating rink in Tver with a span of 50 m. Many different riding-halls and halls with spans of 50m were also erected in Belarus.

A normative base, designer schools and scientific base for glulam had been constructed. During Perestroika however, almost everything was lost. By 1996 the industry almost ceased to exist. Out of all the plants, only the Volkokamskyi factory survived. Of the project and scientific divisions – only the timbering laboratory survived at the Central Institute for Timbering Research and Development of Kucherenko – CITRDK, though it diminished in size down to 28 employees.

During the last several years, positive changes in the industry have begun to show. Volkokamskyi and Smolensk factories are steadily developing after reconstruction. A factory in Korolev has augmented its capacities, and equipment installation in new enterprises in Novosibirsk and the Monza settlement of the Vologda region are nearing completion. Several small plants are working in the Kresty settlement of the Podolsk region, Tambov, Vologva and in Dmitrov. A factory in Nizhnyi Novgorod has reached its planned production capacity. Mostly, the factories are equipped with German machinery. In the 1980s, output of glulam factories was meant for agricultural purposes; however, buildings such as a market in Archangelsk, a market in Volokamsk (Figure 1), and a skating rink in Tver were built alongside unique public buildings.

With CITRDK's participation, about 200 various and unique structures with glulam frames and

new joints have been built. Among them: the 70m high warehouse dome of anti-glaze reagents in Moscow (crossings of the Moscow Circle Highway and Leningrad Highway), an anti-glaze reagents warehouse in N Kosino with a span of 60 m (figure 2.), a warehouse of potassium salts in St-Petersburg, a sport palace in Schelkovo, an aqua park in Abzakovo (Chelyabinsk region), among others.

The use of glulam in bridge construction is considered effective. Wooden glued bridges and crossings play a significant role in the modern construction of Podmoskovye.

Besides unique structures which are assembled at construction sites, relatively small bridges that were completely factory-made have become popular.

As a result of the combined research efforts of CITRDK and VTT (Technical Research Center of Finland) it has become possible to create compositional structures – wood-concrete beams which have been successfully applied for bridges and coverings with spans of 18 m.

Modern construction utilizes all the main structure types by using glued wood: arches, beams, frames, farms, etc. Of the arch constructions, three-hinged arches covering a skating rink in Archangelsk with a span of 63 m should be noted; they were developed in the Mezencev CNIIEP (Central Research Institute) and have been successfully exploited since 1980. A large number of sport structures with 60m-span arches were built in Belarus as a part of the Gomel Civil Project. In Moscow for the first time prefabricated two-hinged 45m-span arches with a solid joint of the CNIISK system were applied for the covering of the Lokomotiv skating rink in 1983.

Collapsible continuous beams with lengths up to 100 m of solid joints on sloping glued ties were first used in Podmoskovye for the public center Lipki, built in 1983.

Three-hinged built-up frames from rectilinear elements with firm eave junctions on sloping glued rods were first used in sport structures with spans of up to 24 m in the Vologda region.

During the last five years, constructions utilizing structures of various forms and joints of the CNIISK system have been developing. In this way, a unique aqua park building was built in Abzakovo in the Chelyabinsk region, where

collapsible beams with spans of 40 m were utilized. In 2002 unique structures were built in the form of two-hinged 60m span arches with four firm joints for an amusement center in Kurovo (Podmoskovye). Also, the structure of a potassium salts warehouse in the Saint-Petersburg Port is regarded unique; it was built as the Lenpromstroy LenmorNIIproject, where and CNIISK collapsible three-hinge bent-glued frames with a span of 63m and a height of 45m were used. The structures were made in Korolev city, transported by railroad and were assembled using firm joints at a building yard.

Earlier, in 1988, similar frames with a span of 60m and a height of 21 m were utilized for the anti-glaze reagents warehouse in Moscow. New structures of all major joints by CNIISK were utilized in the two constructions. Mosproject designed a speed skating center in Krylatskoe with a span of more than 100 m which utilized glulam in covering; its construction was finished in 2004. In 2005 reconstruction works of the Central Exposition Hall of Manezh were finished; Betankur farms large-span glulam replicating was utilized there but done so with modern technology.

In 2001 Russia's biggest ribbed dome was submitted for exploitation for the anti-glaze reagents warehouse in Moscow with a 70m diameter.

A number of tennis-court projects, sport centers, and sport riding-halls with original structures are in the design phase (figure 4.). In particular, vaulted roof covering with glulam was adopted for a skating rink reconstruction project in Medeo (Kazakhstan).

Figure 1
A Market in Volokamsk

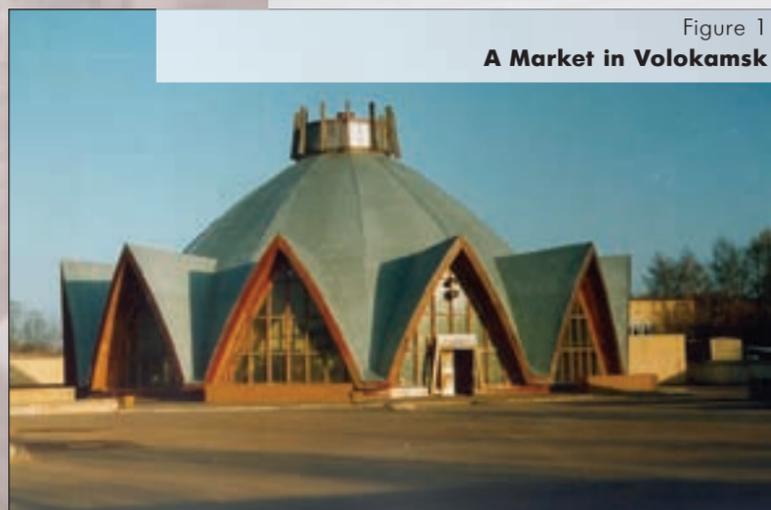


Figure 2
Warehouse of anti-glaze reagents in Moscow



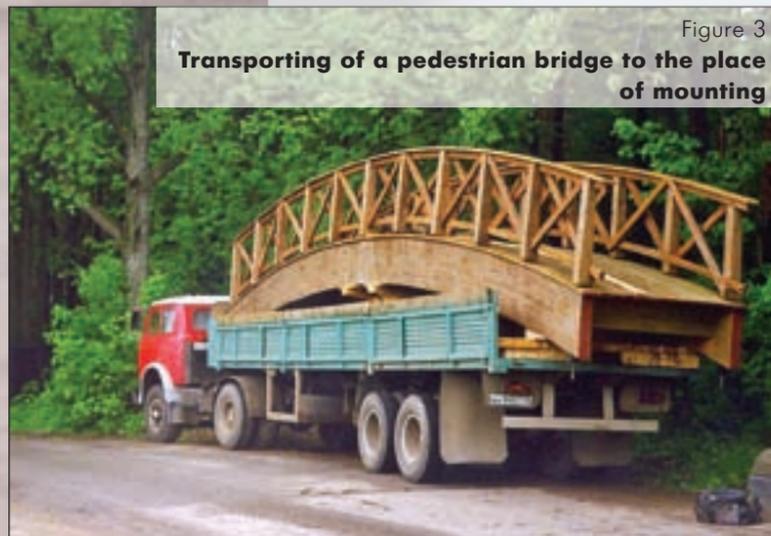


Figure 3

Transporting of a pedestrian bridge to the place of mounting

Also, glulam has been used successfully today in attic construction, reconstruction of old buildings, and in structures with a chemically-active environment, i. e. terminals for potassium salt or chemical fertilizers and others.

MAJOR PROBLEMS OF THE INDUSTRY

Today, the volume of yearly glulam production exceeds 4.5 mln m³. Russia still produces less than 2% of this volume, despite the fact that production during the past 10 years increased more than tenfold. However, taking into consideration that this growth started almost at a zero production level, today's production and consumption level of glulam in Russia cannot be considered satisfactory.

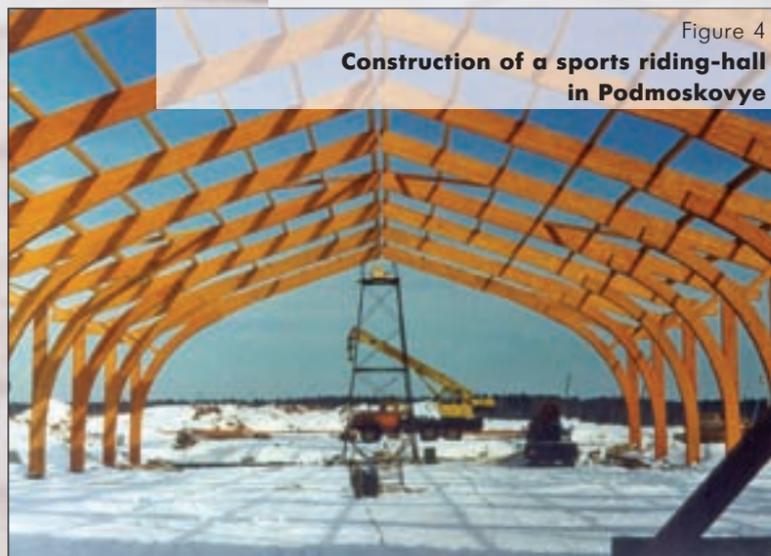


Figure 4

Construction of a sports riding-hall in Podmoskovye

Widespread use of glulam in Russia is constrained by a number of objective and subjective reasons.

Wood being perceived as a construction material of the past is very stable in architect-construction circles. The perception of glued wood as a modern construction material with stable characteristics has still not eliminated the mentality of 'metal and reinforced concrete thinking.' This reason is aggravated by the underdevelopment of project bases. Until recently, one of the laboratories in Kurchenko CNIISK has been carrying out the design of large-span structures with glulam. One design bureau still exists in the Belarus Republic. The training of construction university specialists in construction universities in the area of glulam utilization does not satisfy the industry's demand. Modern programming for designing large-span structures for specifics in Russian production is almost completely absent. All this leads to the fact that buildings which could be built by utilizing glued wood are being built utilizing metal or wood-concrete structures.

Existing normative documents in Russia on the production and utilization of glulam have become extremely outdated. Fire safety standards, norms and rules absolutely do not match actual glulam characteristics and global experience.

Although almost no glulam was produced in Russia at the end of the 19th century, the modern production base is represented by significantly worn-out equipment. Development of production is held back by an inadequate consumption rate, the existence of customs duties for quality foreign benches and lines, and low investment attractiveness in the situation of uncertain development of sales markets. Operational factories in Korolev, Volokamsk, Novosibirsk, Smolensk, Nizhnyi Novgorod, Vologda, Saint-Petersburg and others places have production capacities of no more than 12,000–15,000 m³ each per year. Larger factories in the Far-East and Siberia built with 100% foreign capital are oriented exclusively for exports to Japan. Because of the low wholesale production, market underdevelopment, and equipment deficiency, Russian glulam has a 15–20% higher cost than that in Europe, which makes competitiveness in this market very problematic, even when taking into consideration the cancellation of export duties in 2004.

In the wood extracting regions, wood processing factories have low prospects of production of

high quality glulam because of high equipment costs, underdevelopment of sales markets and absence of a qualified workforce.

Lack of utilization of standard glulam in mass construction in Russia has cut down the sales market. This factor also holds back the development of important intermediate groups between producers and consumers – trade companies. Trade companies make producers independent from individual orders and the discontinuity of production associated with them.

Wood capacities for providing seismic resistance in the radio-transparent construction of surfaces are almost completely not used in Russia.

The process of production and utilization (transporting, assembly, exploitation) of glulam has a number of specific characteristics associated with specifics of wood as a material which, in certain conditions, is more subject to influences of the environment than metal and concrete. These specifics are known, and there are methods of dealing with them; however, these methods do not always fit modern construction technology and scare off constructors.

The structurally problematic field of glued timbering can be represented by three main interconnected blocks of problems: scientific methodology, production, and information.

The following should be linked to the first and most important block:

- Deficit of fundamental implicational research on the border of forestry, chemistry and construction sciences.
- Lack of integrated marketing methods of the demand market and monitoring of the field of utilization of structures under consideration.
- Inadequate existing classification of state and prospects of structure utilization.
- State of methodological provision of the controlled structure trials, set and quality control of glues, system of quality assurance and structure certification, certification of specialists and other workers.
- Absence of complexity and efficiency in the normative provision of production of the structures.
- Imperfection of criteria for the basis of structure production schemes.
- Deficit of software of development of glued timbering.

The Second block is formed by production problems, which are by and large a result of the problems of the first block:

- Imperfection of existing criteria of optimality of structure-technological schemes for production of the structures.
- Professional deficit of intermediate chains and a qualified workforce, of methods of selection and system certification.
- State of technological discipline.
- Absence of modern technological and normative documentation, reference literature, systematic qualification upgrade and exchange of experience.
- Inadequate information and reference provision.

The last problem of the second block is the essence of the third block of problems; resolving them will ensure effective interaction between science and production:

- Deficit of modern manuals of production of glulam.
- Absence of pattern and lack of wide professional communication of participants of production processes and utilization of the structures and details (researchers, designers, planners, production workers, builders, etc.).
- Absence of specialized editions (bulletin, journal, magazine) on the problems of glued timbering and spare parts.
- Need of constant and systematic sources of information (consultation centers, seminars, round tables, etc.).

Valeryi Gandel

We appreciate the help of the Russian Association of Glulam Producers and Consumers in preparing this article.

Figure 5

Construction of an attic floor in Moscow



KRONOSTAR HAS RECEIVED THE FSC TEAM CERTIFICATE



KRONOSTAR is one of the biggest manufacturers of particleboards, MDF, laminate flooring, and wall panels in Russia. It is also one of the world's biggest manufacturers of wood-based panels, with an annual capacity of over 900,000 m³.

KRONOSTAR is a member of Krono Holding (Swiss Krono Group). The Group consists of ten enterprises based in eight countries (Switzerland, Germany, France, Poland, Hungary, the USA, and Russia). The total output of Krono Holding exceeds 8,000,000 m³ of different wood-based panels per year.

Questions regarding the certification of Kronostar enterprise are answered by Nikolay Pavlovich Troitsky, Director of Forest Resources.

What prospects does a group certificate offer to KRONOSTAR?

The certificate gives us the right to label our products with the FSC logo, which in its turn allows them access to environmentally sensitive markets. It is common knowledge that inquiries for delivery of certified products are made, as a rule, by the largest and most stable partners; relations with such partners are long term ones.



Nikolay Troitsky,
Director of Forest Resources

Certification significantly improves the company's image, and enhances the competitive advantages of its products. Finally, the products which underwent certification may claim a position in another price category.

What aspects were focused on during the certification audit of Kronostar?

- Relations between workers of logging enterprises and local communities: observation of the interests of all affected parties, including identification of places of special cultural, environmental, operational or historical (religious) importance on the leased forest areas.
- Following the technology of cutting areas' operations by all enterprises.
- Identification of red-listed species of flora and fauna in the leased forests. In June and July, Kostroma State Technological University (under supervision of professor Shoutov V.V.) conducted a field study, made a report and arranged a training seminar aimed at getting acquainted with the methodology of identifying rare and endangered species on the leased area. Not only forest managers but also every feller now knows what is a red-listed *Lobaria pulmonaria* lichen and where it may occur.
- Especially strict requirements relating to storage facilities for POL and residential waste.

What gaps in compliance were identified during the baseline appraisal?

The audit company issued "Recommendations for Preparation of Certification Audit." At this stage, KRONOSTAR developed:

- An environmental policy for the group of logging enterprises.
- A program of identification and protection of red-listed species' habitats.
- Drafts of a "Harvest Plan" and a "Forest Management Plan of Leased Forest Areas", which underwent environmental impact assessment.
- An Operations Guideline on the prevention and minimization of soil damage during harvesting; a partially adapted version of "Recommendations on Identification of Biological Diversity Spots during Land Allocation for Harvest" developed by FGU Northern Research Institute of Forestry.

It is noteworthy, that the gaps highlighted during the baseline appraisal were completely eliminated by the beginning of the main certification audit.

What obstacles did you encounter in the certification process, and how were the problems handled?

The major problem for all loggers is the absence of subordinate regulative acts following the Forest Code. Moreover, the lack of at least one such document. For instance, "Rules of Wood Harvesting" entails the delay in development of other documents vitally important for forest users: "Projects of Forest Development;" "Forest



According to the agreement with GFA Consulting Group Gmbh Audit Company (Hamburg), the enterprise underwent an audit during the period from 2006 to 2007, which ended with a decision to issue an FSC group certificate to KRONOSTAR CJSC.

The assessment was comprised of two steps: the baseline appraisal held in September 2006, and the main certification audit conducted in March 2007. In July 2007, KRONOSTAR was issued a group FM/COC certificate for roundwood, Certificate ref. GFA-FM/COC-001411.

The FSC certificate confirms that the products (roundwood) come from forests with environmentally responsible and socially beneficial forest management.



Plans of RF Subjects;” and “Forest Management Regulations.”

On completion of the main certification audit, Kronostar was issued recommendations which included priorities such as renegotiation of lease contracts in accordance with the new Forest Code.

Another obstacle is the non-compliance of the Russian Forest Legislation with FSC Principles and Criteria. Thus, leaving overmature hardwood trees is quite logical and justified if regarded from the point of view of maintaining biological diversity. “The Rules of Allocation of Standing Timber in Forests of the Russian Federation,” however, provide penalties for such actions equal to four times the forestry tax rate. In case of compact undercut, the fee is equal to the two-fold price of timber.

A logical question arises: “Who suffered from forest undercutting?” The environment did not; the state treasury did not either (forest users had paid for all the wood earlier). Forest management did not again! Why should forest users pay another fee for the same thing?

These are the non-market approaches demonstrated by the old “Rules;” and we have reasons to anticipate

that many of these provisions will be sustained in the new “Rules of Wood Harvesting.”

Other contradictions include the maximum allowable cutting area size during final felling.

We faced some difficulties identifying high conservation value forests as Russian legislation lacks an exact definition of the status of little-disturbed forests and, consequently, there are no legal acts regulating forest management in such forests.

In order to handle matters of dispute and receive comments, KRONOSTAR addressed FSC’s Russian Office and other affected parties, including WWF, the Forestry Department in the Kostroma region, and subordinate FMUs therein. It can be noted that we almost always find understanding on the part of environmental organizations.

Are there any special requirements to companies operating on the territory of Russia?

Enterprises operating in Russia must do their business in accordance with Russian legislation. In the case of forest management certification, KRONOSTAR took things a step further: the company committed to meet the requirements of the Forest Code, fulfill

obligations set in international conventions, and comply with the Principles and Criteria of the Forest Stewardship Council.

Which companies hold such certificates in Russia?

The certification process is developing fast in Russia, especially in regions where forest and woodworking industries underpin the local economy.

The largest FSC-certified forest areas belong to the enterprises of Ilim Pulp Corporation (Irkutsk region). Another holder is OJSC Solikamskumprom (Perm region), Tikhvin forest enterprise located in Leningrad region, and some others.

Only three logging groups hold FSC group certificates:

- “IlimSeverLes” (group of logging enterprises of Ilim Group)
- “CherepovetsLes” (group of logging enterprises located in the west of the Vologda region)
- “Onegales” (Arkhangelsk region)

Kronostar CJSC is the fourth company to be included on this list. However, if we take into account that none of the above mentioned companies is oriented in wood supply for wood-based panel production, we may say that Kronostar is the first enterprise representing this segment.

On issuance of a certificate to Kronostar, Kostroma region turned into a region actively implementing sustainable forest use in compliance with international principles and standards.

Kronostar was designed using the vast global experience gained by Swiss Krono Group with consideration of the latest achievements in wood-based panel production and environmental and resource maintenance.

Kronostar is a holder of an international ISO 14 001 environmental certificate and an OHAS 18001 environmental protection certificate.

The new plant meets the strictest European environmental requirements and supports inexhaustible forest use through its structure and everyday work, which are confirmed by the FSC certificate obtained by KRONOSTAR. ■



Valentin V. Peshkov,
Head of Wood Industry Sector
OJSC NIPIELesprom

ASPECTS OF THE RUSSIAN FEDERATION'S DEVELOPMENT OF PLYWOOD INDUSTRY

Plywood is traditionally referred to as the most effective type of timber, which is determined by its large size and strength balance, smaller labor content of its processing, possibility to create required properties by particular changes in the method of its production, and – first and foremost – its ability to replace sawn wood in many constructions.

Plywood is an excellent building material and it is widely used in joinery production, including doors, fabricated wood block flooring, upholstered furniture for naked flooring, and paneling of wooden house interiors; it is also used for car manufacturing, coach and wagon manufacturing, container manufacturing for timbering, and for other purposes.

The most intensive manufacturing of plywood took place during period of the 1951–1965 housing construction boom in Russia, when it almost trebled (see figure 1).

In 1951–1965 plywood was extensively used for individual housing construction (mainly wooden

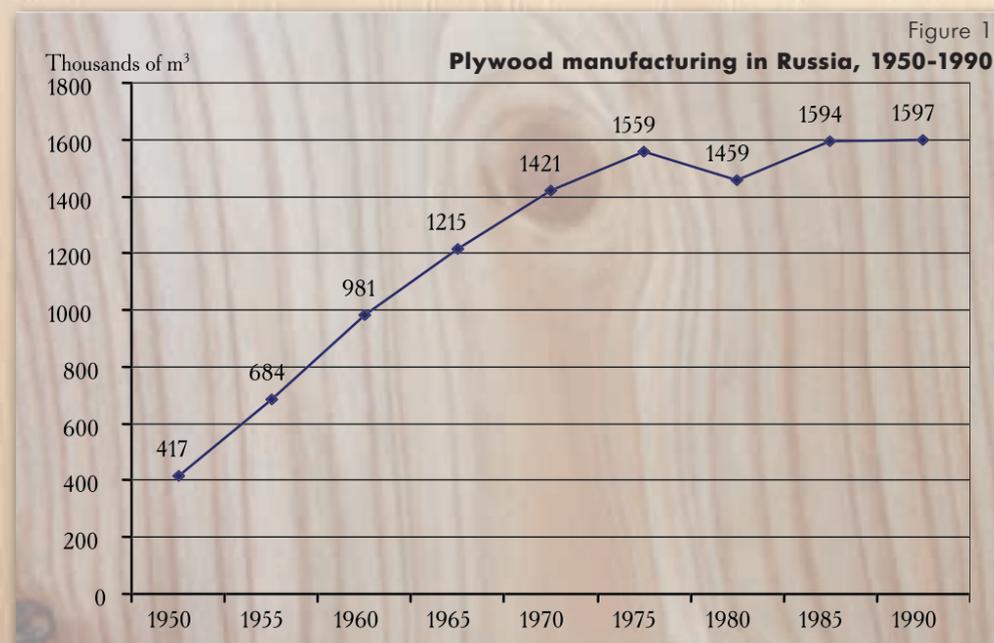


Table 1
Production, export, import and consumption of plywood in
Russia from 1990 to 1998 (thousand m³)

Year	Production	Export	Import	Consumption
1990	1,597	527*	22	1,092
1991	1,520	411*	28	1,137
1992	1,268	389	35	914
1993	1,042	463	42	621
1994	890	597	49	342
1995	939	678	54	315
1996	972	612	43	403
1997	943	632	37	348
1998	1,102	737	29	394

* including export of plywood to former republics of the Soviet Union in 1990–203 thousand m³, in 1991–157 thousand m³, which then was not considered as export

housing) as a material for interior paneling. During that relatively short period of time, the population, using both their own means and loans, built 277.2 mln m³ of accommodation, which comprised 40% of all accommodation built in Russia during that period. Large volumes of plywood were also used in furniture manufacturing.

In the 1960s, the manufacturing of fiberboard, a new building material, was launched in Russia. This material was widely used for the interior paneling of living premises since it was considerably cheaper than plywood, although its strength was much lesser than that of plywood. Consequently, the price of standard wooden houses significantly dropped. The boom of fiberboard production occurred between 1976 and 1980. Plywood was mainly exported. In the 1990s, the share of plywood in the total volume of the forestry, pulp and papermaking, and wood industries was 1.8%, and 4.0% of the volume of production of the wood industry.

When economic reforms started in 1992, the production of plywood in Russia started to decline and by 1995 it dropped by more than 40%. The most significant decline in plywood consumption (3.5–4 times) was in furniture manufacturing; it also declined in housing construction (3.0–3.5 times). These sectors of the national economy consumed approximately 75–80% of plywood. As a consequence of that sharp decline of consumption in the home market, many plywood manufacturers started looking to foreign markets for supply. In 1990 the export of plywood from Russia comprised

20.3% of the 324,000 m³ of its total production (without taking into account its consumption in the former republics of the Soviet Union). In 1995 the export level reached 71.4%, its absolute value doubled and reached 678,000 m³. In 1996 and 1997, the export of plywood somewhat dropped (Table 1). That process was caused by an undershooting of the US dollar exchange rate, and repercussions of the high inflation rate in Russia, which in 1992–1995 reached 3.5%.

In the seven years from 1991 to 1997, plywood production in Russia dropped by 41%; its export almost doubled while domestic consumption reduced by a factor of 3.1. The ruble devalued in Russia after the financial crisis in August of 1998. In 1999, the USD exchange rate increased by a factor of 2.5, compared to 1998. The average price of plywood for industries increased from 2,242 rubles in January, 1998 to 3,328 rubles in January, 1999 (approximately by a factor of 1.5); however, in the USD equivalent it dropped from \$374 to \$152 (approximately by a factor of 2.5).

The industry sector embraced an economic recovery caused by an increased demand for Russian plywood in foreign markets. Plywood manufacturing in Russia started to grow at a quick pace. In eight years, from 1998 to 2006, production of plywood in Russia increased by a factor of 2.4 with an annual average growth increment of 11.3%. There was an impressive growth trend in the export of plywood, which during that period increased by a factor of 2.5 (table 2).

Table 2
Production, export, import and consumption of plywood in Russia from 1997 to 2007 (thousand m³)

Year	Production	Export	Import	Consumption
1997	943	632	37	348
1998	1,102	737	29	394
1999	1,324	913	16	427
2000	1,484	974	38	548
2001	1,590	1,032	35	593
2002	1,821	1,158	31	693
2003	1,978	1,201	42	819
2004	2,246	1,438	43	851
2005	2,556	1,527	54	1,083
2006	2,598	1,577	47	1,068
2007 (I six months of figures)	1,357	797	23*	583

* estimate

During the first six months of 2007 the share of export in plywood production remains high, i. e. 58.7%. However, after economic recovery, the share of Russian export of manufactured plywood has been continuously declining. Thus, in seven and a half years it fell from 69% in 1999 to 58.7% in 2007, i. e. by more than 10%. Plywood consumption in the home market has been increasing at a high rate, i. e. over eight years, 1999–2007, it increased by a factor of 2.7 and practically reached 1990's level. In order to understand the meaningfulness of these trends one has to analyze the level of prices for plywood (Table 3).

In 1999, when the Russian economy started to recover, the cost-effectiveness of exported plywood compared to that in the domestic

market rose very sharply, by 43%. However, the continuous escalation of inflation in Russia, as well as a steady foreign exchange rate adjustment which began in 2003, facilitated convergence of prices for exported and domestic market plywood, which, by 2005, was equal. Thus, the opportunity for economic growth, which the industry gained as the result of the ruble devaluation in August, 1998, appeared to be exhausted. For the period from 2000, when it reached its lowest level, to the first six months of 2007, when the export price of Russian plywood nearly doubled, EX works prices increased by approximately a factor of 2.6. In 2006 the export price of Russian plywood reached the level of \$354, while the EX works price (in USD equivalent) was \$371, i. e. by \$17 or 4.8% higher.

Table 3
Prices of plywood exported from Russia compared to those in the domestic market, excluding VAT, from 1998 to 2007, USD equivalent

Year	Average annual price of 1 m ³ of exported plywood, USD	Average annual price of 1 m ³ in the domestic market, USD equivalent	Price variance, USD (column2 – column3)
1998	312	283	+29
1999	256	173	+83
2000	228	171	+57
2001	237	202	+35
2002	244	227	+17
2003	251	240	+11
2004	296	288	+8
2005	346	347	-1
2006	354	371	-17
2007 (I six months' figures)	440	438	+2

Table 4
Price of round timber in Russia from 2000 to 2007 (timber manufacturing plants EX works prices, excluding VAT, in USD equivalent)

Timber assortments	2000	2001	2002	2003	2004	2005	2006	2007 I six months of figures	2007 I six months of figures related to 2000, %
Coniferous saw logs	16.6	20.4	20.7	24.0	30.2	34.2	41.0	59.1	356.0
Birch saw logs	9.4	11.6	11.1	12.4	14.9	21.7	22.8	37.6	400.0

In 2006, domestic market plywood price growth was 106.9% – 102.8% was due to inflation, and the price growth caused by the ruble foreign exchange rate adjustment was 104.0%. The high foreign exchange rate adjustment diminished the marketability of Russian plywood in foreign markets.

Due to high prices, plywood consumption completely stopped in 2006. During the first six months of 2007, both the export and domestic prices of plywood significantly increased, by 124.3% and 118.1% respectively.

However, the level of prices in the domestic market is lower, so in 2007 one can expect a growth of domestic consumption of 8-9%. One of the reasons for the price increase of industrial production is the significant increase of cost in raw materials (the share of cost of plywood raw materials is 40-45% of its net cost). Rosstat keeps no statistics of plywood raw materials prices; however, the trend of its increase can be traced using birch saw logs as an example (Table 4).

In 2001-2007 the price of round timber significantly increased: the price of coniferous saw logs increased by a factor of 3.6, that of birch saw logs – by a factor of 4.0. In only the first six months of 2007 the price of birch saw logs increased by 65%.

However, EX works prices of plywood in the Russian market increased just by a factor of 2.4, which reflects a permanent increase of pressure of the raw materials price factor on the total cost of manufacturing.

Such a rapid increase in costs of raw materials used for plywood manufacturing is generally caused by the fact that they are the scarcest assortments in current demand by the timber industry. Accessible

reserves of plywood raw materials in the European part of Russia are continuously decreasing, while the distance of raw materials shipped to manufacturers is increasing.

Only 1st and 2nd grade raw materials are required for plywood manufacturing; depending on the size of the plywood; the diameter of timber varies from over 16 cm for manufacturing 1,525 mm x 1,525 mm plywood to over 18 cm for large size plywood, i. e. these are the best quality and the largest size raw materials which occur in forests in limited amounts. A serious factor, which caused the price increase, was the considerable export of plywood raw materials abroad until July 1st, 2007. It resulted in a situation when the largest importers of plywood in the world, such countries as Japan, China and Korea, stopped purchasing plywood from Russia. From Russia, in 2006, China imported 19.1 mln m³ of coniferous round timber and 3.2 mln m³ of birch round timber, Japan imported 5.1 mln m³ of coniferous round timber and Korea – 2.0 mln m³ of coniferous round timber. Thanks to round timber imported from Russia, China became one of the leading exporters of coniferous plywood in the world market.

Further development of plywood manufacturing is especially important in the light of the All-Russian National project "Affordable and comfortable accommodation for the citizens of Russia" adopted by the President and the Government of the Russian Federation. According to the National project, in 5 years, house commissioning should increase by a factor of 1.8 and reach 80.0 mln m³ of accommodation by 2010.

At present a clear trend can be observed, i. e. a growing share of wooden houses in the total volume of house commissioning in Russia. However, up to now the range of safe materials used for wooden house construction is fairly

limited. The main materials remain sawn wood and plywood.

According to data from the "Wooden Housing Construction Association," a change-over to the construction of wooden houses will allow to cut the net cost by a minimum of 40% and to reduce the time of construction by a factor of 1.5. Savings on fuel and energy resources will amount to 15-20% as a result of cutting expenses on manufacturing cement, concrete and reinforced-concrete constructions.

By 2010, according to the estimates of the Association, the volume of commissioning of prefabricated wooden houses can rise up to 10-12 mln m³, i. e. by a factor of 2.5–3.0, compared to 2005.

Since the industry has depleted the resources it gained in August 1998 due to devaluation of the ruble, plywood manufacturers have to increase their production efficiency using their internal reserves. The main technical and economic data for various groups of leading plywood manufacturers in Russia is presented below (Table 5).

According to the above data, the industry manufacturing activities are far from satisfactory. Average profit of the 35 manufacturer groups, whose average volume of production is 67 thousand m³, is a turnover of just 10 kopecks per ruble, which corresponds to a cost-effectiveness of 11%. Even in the first group of manufacturers with an average production volume of 133 thousand m³ per

Table 5

Main technical and economic data for various groups of leading plywood manufacturers of the Russian Federation in 2005

Manufacturer	Business year turnover (commodities and services) thousand rubles	Profit thousand rubles	Profit per ruble turnover (col3/col4) kopecks	Number of employees	Annual output per employee thousand rubles (col2/col5)	Volume of plywood production thousand m ³
1	2	3	4	5	6	7
Group I: over 1 bln rubles turnover (9 manufacturers)						
Group total	16,816,781.0	2,217,000.0	13.2	16,396	1,025.7	1,199.1
The same per manufacturer	1,868,531.2	246,333.3	13.2	1822	1,025.7	133.2
Group II: 500 mln – 1 bln rubles turnover (8 manufacturers)						
Group total	6,104,428.0	193,511.0	3.2	12,715	480.1	642.3
The same per manufacturer	763,053.5	24,188.9	3.2	1,589	480.1	80.3
Group III: 250 mln – 500 mln rubles turnover (6 manufacturers)						
Group total	2,522,247.0	293,757.0	11.6	6,384	395.1	253.7
The same per manufacturer	420,374.5	48,959.5	11.6	1,064	395.1	42.3
Group IV: 125 mln – 250 mln rubles (9 manufacturers)						
Group total	1,417,270.0	13,356.0	0.9	4,779	296.6	149.4
The same per manufacturer	177,158.8	1,669.5	0.9	597	296.6	18.7
Group V: less than 125mln rubles turnover (3 manufacturers)						
Group total	151,879.0	10,265.0	6.8	985	154.2	32.8
The same per manufacturer	50,626.3	3,421.7	6.8	328	154.2	10.9
Total (35 manufacturers)	27,012,605	2,727,889	10.1	41,259	654.7	2,277.4
Total per manufacturer	794,488.4	80,232.0	10.1	1,214	654.7	67.0

Table 6

Groups of Russian manufacturers (over 10 thousand m³ of annual plywood production – 2005)

Groups of manufacturers according to annual volume of plywood production	Number of manufacturers	Volume of plywood production, thousand m ³	Average volume of plywood production per manufacturer, thousand m ³	Group ratio in volume of plywood production, %
Group I Over 100 thousand m ³	7	1,051.0	150.1	42.8
Group II 50 to 100 thousand m ³	13	949.5	73.0	38.7
Group III 25 to 50 thousand m ³	8	298.4	37.3	12.1
Group IV 10 to 25 thousand m ³	11	156.7	14.3	6.4
Total	39	2,455.6	63.0	100.0

manufacturer, the cost-effectiveness does not exceed 15%.

In 1999, when the country's economy started to recover, the average profit of the industry – when its average production volume was 39 thousand m³ per manufacturer – was a turnover of 28.3 kopecks per ruble, which corresponded to the 40% cost-effectiveness. To ensure a significant increase of production efficiency the manufacturers had to increase their labor efficiency and substantially increase the level of production concentration. The 2005 data on annual output per employee – for the manufacturers who achieved the highest in the industry efficiency of labor – are presented below:

- CJSC Chudovo – RWS (Novgorod Region) – 2,247 thousand rubles.
- LLC Syktyvkar Plywood Plant (Komi Republic) – 1,602 thousand rubles.
- LLC Permsky Plywood Plant (Perm Region) – 1,219 thousand rubles.
- OJSC Fanplit (Kostroma Region) – 1,146 thousand rubles.

Some interesting facts to describe volumes of plywood production by the above-mentioned manufactures are as follows:

- OJSC Fanplit (Kostroma Region) – 193.5 thousand m³.
- LLC Permsky Plywood Plant (Perm Region) – 178.8 thousand m³.
- LLC Syktyvkar Plywood Plant (Komi Republic) – 163.8 thousand m³.
- CJSC Chudovo – RWS (Novgorod Region) – 73.9 thousand m³.

In 2005 CJSC Chudovo – RWS was in the 15th position on the list of Russian plywood

manufacturers. Thus, one can make the conclusion that the industry has enormous reserves for increasing its production efficiency.

In 2005, 64 manufacturers were producing plywood in Russia. Approximately 40% of them produced from several hundreds to several thousands cubic meters of plywood per year. There were 39 manufactures who produced over 10 thousand m³ of plywood per year. In 2005 they produced 2,455.6 thousand m³ of plywood (96.1% of all plywood produced in Russia), the same manufacturers produced nearly all exported plywood. The average volume of plywood production among the manufactures producing more than 10 thousand m³ of plywood a year was 63.0 thousand m³. These manufacturers are divided into 4 groups, as can be seen above (Table 6).

In 2005 there were 20 plywood manufacturers in Russia with an annual production volume over 50 thousand m³, who produced 2,000 thousand m³ of plywood, i. e. 78% of the total plywood production in Russia. There were 21 plywood manufacturers in 2006 - they produced 2,088 thousand m³ of plywood (80% of the total plywood production in Russia).

In 2007-2010 concentration of production in the industry should significantly increase. The volume of production at CJSC Fankom is expected to increase from 120 to 200 thousand m³, and that of OJSC Parfinsky FK – from 100 to 160 thousand m³. The Novoviatkinsky Plywood Plant, with an annual 93 thousand m³ production volume, is going to be put into operation. The country's largest plywood manufacturing plant, with an annual 350 thousand m³ production volume, is being built in the Krasnoyarsk region.

CHALLENGES AND OPPORTUNITIES IN THE RUSSIAN BIRCH PLYWOOD BUSINESS

INDUFOR is a major consulting company in Europe which focuses on the forest industry. INDUFOR provides consulting services to all branches of the forest industry, including forestry operations, process design for the wood processing industry, environmental management, and business strategy development. INDUFOR has been assisting its clients for the past 30 years, during which it has developed into a global service provider for global forest industries. INDUFOR employs 57 world-class professionals and has offices on four continents. INDUFOR has completed over 450 projects in over 100 countries. Russia has become one of the major markets, with numerous projects demanding INDUFOR over the last 10 years. Consequently, INDUFOR has become one of the leading providers of consultancy services for major Russian forest industry companies. Strong business understanding and industry experience, as well as a continuous drive for better service, are INDUFOR's main assets.



Dr. Olli Haltia
CEO of Indufor Oy
Courtesy of Indufor Oy

Versatility and broad product portfolio is one of the key winning points of birch plywood. Birch is an excellent raw wood for plywood. Its strength properties may not be superior to some other species, but the homogeneity of wood, availability, and cost-competitiveness make birch the most valued species for plywood production for the coming decades.

Courtesy of UPM

Dr. Haltia, in previous discussions concerning this interview, you mentioned that the interview should be focused on the birch plywood business. What led you to focus on the birch plywood business?

One reason is the unique characteristics of this industry: Russia is one of the few places in the world where the birch plywood business exists and has potential to grow. This is naturally due to Russia's raw wood resources: the business exists only in regions with significant birch resources. We can say that the global birch plywood industry is located in Russia, Finland, the Baltics, and China. This makes the business unique if we compare it to the sawmill industry or most wood-based panel businesses.

We are familiar with the Finnish suppliers in this business, but the Chinese competitors are less well-known than the Russians. How would you characterize the Chinese players in the birch plywood business?

It's interesting that you noticed China, it's quite typical. It seems that every time Chinese companies are doing something it raises the fear that Chinese companies are entering the markets with superior competitiveness! But actually, we see that the players in this business are still quite different from each other.

The Chinese industry lags far behind all other countries when it comes to competing in the birch plywood business. The average mill in China is buying veneer sheets from dozens of veneer suppliers, and pressing low-quality panels with an outdated pressing line. Their competitive edge is the very low labor cost, which allows the companies to use a large amount of working hours per one cubic meter of plywood. When it comes to quality, the Chinese plywood may often be acceptable in its visual properties, but its technical properties cannot match the Russian quality. Remember that the bulk of Chinese plywood is comprised of mixed plywood with a poplar or softwood core, and veneer, birch or tropical hardwood face.

We also need to take into account the accuracy of Chinese statistics. Who knows what the real production volumes of plywood in China are, and furthermore, how much of that is actually pure birch plywood? These basic issues cannot be verified by anyone. Our teams have been visiting several Chinese plywood companies over the

years and really, the Chinese plywood industry is incomparable to the plywood industries of the Russians or the Finns.

And how about the Finns, the Russians, and the Baltics?

When it comes to the technical level of these companies and the quality of their service and products, the Finnish companies are still the leading operators. For the Russian readers, UPM-Group and Finnforest are probably the most well known companies. In the Baltics, the number one company is definitely Latvijas Finieris, and it's rapidly following the Finnish companies when it comes to the quality of its plywood. Still, we see that this company is mainly still following the Finnish innovators in their R&D rather than innovating new products.

We still see that the average Russian plywood company is behind its Finnish competitors, both when it comes to product quality and service. This is due to the technological advantage of the mills in Finland, but also due to the marketing strategies of these companies and how they manage the problems involved with raw wood sourcing. Also, the logistics of some Russian regions to European markets require a sizable effort and are causing a headache for some companies. In Russia, the wood quality in some regions is even better than in Finland or Latvia. There are some very good mills in Russia, e.g. the Chudovo mill in Novgorod. It is a well-operated mill, which has the capacity to produce superb quality. It has been operating since the late 1980's and it can supply the same high quality output as the best plywood mills in Finland. So the Russian operator can meet the highest customer needs if all parts of the business are operating well. This sets the target for the Russian birch plywood business: to reach the world's highest quality in birch plywood!

In summary, I would say that there are some countries offering significant cost advantages in the plywood business, i.e. Russia and China. We have an additional country, i.e. Finland, which has high cost levels and equally high product quality and product price. Then we have the Baltics, which have rapidly rising cost levels along with relatively high product quality and prices. China is a low-cost, low-quality supplier. In Russia, we can find relatively good suppliers





Veneer processed by a Raute lathe line.

Courtesy of Raute



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UPM Chudovo. A Finnish-based UPM Group operates one of the most modern birch plywood mills in Russia in Chudovo, Novgorod. The latest production expansion of this mill took place earlier this year.

Courtesy of UPM



Drying... A typical Chinese plywood company is buying dried veneer sheets from small suppliers instead of producing all the veneer sheets by itself. The picture shows the outdated technology level of veneer drying.

Courtesy of Indufor Oy

as well as traditional suppliers sourcing fairly low product prices.

What trends do you see taking place in the global scene?

I see significant growth in the birch plywood business on a global scale. Birch plywood is based on sustainable raw wood sources. Thus, it does not face the same challenges as tropical hardwood plywood, which is declining now and in the long-term. Birch plywood is taking advantage of the business that is opening as tropical hardwood declines, especially from Indonesia. This production growth is taking place in two countries --Russia and China-- whereas the demand for birch plywood is still strong in high-income countries in Europe.

Who do you see leading the growth in the modern plywood business?

Most definitely, the leader is Russia. The Chinese industry is not using domestic raw wood sources, and relies largely on its Russian wood supply. Russian mills can use its domestic wood at far lower prices than Chinese operators. We have also recently witnessed a rise in the custom tariffs of exporting birch logs from Russia. So definitely, the modern birch plywood business growth will be mostly led by Russia. Another interesting issue is that we already see that the Chinese companies are investing and looking for opportunities in Russia, especially in Siberia. Matching Russian raw wood resources with the Chinese markets can be attractive in some locations near the Chinese border. This naturally is the target of the higher export tariffs.

You mentioned the technological differences in the producer countries. What technological innovations are critical for successful, modern plywood companies? What are the fundamental issues for Russian operators looking at the global market?

We cannot say that it is a matter of one or two technology solutions. There's a whole set of issues which fundamentally define which segments, and to which end-uses of birch plywood, a particular mill can sell to.

An especially urgent matter in the Russian industry is panel size. A major share of Russian birch plywood is still, in a way, non-standard panel size; I mean the traditional square panel size. This type of plywood cannot be sold to all segments where there is demand. Thus, the starting point is that the panel

size of the production must be 4 ft by 8 ft, 8 ft by 4 ft, or 5 by 10 ft – this is the case in basically all modern Russian plywood projects.

In terms of coatings, we see a trend of more sophisticated coatings entering the market in addition to the traditional phenol film coating. These new coatings may well prove to be attractive for clients and thus for the plywood companies too, but the use of these advanced coatings is linked with the company's capability to supply plywood to very demanding end-use customers, such as light transportation segment customers. If the company is able to sell plywood products with fairly simple coating for this segment, it is relevant to look for the advanced coatings in the long term.

Energy issues are well arranged in the Finnish mills as we have seen. Why is energy such a big issue in Finland?

True. Finland has some of the most advanced plywood mill energy solution combinations in Europe. A good example is by UPM in Ristiina (Eastern Finland): a CHP plant alongside of the super scale softwood plywood mill. The mill gets all of its heat and almost all of its electricity from the plant, and sometimes electricity is being sold to the grid too. This power plant has a generation capacity of 19.6 MW of electricity, and 72 MW of heat processing. So it's a fairly sizeable operation. And the nice thing in this case is that a separate company owns the power plant, so the investment into the CHP facility did not raise the investment cost for the plywood mill. After all, generating heat and electricity is a different business from plywood production and sales.

If a large-scale plywood mill is to be built, the question of energy supply is a fundamental issue. In this case, the energy solution is also a solution for the problem of waste generated by the mill. As the waste is only partially suitable for the pulp industry, conversion into energy is often a superior way to get rid of this material. So we promote Combined Heat & Power (CHP) technology that uses bark and wood waste from the mill and supplies all the heat for the mill while meeting a large share of its electricity needs too. The downside is that there is a high investment cost in these facilities. Yet, as previously mentioned, this technology solves so many problems related to waste wood and its logistics, that all investors looking at plywood mill investments should evaluate the matter.



Forest Industry Consultants Mikko Jääskeläinen (left), Allan Flink and Jussi Silventoinen from Indufor discussing a sawmill plan advancing in Western Russia.

Courtesy of Indufor Oy



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High-grade birch plywood has commonly been used by large formwork system companies such as Peri GmbH. Birch plywood is playing a crucial role in these applications as shown in the picture.

Courtesy of Indufor Oy



LNG tanker, transporting natural gas is one of the most demanding end-use applications of birch plywood in the world. A modern LNG ship includes up to 1,800–2,200 m³ of high-grade birch plywood, used for insulation boxes of the gas tanks. Courtesy of UPM

We have seen some Finnish suppliers going strongly into the further processing of plywood in the mills. How do you see the attractiveness of the CNC machining of panels in the mills?

It all depends again on the segments and the customers. CNC machining of panels in the mills is the future of this business too. But this is not the first or even the second step when developing a plywood company. These steps, CNC, cut-to-size services, advanced coatings and so on, are relevant when the company has reached a high level in its production efficiency and service quality with the basic products.

You have pointed out that the approach to the markets differs significantly between Finnish and the Russian operations. What do you mean by that statement?

There are fundamental differences between the market approaches of Finnish and Russian companies. During the last fifteen years, the



High-grade birch plywood can be used for the most demanding decorative uses. Plywood makes a great contribution to modern interior design as shown in the picture.

Courtesy of UPM

Finns have been actively shifting from sales via traders and distributors to direct sales. This means that when the actual customer is an industrial company, the plywood is sold directly to this company and not to a trading house, which would take its handling fee, before the plywood goes to the actual end-user. Naturally, some volumes are always sold via traders, but in the case of a large, industrial customer, like a large construction company or truck floor and box manufacturer this is not necessary. Why not sell directly? The Finns are doing this successfully, and thus increasing the price level the supplier gets from the plywood. This also increases the supplier's know-how of the customer's business, which is an important factor when a plywood company is developing its products.

How much is actually sold nowadays by the Finnish companies directly to the industrial users?

Only the companies themselves know the exact figure. But if we talk about birch plywood, I would estimate that the most advanced companies are selling 30–40% of their birch plywood directly to the industrial customers, and this figure is slightly increasing. It was far less ten years ago. Actually, the important issue here is their approach, not the current figure. This approach is something that could be considered by the Russian companies, too.

And in Russia, what is the "mainstream" approach?

Sales via traders, and in many cases, the idea is to stay within this strategy. Russian birch plywood is typically going to the UK, via large trading houses that may even have the exclusive right to sell to the UK markets. This means that the supplier in Russia is not even sure who uses the plywood in the end. This leads to two things: loss of the trading margin by the producer, as well as losing the opportunity to learn about its customers' needs and preferences. As a result, it is very difficult to conduct the R&D efforts with well-defined targets.

What should be done then? How should the business model develop?

It is a challenging task; it has taken some ten years for the Finns to reach this level. I would say that the key is to look at the segments where these direct sales have the most potential to

take place, and then to find competent people to start this new type of sales operation. Perhaps the formwork segment in Central Europe would be the most feasible path. Secondly, heavy transport, and more specifically in this segment, truck floor & box manufacturers. But this is a long, challenging route.

You mentioned some customer segments already. Which segments do you see as having the most potential for our suppliers?

The selection of segments is based on the cost competitiveness of the supplier, quality and service competence, as well as the competition and we have to remember that the suppliers in the segments are changing constantly. Finnish mills have been very keen in the formwork, light and heavy transport, LNG shipbuilding, and some specialty segments, as well as the construction segment, naturally. For Russian companies, I would say that the formwork and construction segments are the most attractive and feasible ones. The formwork segment is further divided into the loose panel business and the formwork system panel business. Russians are already fairly strong in the loose panel business, and a natural step would be to advance into the system panel business, i.e. sales to the companies using plywood in the formwork system modules. The formwork system business is an attractive business because it's a large user of plywood and because it's growing fast.

What kind of companies are customers in this business? What kind of value chain do they have?

Customer companies are mega players such as Peri GmbH, Doka, and Ulma. Those companies typically use birch plywood in concrete casting modules, and one panel can be used up to 100–200 times if the coating is very good and the customer is careful in the use of panels. The value chain typically starts in Finland. The plywood is then sold to say, Peri in Germany, where the panel is cut to size and assembled. Then the whole module can be shipped, for example, to Italy with the aim to make concrete casting in a construction site. Birch plywood is a super product for this usage.

Many of our readers are experts in plywood marketing in Russia, but what is your view of the growth of consumption in Russia?

The growth of birch plywood consumption is typically driven by economic growth, growth of customer industries, and the substitution trend. That is, the process when birch plywood is winning market shares from other products. In Russia, the latter is not a very strong driver, but other growth factors are developing strongly. Also, one factor driving this growth is the increase of the formwork system usage in the building sector, as described before. Naturally, we have some estimates, but I'm reluctant to give a fixed figure in this case. Growth is strong. In fact, surprisingly strong. We have estimated that the growth is slightly over 10% per annum for the mid term future.

How important is the growth of the construction sector as a driver of birch plywood growth?

It is important. It drives the consumption of the formwork segment as well as consumption in various miscellaneous uses of plywood in the



High-grade birch plywood can be used for the most demanding decorative uses. Plywood makes a great contribution to modern interior design as shown in the picture. Wall structures are made of birch plywood components. Courtesy of UPM

construction sites. Yet, it is a far weaker factor in the consumption of birch plywood than, for example, in the US, where the bulk of softwood plywood is being used in housing projects.

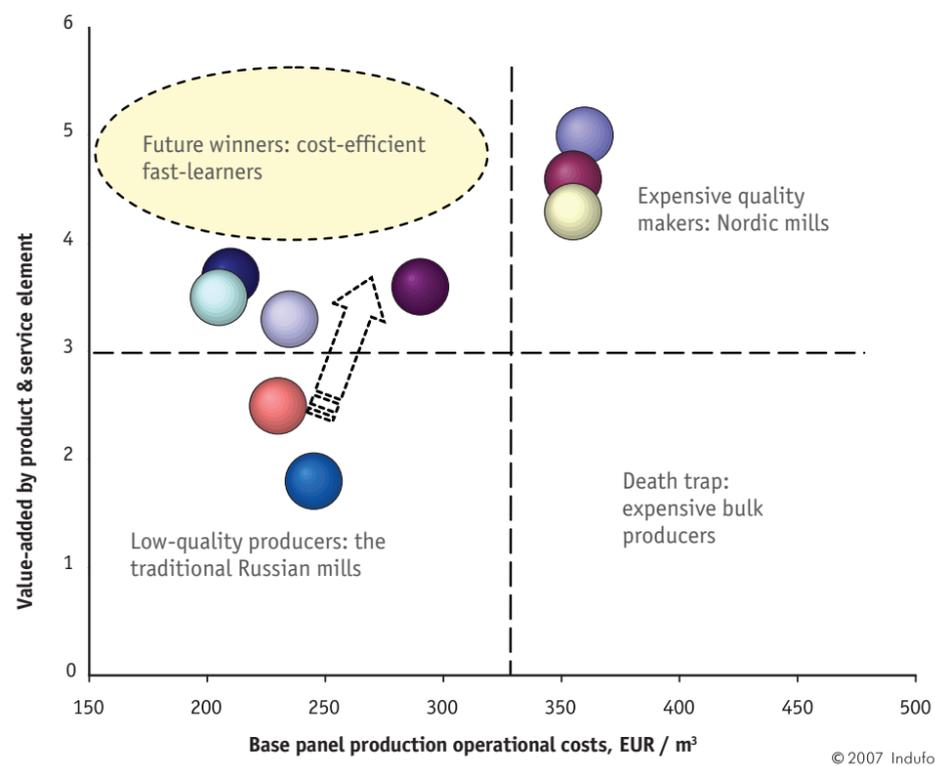
What key development areas do you see in the "forestry end" of the plywood business in Russia?

Overall, efficiency development in the Russian forestry business offers significant potential. In cases where harvesting operations are partially or fully in the hands of the plywood company, there is significant savings potential available just in the development of harvesting. Of the mill gate cost of birch logs, the most significant parts are transportation and harvesting costs. Typically, development is linked to the increase of cut-to-length harvesting with harvesters, and to the decrease in the use of the traditional full-tree harvesting model.

For the plywood mills, it is of utmost importance to have fresh logs in the process. This typically requires optimization of harvesting areas, thus allowing the harvesting period to continue during some of the summer months. Another solution, available in northern areas, is the use of ice storages when storing birch logs over the summer period. Using this system, the logs actually stay totally fresh, so that fresh logs are available for the plywood mill in the difficult period of August – October.

In summary: develop the use of harvesters and secure the supply of fresh logs to the mills, one way or another.

The challenge is that the birch in Russian forests is growing as a mixed species, and is not a dominant tree species anywhere. What problems is this causing in your mind?



The graphics indicate the cost-competitiveness of production as well as the value-added into the service and product. The traditional Russian mills are in the left corner: cost efficient in production but producing generally low value-added, traditionally sized plywood. The right upper corner shows the typical Nordic suppliers: high quality products and service, but expensive production. The left upper corner shows the winners of the future. In this category are the best Russian mills.

This is the case everywhere. This is not necessarily a huge problem. As the sawmill sector is growing in Russia, it directly increases the supply of birch logs to the markets. And vice versa. The low value and low demand for pulpwood is clearly a problem in the whole sector, especially for the low-grade hardwood pulpwood. The long-term solutions for these problems would be enhanced pulpwood export efforts, coupled with new pulp mills in the region, or the use of these wood flows for energy in Russia. I don't believe in the latter, but perhaps we may witness pulp industry investment in Russia in the near future.

You mentioned that the birch plywood sector is one of the key growth sectors of the Russian forest industry. Why is that?

It's because of the cost competitiveness. Certain areas of Russia have the best birch quality in the world. And overall wood cost at mill gate is competitive not only to Finland and Latvia, but even to China, which has the highest wood cost in the mill. So companies can benefit from high quality round wood and low prices! Typically, a Russian birch plywood mill can get birch logs from the company's own harvesting areas at a price of about \$33 – \$40 per cubic meter. In Finland, the price is at least about \$78 – \$85 per m³. The problem is the residual wood from the plywood mills. In Russia this material often has a very low price, where as in Finland, it is typically priced between \$155 – \$188 per ton of dry matter, delivered to the pulp mill.

A modern plywood mill is not a very labor-intensive operation. A modern mill needs less than 280 persons in a capacity of 90 000 – 100 000 m³. In traditional Russian mills this production requires perhaps 800 – 1000 persons. Of course, Russian mills enjoy a substantial cost advantage over Western mills in terms of labor costs.

Russia also has an advantage when it comes to energy. The price of gas in Russia is just a fraction of the price in Finland, and also the price of electricity is about 15 – 30% less than in Finland for industrial users.

In summary: A good location is important, meaning that the costs of reaching the port of St. Petersburg, or a Finnish export port is not too high. Russia is the most cost advantageous

location for the birch plywood business. Whether this is enough to attract large investments is a question of the risk-return ratio. But the potential is definitely there.

You have worked with clients in the plywood business both in Russia and elsewhere. What strategic development paths do you see and recommend for the major players?

Having done their homework, competent, developing companies are well familiar with the key potentials ahead, and are well prepared to face the key trends that are likely to be seen in Russia. Big players will continue to merge, as we have already seen during the last few years. This creates stronger companies that can develop marketing and R&D, as well as optimise production between the mills. This offers significant new profit-making potential, and by this, big players can increase their market shares. Old mills producing traditional panel sizes will have to decide whether they want to develop or whether they want to see their business decreasing in time. So the number of players will decline, although some totally new mills with modern concepts will enter the business

Some new "super mills" will be constructed, although many of the plans will remain merely plans. So we will see new mills with capacities of up to 100 000 – 120 000 m³ being built in Russia in the coming years.

From the market strategy side, development will slowly follow the path of the rivals, by which I mean towards sales directly to the customer industries.

Birch plywood is a modern product gaining market share from tropical hardwood based production. Russian mills will play a major role in this business during the next ten years. Western mills will stay competitive in the high-end products, but the quality edge between them and the best Russian operations is slowly decreasing.

As a whole, I think that a company located in western Russia and having strong connections to harvesting operations, may be a successful concept for the future. If the company invests in new capacity technologies, is well-located logistically, and is strongly investing in human resources and marketing competence, it is going to be a winner in the future.

THE RUSSIAN FURNITURE INDUSTRY: A THORNY ROAD TO AN UNCERTAIN GOAL

The Russian furniture industry is a sector with a long history, though this has not helped it take up a leading position in the world market. The main culprit for this failure was the planned economic system that prevailed during the Soviet period, when the concept of competition simply did not exist in the country.

A DREARY CHILDHOOD

As in many other consumer goods production sectors, furniture enterprises in the Soviet Union were oriented towards the output of their products in line with directives "from above," rather than on the basis of customer demand. Marketing, advertising, sales – all of these activities, without which the success of any modern company is unimaginable in the market – were absolutely meaningless within the framework of a planned economy.

It cannot be said that no thought whatsoever was given to the consumer, but the enterprises did not have their own staff designers; the design organizations were entirely separate from production, although production facilities did have small experimental workshops. Later, the National Furniture Research and Design Technical Institute (VPKTIM) was established, which

worked on the unification and standardization of furniture production, as well as on design projects.

However, here, as in any other matter, standardization and centralization had their negative aspects. Furniture enterprises and design offices were not entitled to design furniture independently; all ideas had to be approved in Moscow, and there was no guarantee that even then the artistic committee would reach a favorable decision on the project. In effect, the state held monopolies in almost all spheres of the economy. As a consequence, in the almost identical apartments of Soviet citizens stood almost identical furniture with only minimal variations such as color, upholstery material, finish, etc.

With an approach such as this, furniture was, for the most part, uniform in both design and quality. However, this did not stop furniture from achieving successful sales – people were even put on waiting lists with the demand being so great, accompanied as it were by an enormous boom in housing construction, and there were virtually no choices.

The economies of the socialist bloc were closed to supplies of virtually any products from the "capitalist world", as it was known at the time. Furthermore, even within the confines of one country a product could not be freely transported; wherever it had been directed to go, that is where it would be. Products from "brother" socialist countries were few and far between, and were

bought up in an instant. The chance of getting hold of a suite of furniture produced in Poland, Hungary, Romania, Bulgaria or the GDR was beyond the wildest dreams of the average Soviet family, as these countries produced furniture that was markedly superior to Russian equivalents in terms of more interesting design, better quality and more durable workmanship, and could be considered as a one-of-a-kind exclusive by anyone living under the Soviet system.

The sector should have worked like clockwork. The plan took first priority with its production volumes, minimization of material outlay, etc. In conditions whereby the planned assignments were constantly expanding, with a deficit of materials and a huge demand for furniture from consumers, the enterprises were engaged in churning out numbers. There were wood-processing or furniture plants in almost every region. And each of them produced one or two types of sofas, armchairs, a "unique" type of bed, couches, and ottomans. The plant's chief concern was to receive the materials and produce 100% of the plan, plus 0.2% over and above the plan to get a bonus.

Moreover, it is likely that it was specifically the compulsion to minimize material outlay that became the cause of the catastrophically low quality of Russian production in general, including furniture. Hinges that squeaked and jammed, handles that broke off, chipboard that crumbled, edges that came unstuck, paper that peeled off... all were standard phenomena, and furniture of this nature is still to be found in every second Russian household.

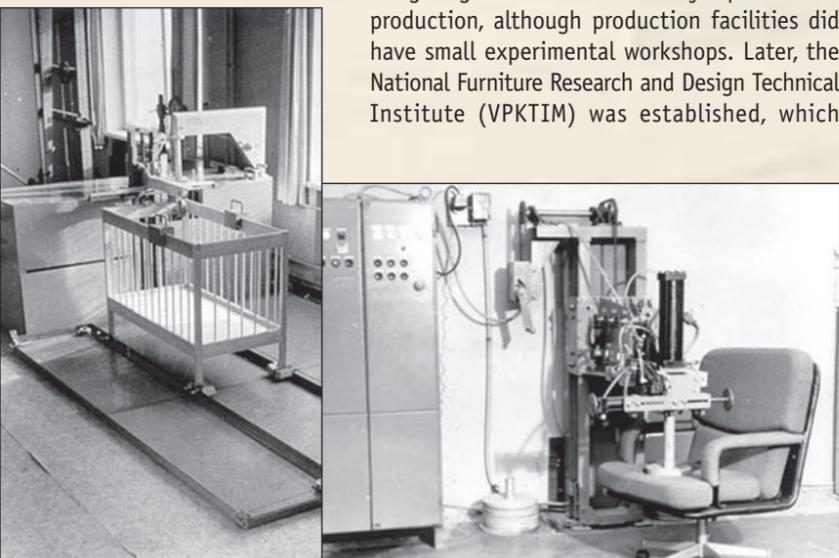
Attempts were made by the state to force the furniture enterprises to broaden their range. In order to achieve this, a product line had now to pass a compulsory assessment process. Furniture that was assessed as being of lower quality was removed from production of an enterprise, whereas furniture production of higher quality was forcibly introduced in other factories. All design work was aimed at developing furniture of the highest quality. This approach facilitated a significant improvement in the consumer qualities of Russian furniture, and an extension of the range, including the production of wall cabinets, kitchen cupboard sets, and upholstered furniture suites. However, the quality of this furniture was only considered high by the Soviet customer.

Furniture production volumes in the USSR grew steadily. Even before the Second World War,

most of the factories in European Russia had been reconstructed and expanded, and mass production had been introduced. After the exhausting strain of the war, it took a long time for the industry to get back up to speed, and sawmilling and woodworking enterprises were drawn into furniture production, with small furniture workshops organized in the short term. By the early 1950s the pre-war level of production had been exceeded. The next major boost to expanding production was the famous decree from the Communist Party Central Committee and the Soviet of Ministers, issued in 1957, regarding the development and construction of housing across the country. Production volumes increased multifold, and in some categories, the increase was very substantial. In 1972 furniture production in the Soviet Union was worth more than 3.3 billion rubles in financial terms. It is fairly tricky to express this in a US dollar equivalent, as free trade in foreign currency was prohibited in the USSR, and the state exchange rate of 0.6 rubles to the dollar was hardly a realistic reflection of the true value. However, if we do use this rate of exchange, then we arrive at a total of 5.5 billion US dollars.

There is a point that needs to be made in connection with production technology: from the 1950s to 1970s, the main construction material for cabinet furniture was solid wood. However, the production costs for this was fairly high, and there was insufficient raw material even for making veneer, which greatly slowed growth in furniture manufacturing. The early 1980s were noted for the appearance of chipboard, which was cheaper, easier to produce and simpler to process. Its widespread use allowed furniture production to burgeon in Russia. Along with natural veneer, the boards were finished with decorative paper treated with gum, and from the mid 1990s laminated chipboard became more and more common. However, this did not instill any more variety in the range of the furniture that was produced.

There were no technological leaps forward in the production of upholstered furniture; development was mostly centered around a constant growth in high quality furniture. Enterprises had no interest in developing new models, and preferred to copy designs from each other. However, from time to time, new work appeared with bentwood details, and the variety of arrangements increased for transforming armchairs and sofas to beds; foam rubber started to be applied more broadly, and the range of



The test equipment of "VPKTIM" company

furniture fittings increased. The only upholstery fabrics produced in the country were jacquard tapestry and woven rib cloth. Velvet, man-made and natural leather, along with synthetic fabrics were actively bought abroad. In the mid 1980s, a fresh flow of design for upholstered furniture was added by the efforts of the VPKTIM and the National Furniture Design Institute, as furniture outlines became more generous, and there were new decorative elements in the upholstery. However, implementation of these innovations was greatly hindered by a lack of materials, fabrics and accessories.

This was the baggage that the Soviet furniture sector was dragging with it towards the perestroika era in the early 1990s. By this time, during the rule of the USSR's first and last president, Mikhail Gorbachev, the industry was represented chiefly by large-scale furniture plants with a high concentration of production – components and furniture alike were produced here in the same place. Many plants even had their own board production lines. Thanks to the unification of furniture production, the manufacturing of furniture components, especially those made from metal, plastic or glass, was carried out in enormous quantities for virtually all the furniture plants at once. The plan acted as a guarantee of sale for any product manufactured.

It is not difficult to imagine how the country's transition to market relations was reflected in the overall scheme of interaction between the enterprises, with no advance preparation or personnel training, and by means of the "shock therapy" methods that were habitual for everyone during perestroika.

A DIFFICULT ADOLESCENCE

With the onset of perestroika, furniture production volumes started to fall catastrophically, as did the well-established technical and economic links break apart. Problems literally came

pouring in from all sides – there were disruptions in deliveries of component parts, enormous numbers of staff and low productivity, outdated equipment, a lack of funding, the need to offset costs independently, difficulties in organizing sales, etc. Unwieldy plants managed by "red directors" proved unsuited for survival in the new market conditions, and they stagnated and often even stopped production. The breakup of the Soviet Union in 1991 only reinforced the crisis that was taking shape, as many of the enterprises that had previously had linked technology were now outside of the Russian Federation. The fall in production that had started in 1990 had reached approximately 50% in 1997, the year before the financial crisis (in August 1998, the Russian government announced a default of its own bonds).

Prices and demand, however, grew unabated. The niche thus vacated began to be filled by the small cooperatives that had been newly re-established, and although it must be said that the quality of their products was unspeakably poor, people bought even them on the wave of excited demand. Small businesses preferred to work in the upholstered furniture segment of the market, as there was no need for such serious investment input, as compared with the production of cabinet furniture, for example. Because of this, the latter developed very listlessly indeed. However, alongside the growth in the welfare of citizens, businesses also grew confident about what tomorrow would bring. Entrepreneurs started to think seriously about future, to examine the experience of other countries, to acquire modern equipment, and to use new materials. The range of furniture offered by Russian producers expanded, and the quality improved.

Imported furniture also appeared on the market, introducing new designs and new forms. However, imported furniture was relatively pricey and therefore inaccessible for most of the population of the country. The market share of imported

Table 1

Furniture production volumes in the USSR in actual numbers of items

Furniture	1940	1950	1960	1970	1972
Tables, million	2.4	2.2	6.5	12.1	13
Chairs and armchairs, million	11	12	29	40	43
Dressers and sideboards, thousand	149	54	964	3092	3372
Wardrobes, thousand	658	834	4229	5701	6882
Sofas, couches, settees, ottomans, thousand	637	446	2683	1016	800
Furniture suites, thousand sets	-	-	30.9	275	372

furniture on the Russian market gradually increased, as did the consumer's demand for quality. In 1997 imported furniture had already made up about 50% of total consumption.

Large furniture producers, mostly relics from Soviet times, continued to stagnate. The main reason for the plants' lack of competitiveness was inefficient management, which was a particularly critical issue for huge, and therefore less flexible, facilities. This was particularly pertinent for the gigantic factories producing cabinet furniture that had incorporated chipboard production facilities. Many such plants completely froze production; some stopped manufacturing furniture, and left only the production of boards to be used by smaller furniture factories.

The disintegration of the national economy was accompanied by a sharp drop in chipboard production, as demand in the furniture sector also diminished. If in 1990 there were 97 chipboard production lines in operation in Russia, then by 1995 the total was down to 67, and by 1997 to only 52.

The crisis of August 1998 wrought its own changes on the Russian economy. The default was accompanied by a banking crisis, as the banks had been forced to hold a significant part of their funds in government bonds. In parallel with this, the ruble was devalued at headlong speed, and in the space of just one month, the exchange rate of the dollar to the ruble increased almost six-fold. Ruble savings depreciated, enormous queues of clients formed at the banks, but by no means were all able to regain their investments. The greatest losses were encumbered by the federal banks.

The crisis plunged the national economy into a two-year shock, and commercial activity on the market tumbled to a fraction of what it had been. The shares of many companies were greatly depreciated, and there were only a very few exporters who came through triumphantly, as they received their sales proceeds in hard currency. Most firms, however, cut costs in non-core areas such as marketing, advertising, research, etc. The utmost priority was cost minimization and sales. For this reason, the hardest-hit sector was B2B services. However, because of the substantial reduction in consumer spending capacity among the population, (although the demand did not go away, it simply became unaffordable), companies in the real

economy, including the furniture industry, also experienced very serious difficulties with sales.

One Russian expert summed up the state of the Russian furniture sector in early 1999: "[It] is like the condition of a patient during a widespread epidemic of some dreadful disease, who is able nevertheless to get out of bed and make a cup of tea without help, although he is wobbly on his legs. Many patients of this sort, previously rich and healthy, have already died, or are in the process of dying, but many survive without any doctors or medicine, and even have a bit of color in their cheeks."

Thus the short-term effects of the August 1998 default were catastrophic for the Russian economy. But in the long-term view, the devaluation of the ruble conversely had a remedial effect, mostly because imported goods became so expensive for consumers that they became unattainable, while items offered by Russian producers gained a serious advantage in terms of price. Against the background of total mistrust on the part of businesses towards the government, and permanent instability of the political and economic system of the country, the country's economy stagnated on all fronts during the first two years after the crisis, but all the same, companies in the real economy slowly but surely increased their turnovers. In 2000, for the first time, a growth in GDP was recorded. From this moment forward, the country made the transition to a phase of stable economic growth accompanied by a growth in welfare of the population, and a corresponding increase in demand that already commanded genuine purchasing capacity.

Devaluation of the ruble raised the price of imported furniture to dizzying heights, an effect that was facilitated by an increase in import duties. There was a gradual switchover from imported to Russian-produced furniture as production volumes increased domestically. Small and medium businesses got back in shape relatively swiftly after the crisis, understanding how to take full advantage of the crucial new competitive advantages of their products. But gradually, even the major producers started to come back to life, including plants producing cabinet furniture. The opinion exists that yesterday's importers, having earned tidy sums on the import of foreign furniture in the years before the crisis, also started to open their own production facilities, actively applying the knowledge and business contacts they acquired abroad.

A LONG AWAITED MATURITY

Starting from 2000, the Russian furniture industry, along with the rest of the economy, entered a phase of active growth, enabled on the one hand by the price advantages of domestically-produced products, and on the other hand by a growth in spending power on the part of the population. Annually until 2004, growth was measured at an increase of 11–15% of the preceding period. But this development occurred principally in the cheap furniture segment, being the most popular, where the price factor was of the utmost importance. The medium and upper price categories remained in the territory of imported furniture, which differed in its more interesting design and higher quality.

Recognizable brands began to establish themselves. However, development in the production of cabinet furniture lagged behind that of upholstered furniture: there were virtually no recognized brands here, with the exception of *Shatura*. Strong players in the upholstered furniture market established themselves much more quickly, such as *Sevzapmebel*, *8 Marta*, *Lenraumamebel*, and others.

The lowest price bracket was inaccessible for other countries, with the exception of Belarus, which gradually cornered almost a third of the Russian market in cheap furniture. Furthermore, a serious competition war arose between large and small producers, especially on the upholstered furniture market. Major producers offered higher quality and developed new models. The small producers simply copied the designs of the large factories, compensating for the lower quality with lower prices. Higher quality was gained through the use of better quality components and fittings, which were unavailable on the domestic market, and needed to be imported, which naturally was reflected in the price. One director of a major Petersburg factory lamented that a consumer purchases furniture to last 10–15 years, and therefore, having bought a poorer quality and cheaper product, is left dissatisfied on the one hand, and on the other hand is lost as a customer.

In addition to this, if there was a relative balance maintained up to 1998 between production and the use of chipboard, then the significant growth in furniture production since 2000, which resulted from favorable economic conditions and the sharp drop in imports, led to

a considerable shortfall between the supply and demand of board. The deficit of good-quality laminated chipboard was especially acute, and there was virtually no MDF produced in Russia whatsoever, as it all had to be imported.

As the standard of life in the country grew, and the purchasing power of the consumer grew with it, design and quality began to have more significance in the motivation for purchasing furniture, while the price also remained an important factor. This meant that producers had to make the transition to better quality imported components, with up to an 80% inclusion of such components in good-quality Russian furniture. The factory price therefore grew likewise, and this opened up the Russian market for relatively inexpensive furniture from abroad: Poland, Romania, CIS countries, China, etc. Russian firms proved even to be at a disadvantage as they had additional costs to pay for the import tax on imported components and fittings.

The production of cabinet furniture was now growing in leaps and bounds. Demand breeds supply, and the domestic production of chipboard, being the base raw material, began to develop actively, and this included coated board (laminated and corrugated). Over the next four years, almost half of the old Soviet chipboard factories that had ground to a halt in the 1990s, started to work again. As time went by, the larger among them effected total modernization and learnt how to produce panels on a par with Europe. Their products today compete successfully with inexpensive imports as they use the same binders, coating paper and decors. Incidentally, foreign corporations also produce in Russia. For example, the German company *Egger* opened a wood-based panel factory in Shuya, and the Swiss *Krono Group* celebrated the fifth anniversary of their plant in Sharya this year, which produces chipboard and MDF. As a result, in 2005 alone, the output of chipboard in Russia increased by 1 million m³, and laminated chipboard by 2 million m³. At the current time, output volumes of chipboard in Russia almost entirely cover the demands of the domestic furniture industry in the mass-produced segment of the market.

At the end of 2004, the Russian government finally heeded the entreaties from the furniture makers, and introduced a new customs regime for the import of furniture, which would take its price category into account. The customs duties for importing cheap furniture, costing less than

1.8 euro/kg, were increased substantially, i.e. in the segment in which the main bulk of Russian producers work. Thus, many importers of cheap furniture were squeezed out of the Russian market, and only Belarus and China remained of the significant foreign players.

In parallel with the increase in customs duties for finished furniture, the tariffs for components (furniture facades, edgings, and glass) and fittings were reduced from 20% to 10%. This was relevant because the only furniture components produced in Russia are forged metal parts and mirrors, and even those in no great quantity. As a result of this, domestic producers were able to use these imported components in large quantities, and this meant that they could enhance the quality of their products. The industry felt the effects of these changes as early as 2004, when the growth in furniture production was measured at 26% according to the official data from the Russian Federal Service of State Statistics (Rosstat); in 2005 the growth was 15%; and in 2006, 36%.

However, it was not only the fortunes of the market situation, the appearance of raw materials, and the introduction of more suitable customs duties that facilitated the success of Russian furniture producers. There is one more significant factor in the growth of furniture enterprises – and that is the arrival in the companies of educated managers who were able to reorganize their businesses in line with market conditions of heightened competition. A noticeable turning point in this context was in 2004. According to the experts, the domestic furniture market in the cheap segment was already chock-full of supply, and growth in the medium and upper segments was occurring primarily as a result of imports. Intensive growth of the market share for any one company was impossible without an aggressive market policy. In these conditions, large Russian producers started an active expansion into regions where they had not previously been represented, investing what for Russia are serious resources into promotion. In this way, the arrival of *Shatura* on the Northwestern market quite flabbergasted the regional furniture producers. Another example is the company *Sevzapmebel*, which spent about 1 million US dollars just on advertising in Russia for their new *Dominat* brand. It is interesting to note that *Dominat* furniture is positioned as an alternative to Italian furniture, which corresponds with the higher price class, not even in the medium range.

Another demonstration of good management was the development of retail sales networks – producer specific or through distributors. This innovation was marked by the appearance in major cities of huge furniture sales centers with sales floors of 20,000 m² and above. In 2005 the leading domestic manufacturers were selling their furniture through wholesalers across the whole country. Here they encountered competition from local producers who knew their own market better, could be more flexible, did not have to pay high transport costs, and simply copied the more successful models and sold them more cheaply. Wanting to escape the plagiarism of their own products and disadvantageous price competition, the major producers offered a more complex product on the market, both in terms of design and technology. This niche had previously been occupied entirely by companies from Italy, Spain and Germany. Because there had previously been no Russian traditions in this area, the companies turned to foreign design studios.

The old production facilities were no longer suitable for the new range (most of the machinery had been installed in the late 1940s), and so the companies embarked on total modernization. Credits were received to fund the major investments spent on acquiring modern automated production lines, as the companies had insufficient resources to finance their own development.

In this way, over the last few years, many Russian furniture brands have not only increased production volumes and sales of their products, expanded their range, and improved quality in the lowest price market segment, they have also successfully made inroads into the medium price category, which had formerly been out of their reach. Industry leaders today include *Shatura*, *Skhodnya-Mebel*, *Sevzapmebel*, *Miassmebel*, *Electrogorsk-mebel*, *Stolplit*, *Katyusha*, *Mebel Chernozemya*, *8 Marta*, *Angstrem*, *Pervaya Mebelnaya Fabrika*, *Ekomebel*, *Russkii Standart*, *Lotus*, *Lazurit*, *Evroprestizh*, etc.

Incidentally, the Russian furniture industry is remarkable in its relatively high level of self-organization, which is demonstrated by the large number of regional and national industry-specific associations. Two of the largest national organizations of this sort are the Association for the Russian Furniture and Woodworking Industry (www.amedoro.com) and Furniture-Makers of Russia (www.mebelclub.ru). The Confederation of

Table 2
Production of furniture in 2006

Federal district	Furniture produced in million rubles, without VAT		Growth Rate 2006/2005, %	Ratio of total production volume, %
	2006	2005 *		
Russian Federation	59214.1	49713.1 (45134.9)	119.1 (131.2)	100
Central	27830.0	21320.1 (20185.8)	130.5 (137.9)	47.0
Northwestern	4802.8	5168.7 (4667.3)	92.9 (102.9)	8.2
Southern	6399.2	5513.2 (4879.7)	116.1 (131.1)	10.8
Volga	11955.0	10079.4 (9010.7)	118.6 (132.6)	20.2
Ural	4448.0	3986.0 (3571.7)	111.6 (124.5)	7.5
Siberia	2457.0	2516.6 (1889.4)	97.6 (130.0)	4.1
Far-Eastern	1322.0	1129.0 (930.3)	117.1 (142.1)	2.2
Including cities:				
Moscow	7840.5	2914.3 (2895.9)	269 (270)	13.2
St Petersburg	863.8	1071.1 (1006.4)	80.6 (85.8)	1.5

* brackets indicate Rosstat live data

Source: Rosstat

Associations and Alliances in the Forestry, Pulp and Paper, Woodworking, and Furniture Sectors plays no small part in this. Of the regional industrial groupings some worth mentioning are the Union of Businesses and Workers in the Furniture and Woodworking Industry in the Northwest (www.mebnet.ru), the Siberian Woodworking and Furniture Industry Association (www.souzt.com), and the Association of Furniture Enterprises in the Southern Region.

Today the more advanced Russian furniture companies have attained an annual sales growth figure of 25-35%. However, some experts predict a reduction in consumer demand for furniture in the future, believing that the delayed demand which was stimulated earlier by the market dynamic has already been met. It is true, however, that recent statistics for the consumption of furniture do not yet justify these concerns.

RESULTS FROM RECENT YEARS

I. The Furniture Market

The figures for 2006 from the Russian Federal Service of State Statistics (Rosstat) indicate that domestic producers manufactured furniture to the value of 59,214.1 million rubles (at current prices, without VAT), or 119.1% of the level for 2005. Taking into account the retail price index on furniture (December 2006 in relation to December 2005), which was 106.84, the volume of furniture production in comparable prices to the level for 2005 was 111.5%.

It should be commented that in reports by Rosstat (the official body producing state statistics) there is a comparison of live data for 2006 with adjusted data for 2005. According to experts from the Association for the Russian Furniture and Woodworking Industry, this is

Table 3
Production of furniture in items actually produced, including those that are part of sets and suites

Range	Number, thousand items		Growth Rate%
	2006	2005 *	
Tables (including children's)	3978.20	3871.95 (3626.75)	102 (109.7)
Chairs (including children's)	4138.65	4115.92 (3840.58)	100.6 (107.8)
Armchairs	680.37	641.89 (595.83)	106.0 (114.2)
Cupboards	4395.70	4243.89 (3934.27)	103.6 (111.7)
Sofas, ottomans, couches	344.46	321.96 (270.50)	107 (127.3)
Sofa-beds	309.48	303.47 (276.21)	102 (112)
Wooden beds	933.97	993.14 (884.17)	94 (105.6)
Mattresses	1180.09	1089.44 (1059.58)	108.3 (111.4)

* brackets indicate Rosstat live data

Source: Rosstat

Table 4
Import of furniture to Russia for 2006

Commodity Code	Commodity	Import, thousand \$		Growth rate 2006/2005, %	Cost, \$/ kg	
		2006	2005		2006	2005
Distant countries						
9401	Seating furniture	285265.1	193840.4	147.2	3.7	3.4
9402	Medical furniture	36758.1	28095.9	130.8	16.5	17.9
9403	Other furniture and parts	606078.5	439998.2	137.7	3.23	3.06
<i>Subtotal:</i>		928101.7	661934.5	140.2	-	-
Belarus						
9401	Seating furniture	40690.3	13382.1	304.1	2.9	2.6
9403	Other furniture and parts	171938.6	107660.2	159.7	1.47	1.36
<i>Subtotal:</i>		212670.9	121042.3	175.7	-	-
<i>Import, total:</i>		1140772.6	783000	145.7	-	-

Source: Rosstat

inappropriate, in that the difference between adjusted and live data can be as great as 10%. If one compares live data with live data, the furniture production figures for 2006 come to 131.2% of the 2005 levels at current prices, or 122.8% of comparable ones (see Table 2).

Against a backdrop of high results from the furniture industry in Russia, the low figures for the Northwestern federal district, and St Petersburg in particular, are astonishing, as this is one of the most highly industrialized and socially developed regions in Russia, with a large number of timber companies, including furniture producers. This is the only region that has indicated a reduction in furniture production. This dynamic has been ongoing for the last few years. However, for the first quarter of 2007, the Northwest has indicated a positive dynamic for the first time: 128% as compared with the same period for 2006. It would appear that the results presented should be explained by a more strict reporting approach to the work of the furniture industry in the Northwest by the Service of State Statistics.

The success of the industry is confirmed by the growth in production volumes as expressed in

actual numbers of furniture items produced for all categories counted (see Table 3).

In parallel with the increase in domestic production, the import of furniture also rose substantially in 2006, both from more distant countries and from Belarus, and broke the one billion US dollar barrier for the first time. Imports as compared with 2005 levels stood at 145.7% (see Table 4). At the same time, there was a small increase in the cost of the main types of imported furniture.

The proportion of cheap furniture from the total volume imported, according to Rosstat figures, was no higher than 20%, which demonstrates the effectiveness of the customs duties that were introduced. For the most part, it is domestic producers who work in this sector of the Russian market. The overall market share held by imported furniture has remained almost unchanged.

In 2006 the import of furniture from China increased noticeably, and was up 181.9% compared to the 2005 total. China's market share

Table 5
Furniture exports from Russia for 2006

Commodity Code	Commodity	Export, thousand \$		Growth Rate 2006/2005, %	Price, \$/ kg	
		2006	2005		2006	2005
Distant countries						
9401	Seating furniture	32340.8	29555.2	109.4	2.29	2.13
9402	Medical furniture	178.7	243.2	73.5	26.2	18.4
9403	Other furniture and parts	117000.3	115344	101.4	1.1	1.07
<i>Subtotal:</i>		149519.8	145142.8	103.0	-	-
CIS countries						
9401	Seating furniture	33963.6	14947.7	227.2	4.6	3.18
9402	Medical furniture	2944.3	1966.0	149.8	11.1	7.05
9403	Other furniture and parts	99228.2	67594.4	146.0	1.9	1.68
<i>Subtotal:</i>		136136.1	84538.1	161.0	-	-
<i>Total:</i>		285655.9	229680.9	124.4	-	-

Source: Rosstat

Table 6

The furniture market in the Russian Federation 2001–2006

Indicator	Unit	2001	2002	2003	2004	2005	2006	2006 ⁴
		Furniture production volume	Million rubles	21600	26357.3	33711.3	40144.5	45134.9
	Million USD	739.2	839.4	1101.6	1393.2	1595.7	2181.9	4251.4
Growth rate of production to previous period	% ²	116.9	122	127.9	119.1	112.4	119.1	–
	% ³	113.2	113.6	115.1	126.4	114.5	136.7	–
Export ¹	Million rubles	2900	3384.9	3641.9	5754.4	6618.8	7736.6	7736.6
	Million USD	99.2	107.8	119	199.7	229.7	285.7	285.7
Import ¹ total	Million rubles	11334.4	14852.2	17260	21533.4	22147.9	30960.2	30960.2
	Million USD	387.9	473	564	747.3	783.0	1140.8	1140.8
From distant countries	Million rubles	6843.3	10668	12367	15545.7	18722.5	25187.7	25187.7
	Million USD	234.2	320.6	404.1	539.5	661.9	928.1	928.1
Sales volume on Russian market, total	Million rubles	48248.1	61120	75450	90009.4	103886	133546.5	225590
	Million USD	1651.2	1946.5	2465	3123.7	3672.7	4920.8	8312.4
From distant countries	Million rubles	14028.8	20636.9	25105	318665	38381.3	51131.0	51131.0
	Million USD	480.1	657.2	820	1105.9	1356.9	1884.0	1884.0
Import ratio, total	%	44.2	45.8	48.6	45	46	44.5	26.4
From distant countries	%	29.1	33.7	31	35.4	36.9	38.3	22.7

¹ according to Rosstat data, and adjusted for Belarus; ² calculated in rubles; ³ calculated in US dollars ⁴ evaluation, adjusted to include furniture produced outside state statistical data

Source: Association for the Russian Furniture and Woodworking Industry

increased to 7.6% (6.2% in 2005) of the total volume of furniture imported into Russia.

The export of Russian furniture increased in 2006 by 24%, that is to say it matches the overall growth in output of the furniture industry, although it significantly falls behind the growth rate of imports. Total export volumes were 285.7 million US dollars (7,753.6 million rubles), or 13.1% of the total production volume. The increase in export was primarily a result of consignments to CIS countries (161% as compared to 2005), while exports to distant countries increased by a mere 3% (see Table 5).

Let us summarize all that we have said so far. The sales volume of furniture on the Russian market is

calculated on the basis of official data from Rosstat concerning furniture production for 2006, at 133,546.5 million rubles or 4,920.8 million dollars. The import ratio was 44.5%, including a percentage from distant countries of 38.3% (in 2005 the respective figures were 46% and 36.9%). Taking into account the production of furniture that did not make it into the official Rosstat report, the volume of sales was 225,590 million rubles or 8,312.4 million dollars, of which 51,731.0 million rubles or 1,884.0 million dollars worth were from distant countries, which comes to 22.7% (Table 6).

The total volume of spending on furniture per capita in Russia for 2006 was 34 dollars, as opposed to 12 dollars in 2001, an increase by a factor of 2.8.

Furniture production and sales in Russia 2001–2006

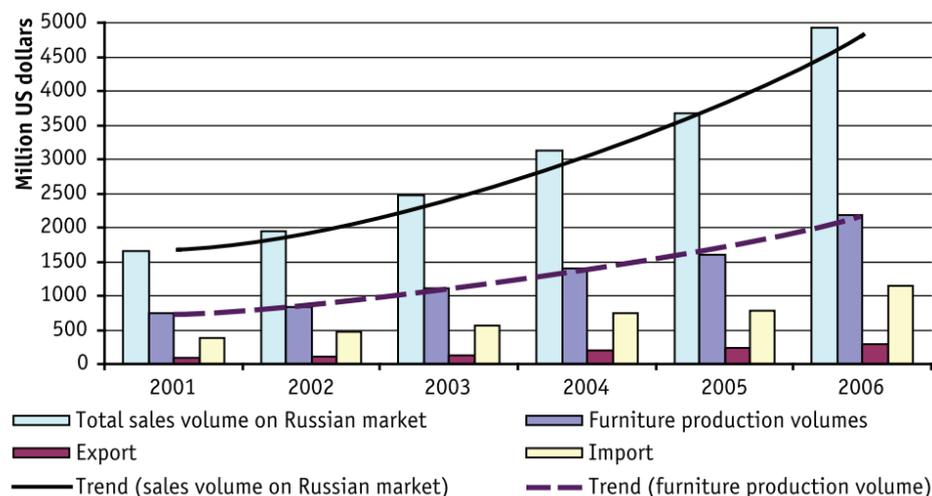


Table 7

Production of wood sheet products and decorative veneer in 2006

Type of production	Unit	Production volume		Growth rate 2006/2005,%
		2006	2005	
Particle board	m ³	4,593,764	3,929,885	116.9
Hard fiberboard	thousand m ³	372,989.3	375,423.2	99.4
Plywood	m ³	2,598,324	2,555,563	101.7
Decorative veneer	thousand m ³	10,758.7	12,328.5	87.3

Source: Rosstat, Association for the Russian Furniture and Woodworking Industry

II. Market in Raw Materials (wood-based boards and decorative veneer)

2006 was noteworthy in Russia for the introduction of major new facilities for the production of wood-based boards in the cities of Velikiy Novgorod, Shuya and Egoryevsk, which ensured the future substantial growth in production of this type of assembly material, so vital to the furniture industry. In total, 4,593,800 m³ of chipboard was processed, or 663,900 m³ more than in 2005 (see Table 7).

Because of the bad weather conditions in the 4th quarter of the year, which make deliveries of raw materials problematic, and which cause the board production facilities to stand idle, production of plywood in 2006 increased by only 1.7%, which is abnormally low as compared with previous years. Decorative veneer production continues to stagnate, with no sign of revival.

Looking at last year's results, we see an increase in imports of wood-based boards, which is mostly accounted for by the import of laminated and plastic-backed boards, and this in turn is a result of the growth in production volumes of furniture when the demand for wood-based boards is not satisfied by the available range. Imported boards total approximately 15% of the overall volume of domestically-produced boards, and this figure remains relatively stable.

In contrast to import, the main product for export is unfinished boards, which account for more than 75% of total export volumes. In all, 274,067 m³ of particle boards were exported, or, to put it another way, approximately 6% of the total produced in Russia. The customs value of units of exported boards remains considerably higher than for imported ones (see Table 8)

INSTEAD OF A CONCLUSION

This material presents a fairly general picture of the current situation and the future of the furniture sector in the Russian Federation. For a complete analysis, it would be desirable, at the very least, to study changes in the standard of living in the Russian regions, and also to take into account statistics for the construction of new housing across the country.

However, the data provided is more than sufficient to draw some preliminary conclusions about the level of appeal of the sector for developing partnerships, implementing investment and so forth.

Oleg PRUDNIKOV
We express our gratitude to the Association for the Russian Furniture and Woodworking Industry for the statistical material provided, and assistance in preparing this overview.

Table 8

Consumption of particle boards in Russia

Indicator	Unit	Year					
		2001	2002	2003	2004	2005	2006
Production volume	thous m ³	2545.0	2731.3	3203.7	3607.3	4046.4	4593.8
Load on production capacity	%	93.24	96.0	96.0	98	98	98
Total import	thous m ³	213.6	245.0	498.4	387.2	423.8	683.2
including							
• uncoated boards	thous m ³	16.0	22.9	84.8	68.1	73.6	76.9
• laminated boards	thous m ³	123.9	169.8	388.2	282.4	317.5	450.6
• coated with paper and plastic laminate	thous m ³	44.0	22.1	25.4	36.7	32.7	76.8
Export	thous m ³	155.2	146.6	200.0	207.0	228.1	274.1
Volume of boards consumed on Russian market, total:	thous m ³	2603.4	2829.7	3399.6	3787.5	4242.1	5002.9

Source: Rosstat, Association for the Russian Furniture and Woodworking Industry

ASSOCIATION FOR THE RUSSIAN FURNITURE AND WOODWORKING INDUSTRY

CELEBRATES ITS 10TH ANNIVERSARY



President of the
Association Valentin
Zverev

In understanding the necessity of consolidation efforts, four enterprises – "Shatura" (the Moscow region), "Sevzapmebel" (Saint Petersburg), "Svoboda" (Rybinsk) and "Bolshevik" (Novosibirsk) founded an Association for the Russian Furniture and Woodworking Industry in 1997. Since then difficulties in organizing matters with which the Association is concerned have disappeared.

Today, the Association unites in its numbers ninety of the largest enterprises and regional professional associations. Together, these enterprises represent 50% of the total turnover of furniture and chipboard, and 35% of plywood industries in Russia. In 2006 the enterprises of the Association paid more than 10 billion rubles in taxes.

The enterprises: members of the Association are located in more than 30 regions of Russia, from the Leningrad region in the west, up to the Irkutsk branch in the east, employing more than 100,000 workers.

The Association is a member of the Russian Chamber of Commerce and Industry, and the Russian Union of Industrialists and Entrepreneurs (RSPP). Since 1998, it has

represented Russia in the European Furniture Manufacturers Federation (UEA).

The Association carries out intensive and successful dialogues with the government of the Russian Federation, i. e. MinPromEnerg, the Ministry of Finance, and the Ministry of Economic Development and Trade, representing interests of the professional community and providing an acceptance of balanced decisions at the state level in the interests of all branches.

Our policies on import custom duty withholdings on ready furniture of average price groups, and decreases of import customs on equipment, materials and accessories not produced by the domestic industry, have been realized and maintained

by the government. Due to materials prepared by the Association, the government of the Russian Federation accepted 12 Regulations. As a result, a share of import furniture in the Russian market was stabilized and the production of domestic furniture in the period from 2000–2006 multiplied by three. Development of the furniture industry has served as a "locomotive" for the revival and accelerated development of the industry of wood panels. Large investments of foreign firms were obtained while the manufacturing of plates during the same period multiplied by two.

In the interests of its own members and the branch as a whole, the Association has carried out a complex of spade-works coinciding with Russia's entry into the WTO, and is thus a branch coordinator in the RSPP working group.

The Association participates in the solution, examination and support of National Special Technical Rules projects on the safety of wood panels and furniture to harmonize them with international ones.

The Association uses exhibitions as its major tool in promoting the production of its members in internal and external markets.

Hence, in 2006, the Association represented itself as a general partner of the exhibition company "MVK" at the "Euroexpomebel" exhibition, as well as that with the "Crocus Expo" company at the "Furniture Club" exhibition. The majority of the work was conducted along with the "RESTEC" exhibition company.

We have supported the organization of exhibitions in Novosibirsk, Samara and Yekaterinburg.

Thus, we have created a firm base for the output of our enterprises on these platforms, holding receptions in prestigious places and exhibition halls.

Branch Art – Technical Council on Furniture, which operates under the aegis of the Association, carries out and judges a competition of the best furniture products at each exhibition in selection rounds

of the national premium "Rossiyskay Kabriol."

The premium was founded by the Association together with the Union of Designers of Russia in 2004 for the enterprises and the organizations which have achieved the best results in the manufacturing of competitive furniture, the creation of industrial models, and collections of furniture of original design and development of conceptual directions of domestic furniture design. The handling of the premium in 2005 was led during the annual assembly in Saint-Petersburg. A summary of 2006 and a ceremony of the premium handling "Rossiyskay Kabriol" took place in May, 2007 during the "Euroexpomebel" exhibition.

The Association constantly monitors and analyzes the Russian furniture and wood panels markets, as well as reviews and forecasts development of the markets. Enterprise members of the Association are provided consultation help in the decision of essential problems.

We now consider it necessary to actualize developments in new directions, as it is important for members of the Association and its branch as a whole. These include:

- Working with the regional administrations of Russia to render priority support and assistance for enterprises of the Association in the given region.

- Putting obstacles in the way of irregular accessories and the products of furniture on the domestic market.

- Organization of the enterprises, first of all – members of the Association, a professional community preparation system – training and raising the skill level of industrial, technical and technological services employees of the enterprises.

Our professional community is constantly expanding due to the strong realization in new members of the necessity to unite efforts and the importance of informal open dialogue.

We are confident in the wide prospects of the Association and open to cooperation.



ACTUAL PROBLEMS OF DEVELOPMENT OF THE RUSSIAN PULP AND PAPER INDUSTRY

IMMEDIATE PROSPECTS

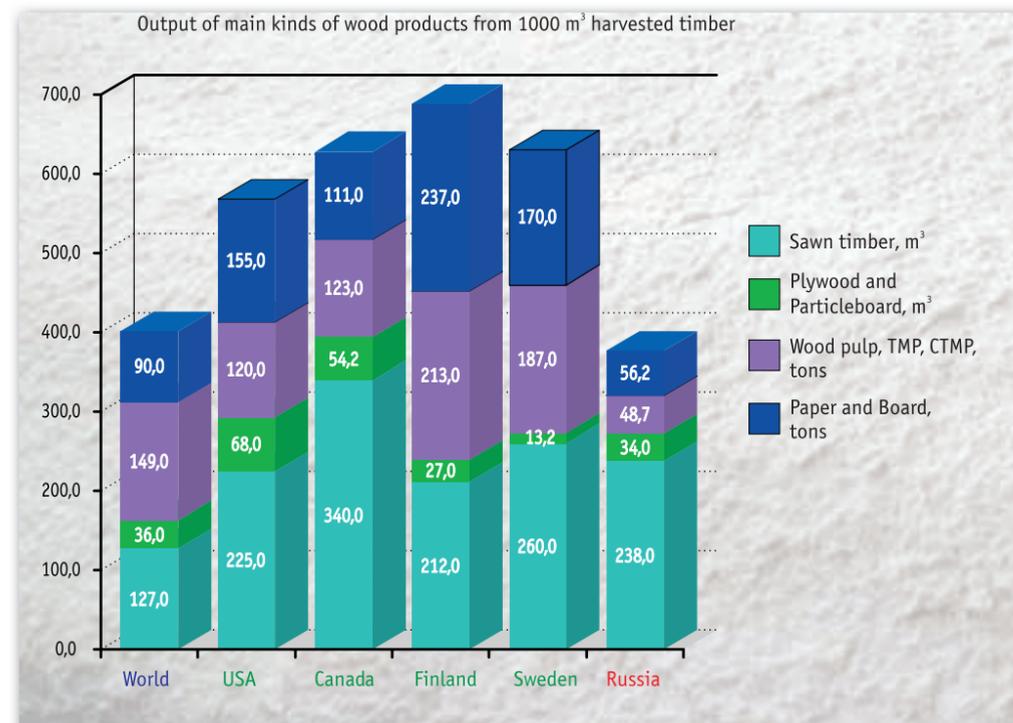
As we know, Russia is extremely rich in forests (there is almost a quarter of the world's wood reserves in our country), but the wood sector takes an unfairly modest place in the national economy and world trade.

Some parameters of the timber industry complex of Russia:

- Stock of wood – 82 bln m³
- Yield logging site – 560 mln m³
- Actually harvesting – 180 mln m³
- Production from 1 m³ of wood harvesting – \$70 (5 times less, than in countries with a developed wood industry)
- Share of Russian forestry in the national economy – 4 %
- Share of Russian products from wood in world trade – about 2 %

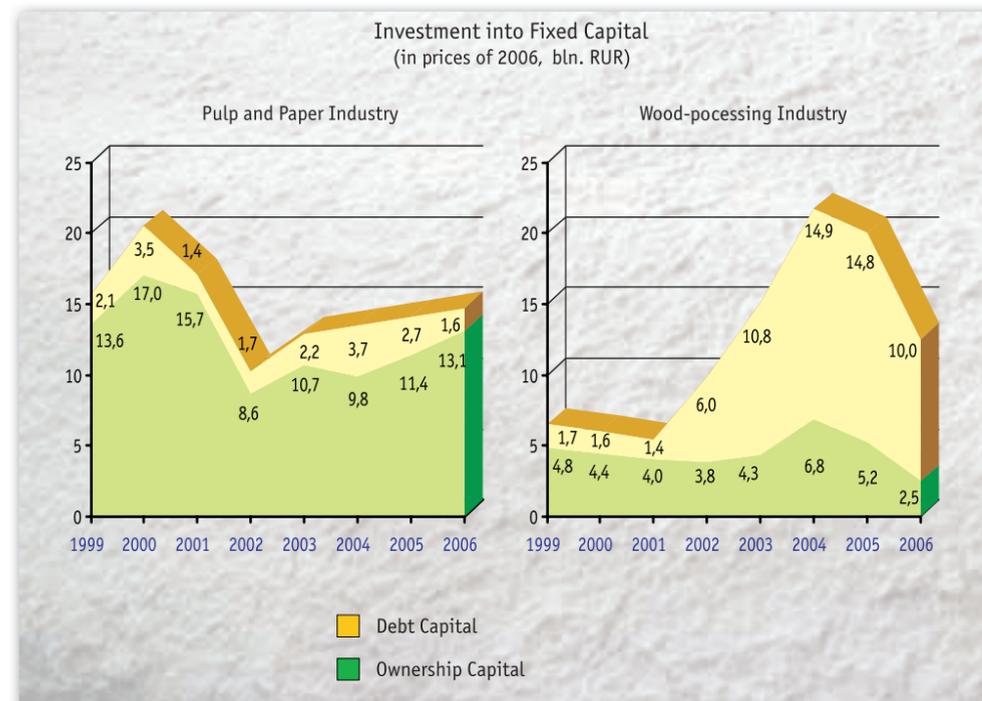
Russia's huge timber potential is used ineffectively. While the volumes of sawn timber, MDF and plywood are comparable with that of other countries, pulp and paper production falters by degrees.

Changes in the economic, ecological and social situations in the forest regions of Russia are possible only under the condition that the large-scale development of the Pulp & Paper Industry becomes the most effective sector. The presence in wood regions with significantly non-used stocks of wood, an industrial and social infrastructure, and potentially capacious commodity markets create the preconditions for



the intensive development of deep processing wood raw material, primarily on the basis of new integrated complexes. The manufacture rate of new highly profitable kinds of pulp-and-paper production, and the development of import replacement will give a new powerful impulse to growth volumes of timber cutting, and to the production of mechanical processing of wood.

Unfortunately, actual PPI development over the last years occurred due only to its own enterprise means and was directed, first of all, on efficiency conditions of equipment maintenance, and also (depending on investment opportunities of the enterprises) on an increase of production competition, reduction of operational expenses, the introduction of the best achieved technologies



(BAT), energy savings, and a reduction of ecological pressure on the environment.

Actions that have been carried out have allowed a number of the enterprises to retain competitiveness and to provide ecologically safe production. However, in connection with the full development of manufacturing growth capacity rates, they have faltered, and lag behind market growth demand in pulp and paper production.

The actual growth of consumption and its components are presented in the following table.

Manufacture of pulp within the last five years has remained at the same level (and the production of market pulp in 2006 decreased by 2.1% compared to 2005), while paper and cardboard reported an annual gain of 4.5–7.1%, both in the large integrated enterprises, and in the small enterprises using paper for recycling as raw material.

Consumption in the home market grew above the GDP index. The increase in the actual income of the population (an annual growth of 10-18 % according to the Russian Statistical Service) has predetermined the increase in consumption of pulp and paper production and, primarily, in high-quality grades of

printing, writing, coated and laminated papers, cardboard and tissue goods. Because of shortage capacities in Russia's financial progress, demand was satisfied due to sharply increased imports. These products account for more than 70% of total import volume.

2006 was remarkable also because for the first time the balance of foreign trade of pulp and paper products became negative. From 2000–2006, export volumes increased by 1.5 times (from 1.4 to 2.2 bln USD), though imports also increased by 3.1 times (from 0.75 to 2.3 bln USD). The main exports are low-cost goods – market pulp, newspaper, Kraft-paper and Kraft-liner, i.e. raw materials for further processing (about 80% of the total export volume).

Various sources have predicted that rates of growth volume in the consumption of pulp and paper products within the Russian market should exceed worldwide indices and increase about 6% per year. It is also expected that export volumes of pulp and paper products from 2007–2015 will increase 1.5–2.5% per year. This will only allow for the existing position in the world market to be held.

It would seem that all of the preconditions for the development of the pulp and paper industry are available: a roughly developing

Production of the main kinds of pulp and paper products

Products	2006, Thous.t	2005 Thous.t	2006	
			+ / -, Thous.t	%
Liquid pulp	6,005.0	6,001.2	+3.8	100.1
Market pulp	2,379.5	2,429.4	-49.9	97.9
Paper and Board, in total	7,450.9	7,125.6	+325.3	104.6
Paper, in total	4,004.0	4,001.0	+2.9	100.1
Newspaper	1,992.7	1,983.8	+8.9	100.4
Offset paper	466.2	451.5	+14.7	103.2
Writing and notebook paper	69.5	67.3	+2.2	103.3
Paperboard, in total	3,446.9	3,124.6	+322.3	110.3
Packaging board	2,497.9	2,279.2	+218.7	109.6
Sacks from kraft-paper, Thous.items	563,820.7	543,244.3	+20,576.4	103.8

market, rather cheap material resources (water, energy, fuel, raw material), manpower, etc. But over the last years, not only have no new mills been constructed, the implementation of facilities on existing platforms have also been insignificant. There have been no investments into the sector. At the same time, without PPI development, it is impossible to achieve complex wood processing, an escalation in the volumes of timber cutting, or increased income from the wood sector in the national economy.

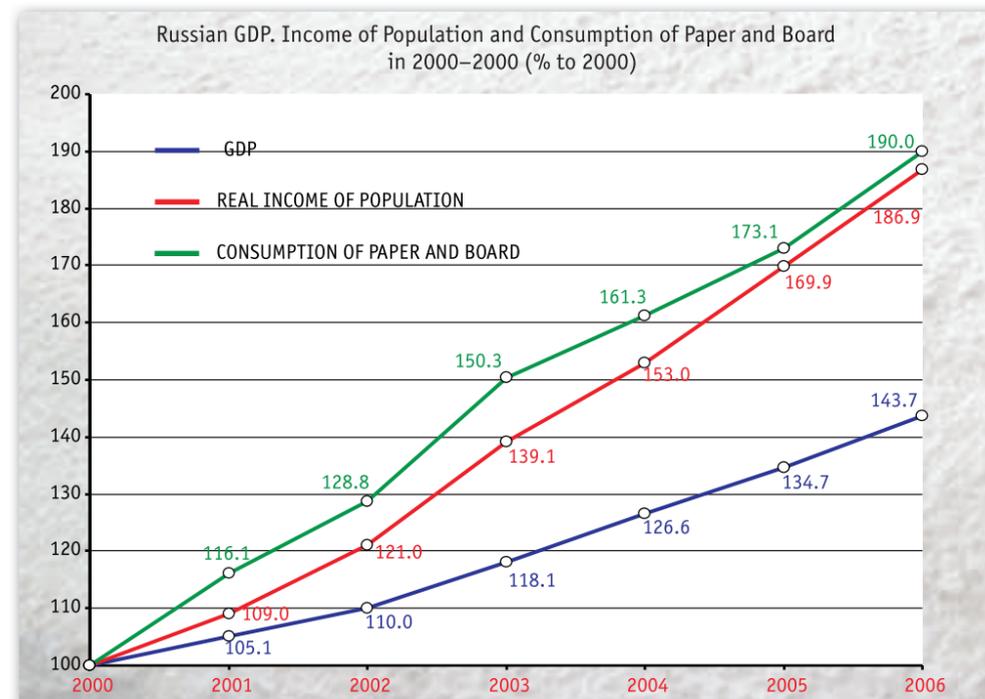
How will PPI develop by 2015? RAO BUMPROM attempted to estimate the situation on the basis of the article "Concept of Development

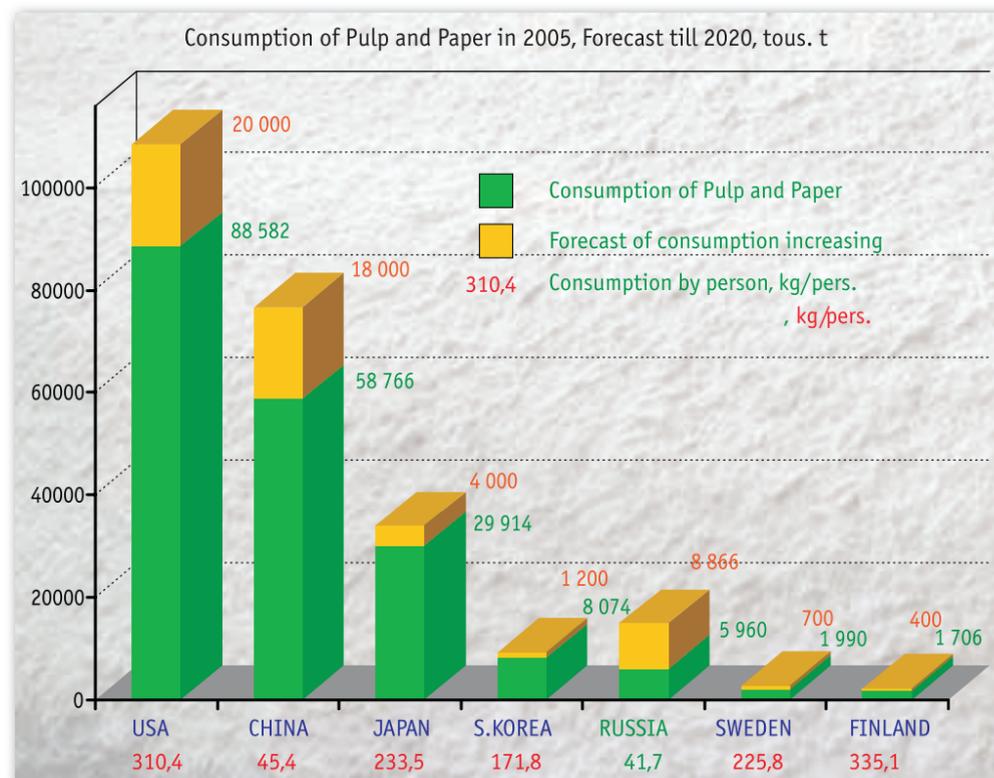
of Russia's Pulp and Paper Industry by 2015" (author – OJSC GIPROBUM), and data from the Ministry of Industry and Energy.

Any construction to facilitate pulp and paper enterprises on deep processing wood has yet to begin in 2007. To create such capacities, a minimum of five years are necessary. It is clear now that capacities on deep processing wood will not be included in restrictive export taxes by 2011. Therefore, the imbalance between the manufacture and consumption of forest products will increase, and a stimulating effect to correct situation will not be provided by the government.

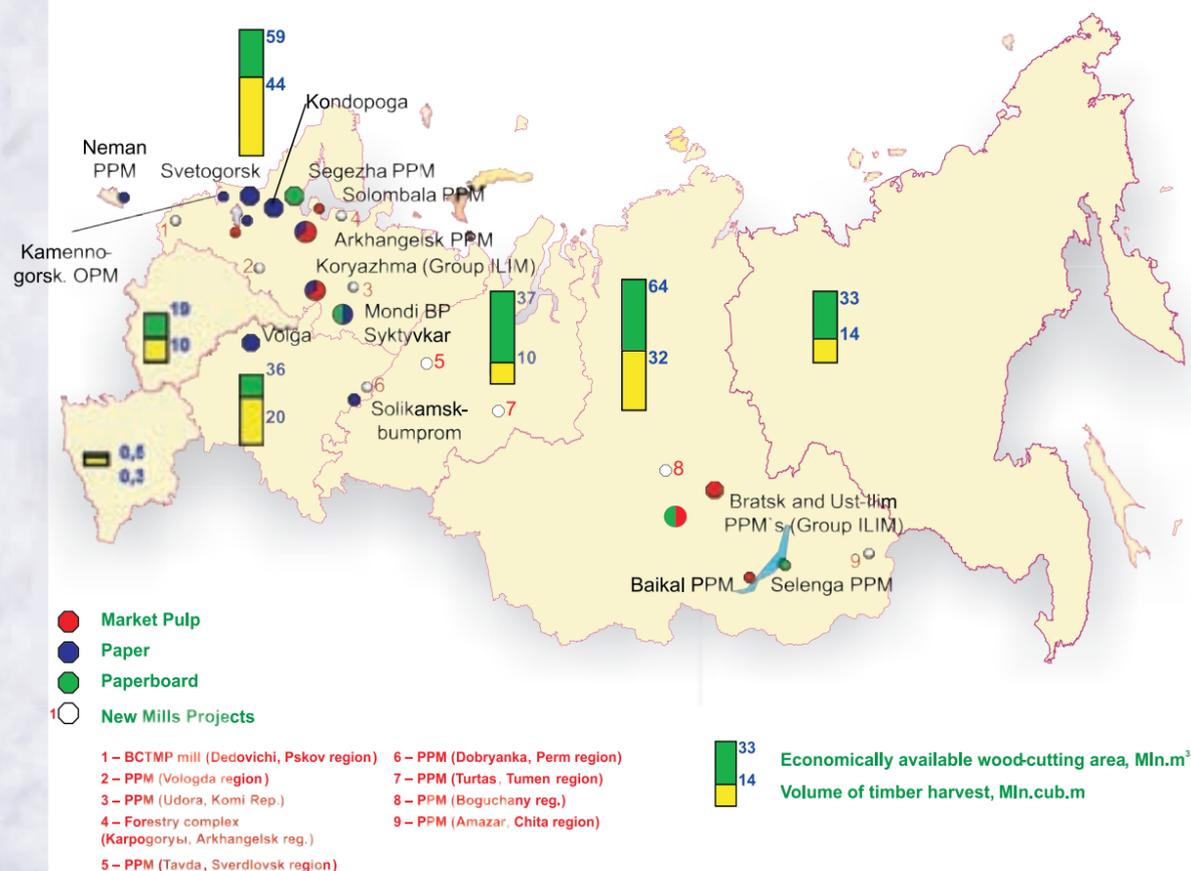
Production and consumption of the main pulp and paper products in Russia, tsous. tons

PRODUCTS	2000	2001	2002	2003	2004	2005	2006	
PRODUCTION	MARKET PULP	2,036.5	2,163.1	2,291.3	2,311.4	2,409.5	2,379.4	
	PAPER	3,326.0	3,442.3	3,551.8	3,681.6	3,903.1	4,001.0	4,004.0
	PAPERBOARD	1,985.5	2,183.1	2,427.8	2,695.5	2,927.1	3,124.6	3,446.9
	PAPER+PAPERBOARD	5,311.5	5,625.4	5,979.6	6,377.1	6,830.2	7,125.6	7,450.9
	BOARD* (W/O PACKAGING BOARD)	1,655.0	1,905.0	2,150.0	2,480.0	2,691.0	2,759.0	3,000.0
	PAPER+BOARD*	4,981.0	5,347.3	5,701.8	6,161.6	6,594.1	6,760.0	7,004.0
	% TO PREV.YEAR		107.4	106.6	108.1	107.0	102.5	103.6
EXPORT	MARKET PULP	1,608.0	1,763.0	1,866.0	1,878.0	1,831.0	1,749.0	1,895.0
	PAPER	1,491.0	1,607.0	1,553.0	1,573.0	1,760.0	1,750.0	1,662.0
	PAPERBOARD	851.0	841.0	865.0	863.0	915.0	904.0	890.0
	PAPER+PAPERBOARD	2,342.0	2,448.0	2,418.0	2,436.0	2,675.0	2,654.0	2,552.0
	% TO PREV.YEAR		104.5	98.8	100.7	109.8	99.2	96.2
IMPORT	MARKET PULP	52.0	44.0	47.0	47.0	21.0	21.0	40.0
	PAPER	566.0	833.0	866.0	1,114.0	1,294.0	1,490.0	1,668.0
	PAPERBOARD	237.0	265.0	285.0	335.0	338.0	364.0	423.0
	PAPER+PAPERBOARD	803.0	1,098.0	1,151.0	1,449.0	1,632.0	1,854.0	2,091.0
	% TO PREV.YEAR		136.7	104.8	125.9	112.6	113.6	112.8
CONSUMPTION	MARKET PULP	480.5	444.1	472.3	480.4	599.5	701.4	524.4
	PAPER	2,401.0	2,668.3	2,864.8	3,222.6	3,437.1	3,741.0	4,010.0
	BOARD* (W/O PACKAGING BOARD)	1,041.0	1,329.0	1,570.0	1,952.0	2,114.0	2,219.0	2,533.0
	PAPER+BOARD*	3,442.0	3,997.3	4,434.8	5,174.6	5,551.1	5,960.0	6,543.0
	% TO PREV.YEAR		116.1	110.9	116.7	107.3	107.4	109.8
INDEX GDP, % TO PREV.YEAR		110.0	105.1	104.7	107.3	107.2	106.4	106.7
POPULATION, mln.pers	146.9	146.3	145.6	145.0	144.2	143.4	142.8	
CONSUMPTION by person, kg/pers.	23.4	27.3	30.4	35.9	38.5	41.6	45.8	





Modernizing and planned to build Pulp and Paper Enterprises



There is a need for significant volumes of capital investments in PPI with greater recovery times to create an attractive investment climate.

Though the Forest Code has been adopted and its regulations have been stated, the priority list of investment projects in the field of wood development fitting the proposed criteria has been announced, and forest plot rental rights for potential investors at a 50% cost of those not on the list have been guaranteed without auction, this is still not enough to create an attractive investment climate.

In our opinion, the government could go on to participate directly in the realization of new pulp and paper mill projects by creating an infrastructure in construction areas, and providing full or partial tax exemptions on profit, property and the technological equipment for the development period of new capacities

It would allow for not only the reduction of recovery times for capital investments, but also provide lower political risks for investors.

The economic benefits in using irrevocably lost wood resources, certainly, will exceed possible financial losses from temporary concessions to the investor.

And if such procedures are not carried out, it is almost certain that Russia will increase its import volumes of coated and laminated paper, board, tissue and other paper goods from abroad.

Elements of globalization in Russia's pulp and paper industry have positively influenced, on the large, Russian enterprises (OJSC SVETOGORSK, MONDI BUSINESS PAPER SYKTYVKAR PPM, etc.). Management reorganization in these mills has been implemented, as has the structure of the enterprises been modernized. Such has allowed to effectively reduce the number of personnel without decreasing production volumes. Investments have allowed the use of BAT successfully, and to raise production quality up to the European level.

However this process only regards large and rather new enterprises.

The forthcoming entrance of Russia into WTO will demand from the other 80% of

the older and smaller enterprises to go through the same technical and management reorganization. It is obvious that it will be extremely hard without the direct support of the government in the form of tax and investment privileges.

An important condition for sharp production growth volumes of practically all kinds of paper and cardboard is the use of a secondary fiber. Ten years ago, 130 mln tons of recycling fiber was used annually in PPI all over the world, but in 2007, the demand of waste paper reached 200 mln tons. One of the main reasons for the unprecedented growth of PPI in China has been the number of facilities implemented for processing and recycling paper. By the end of this year, nearly 20 papermaking facilities with capacities of not less than 100 thous. tons each will be operating. The import volume of paper for recycling to China from Europe and America will reach 22 mln tons by the end of the year. To compare – today in Russia there are only 27 enterprises producing paper and cardboard from recycling fibers, and only six of those mills are less than 40 years old.

Unfortunately, the national structure of gathering paper for recycling has been destroyed in Russia, and this major resource is used extremely poorly.

There are a lot of problems in the Russian pulp and paper industry. But this year has shown that the government is interested in developing this sector through an efficient and professional exploration in the renewal of natural resources, i.e. forests. What we have to do now is wait for results from 2007 to begin coming in – from new export taxes on round wood, from the implementation of the new rules of play in the new Forest Code, from efforts of state institutions to develop an acceptable and viable forest policy, and to attract the potential domestic and foreign investors into the pulp and paper industry. We truly hope that Russian forests and the forestry sector have good prospectives.

Vladimir CHUIKO,
 Chairman of the Board,
 First Vice-President of RAO "Bumprom"



MONDI BUSINESS PAPER SYKTYVKAR

Mondi Business Paper Syktyvkar was honoured with a number of awards for its commitment to forestry and sustainable development over the last few years. In particular, were commended for our mill's achievements in preserving pristine forests, silviculture, and forest certification.

In 2002, Mondi Business Paper Syktyvkar initiated the process of certifying forests according to the internationally recognised Forest Stewardship Council (FSC) standards. This entails a third-party assessment of forest management practices, and measures compliance with a range of social, economic, and environmental standards. This process fosters sustainable forest management and leads to a greater recognition of the importance of implementing practices that are not only economically viable and environmentally responsible, but also socially beneficial to the inhabitants of forest regions.

¹ A state forestry management unit.

² Chain of custody certification traces all the changes of custodianship of forest products during the harvesting, transportation, processing, and distribution chain from the forest to the end-user and provides a guarantee about the production of FSC-certified products.

For this project, Mondi Business Paper Syktyvkar partnered with the State Forest Service and the Silver Taiga Foundation (a local NGO). MBP Syktyvkar has provided both financial support and highly skilled personnel for the certification of the Koigorodskiy Leskhoz¹ (613,301 ha), and the Sysolskiy Leskhoz (561,855 ha), both of which contain some of MBP Syktyvkar's leased areas.

In March 2006, after two years of preparation, the goal of the project (forest management certification) was achieved. This process highlighted the importance of long-term forestry planning, identification of the environmental impacts of forestry, protection of rare and endangered species, conservation of pristine forests, and the safeguarding of local communities.

As a next step, MBP SY will continue to work with stakeholders to certify the remaining 1.2

million hectares of its leased areas. Additionally, in 2007 the mill and its subsidiaries are expected to receive FSC Chain-of-Custody² certification. The target is that, by the end of 2009, all wood delivered to the mill will be FSC certified. A total of 0.2 million euros has been spent on this project since 2004. For the next phase of certification, which will continue throughout 2007–2009, it is estimated that another 0.3 million euros will be spent.

MBP SY sources a significant amount of raw material from the Udorskiy region. However, this is an area with large massifs of pristine forests, and the danger of logging in an area of such high conservational value is high. In 2003, MBP SY partnered with the environmental NGO Silver Taiga and launched a multi-stakeholder process for the identification and classification of pristine forests in the Udorskiy District of the Komi Republic. The idea was to work together with stakeholders and interested parties to develop a methodology whereby the pristine forests would be protected, while at the same time allowing logging operations, the state forest service, and rural communities to derive social and economic benefits from the forest. In a process that is still ongoing, stakeholders representing the logging industry, the state forest service, local and indigenous communities, local authorities, and environmental NGO's have worked together

to classify the forest. This unique process was run as a pilot in the Udorskiy district, but has the potential to be extended to other parts of the Komi Republic where there are similar large tracts of pristine forests.

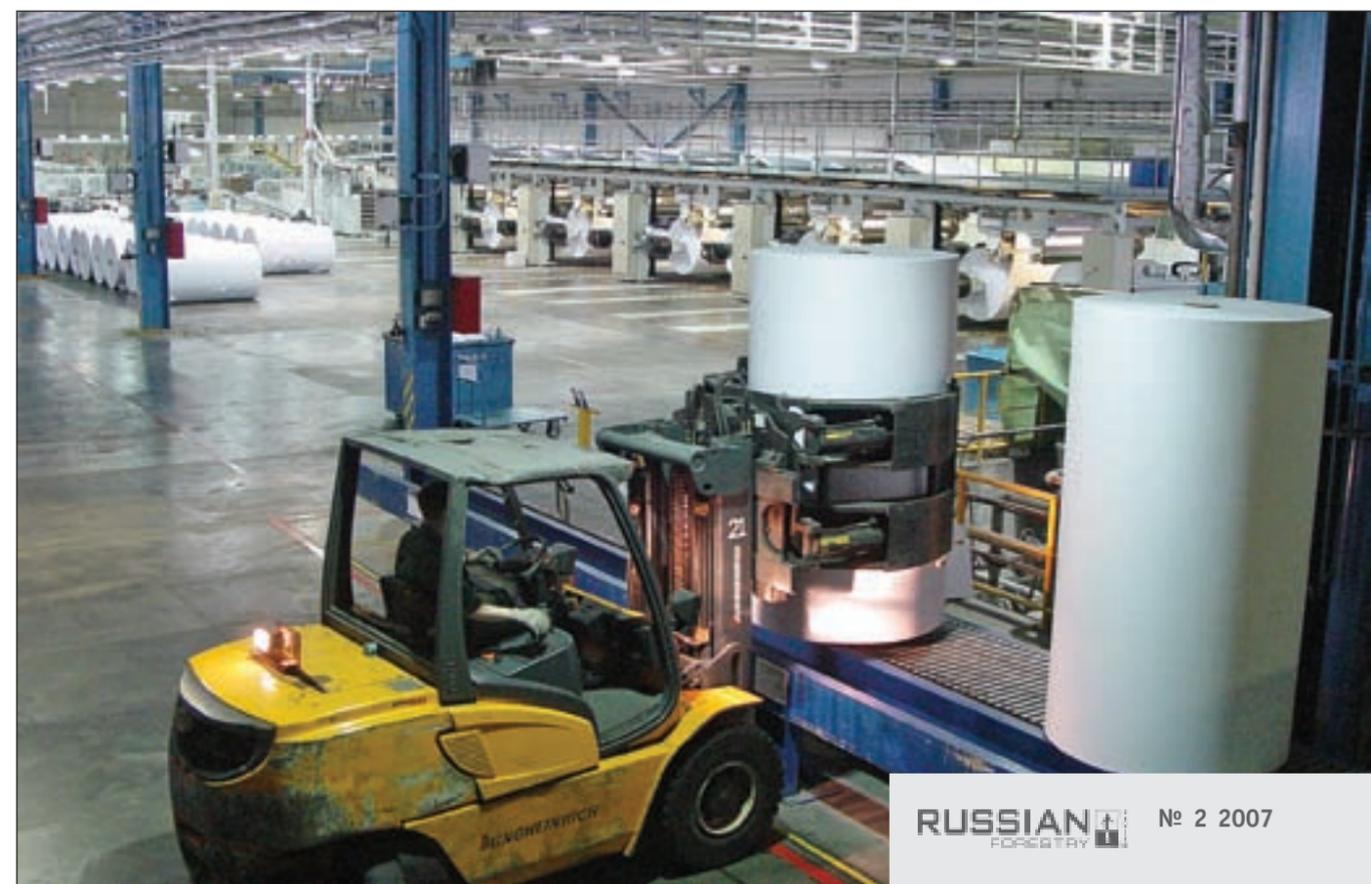
Additionally, MBPSY expenditure on silviculture and fire-fighting has been increased by approximately twofold each year since 2004 and this trend is expected to continue into 2007. Thus costs for reforestation (e.g. soil preparation, planting and seeding, support of forest regeneration), fire prevention (e.g. construction supply depot, rest areas, fire barriers), forest valuation, and inventory made up over 1 million euros in 2006.

In August 2006, a new company called "Novy Les" was established by Mondi Business Paper Syktyvkar in the Sysolskiy district of the Komi Republic. Annually, it is supposed to grow one million seedlings for reforestation in a modern containerized forest nursery, and will provide services to the mill and subsidiary forest operations.

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RUSSIAN ASSOCIATION OF PULP AND PAPER ORGANIZATIONS AND ENTERPRISES

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The Russian Association of Pulp and Paper Organizations and Enterprises (RAO "Bumprom") is a non-commercial organization founded in 1999 by the enterprises of this branch of the industry. The Association unites on the voluntary basis of companies concerned with pulp and paper production and sales, as well as branch project and research institutes. The Association's activity is based on the principles of self-regulation.

- The Strategic goal of the Association is the harmonization of relations between the branch businesses with the authorities and with society.
- Being a non-commercial organization, the Association protects and moves on industry concerns.
- RAO "Bumprom" by right regards itself as the successor to The Union of Russian Printing Paper Producers (founded in 1901) that "familiarized society with the state of affairs within the branch and industry economics."

RAO "Bumprom" is a member of the Trade-Economics Council of the Ministry of Economic Development and Trade of the Russian Federation, the Trade and Industry Chamber of the Russian Federation, the Coordination Council of Russian Employers Union, the All-Russian Social and Political Organization – "Business Russia", the All-Russian Scientific

and Technical Union "Bumdvreprom", the Coordination Council regarding the interaction of Federal Agency of Forestry at the Ministry of Natural Resources of the Russian Federation, and Russian timber industry enterprises.

Under the concluded agreement the Association interacts with the Ministry of Natural Resources of the Russian Federation, the Russian Timber Merchants Union, the Interregional Polygraph Association, the Paper Wholesalers Community, the Periodical Press Publishers Guild, the State Scientific Center of Timber Industry Complex, the RosOboi Association, the Moscow Association of Paper Industry Workers, and other organizations.

MISSION OF THE ASSOCIATION

To provide member companies support based on irrefragable activity in the spheres that are of key value for companies to function successfully, as well as in the spheres where Association activity is more effective than individual activity of the said companies.

POLICY OF THE ASSOCIATION

To undertake such initiatives in legislative, regulative, administrative and trade spheres that would result in beneficial effect of the branch work.

TASK OF THE ASSOCIATION

To become a universally recognized intermediary between the authorities and businesses to share information and ideas, support important initiatives, promote products and to perform cooperative work on programs useful for the branch and for the society.

- coordination of the activity of Association members aimed at dynamic development of the pulp and paper industry, market penetration and obtaining stable position on domestic and foreign markets
- analysis and identification of branch problems, as well as preparation of legislative and rule-making proposals for the legislative and executive authorities
- prognosis and development rating of the pulp and paper industry, its scientific and technical potential as well as goods and services market
- extension work on the foreign-economic activity of Association members, perfection of export-import policies, development of cooperative work with foreign investors and financial structures
- summarizing of combined practices of Association members in determining ecological problems, problems of rational forestry management, financing of scientific research within the branch
- methodical informing of Association members, coordination of the regulations database of the branch, of its conformity with international standards, of facultative certification
- extension work on collaboration of Association members with international organizations and unions on participation in international trade fairs, exhibitions, conferences, seminars and symposia;

- personnel training and raising level of skill of specialists, assistance in the sphere of labor and social relations
- harmonization of inter-corporation relations and solving the problems in the social block of the branch.

In the beginning of 2004 RAO "Bumprom" had developed the "Concept of Development of Pulp and Paper Industry until 2015" doctrine.

According to the Concept, appreciable increase in volume of output and of competitiveness of P&P enterprises may be reached only by the sum of two factors – internal resources of P&P enterprises, and stimulating of the branch by corrections in customs, tax, tariff and investment policies. In this case P&P industry may multiply its output by 2.2, increase exports by 1.4, increase efficiency by 2.2, and reduce the import of pulp and paper goods by 36%.

Leitmotif of the Concept: The Russian P&P Industry mainly requires not budgetary funds, but new flexible and liberal regulations.

Therefore RAO "Bumprom" sees its main role in systematic constructive dialog with the state to form and legally consolidate such regulations that might stimulate development of the timber industry, and thus to contribute to Russian P&P business and enterprises.

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BIOENERGY POSSIBILITIES RUSSIA'S NORTHWEST

We published detailed information about the conditions and outlooks of development of the bioenergy sphere in Russia in the previous issue of Russian Forestry Review (№ 1, 2006). This article will cover just some main data in general and more detailed information will be presented upon the bioenergy condition in one of the most industrially developed regions of Russia – in the Northwest.

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POWER ENGINEERING IN RUSSIA

Russia owns the largest natural gas, the second largest coal and the third largest oil reserves in the world. This country is the third largest energy user and the largest producer of oil and gas in the world. One of the biggest forest regions in the European part of Russia is in the Northwest, which is also interesting for foreign business because of the long border with the European Union.

The export of oil and gas plays a major role in the economic development for all of Russia. It is also important for the Northwest, but this region has other possibilities for big biomass resources. Unfortunately, the wood harvesting and processing industry accounts for only 4.4% of industrial production in all of Russia; it is greater in the Northwest, but still it is not enough, because Russia owns 23% of the world's forest resources. As a result, biomass represents only 1% of the total energy consumption, including residential use. Anyhow, hydro power represents about 18% of Russia's electricity generation. Russia needs three times more energy to produce one unit of GDP compared to European countries on average. This indicates very poor energy efficiency and poor conditions of the entire energy infrastructure as well. Simultaneously, the costs of fossil fuels and electricity are still heavily subsidized and are clearly lower than those in other regions; for example, in the EU. These basic figures provide an idea on why the utilization of other renew-

able energy sources than hydro power, and especially biomass, play a minor role in the Russian energy system.

Presently in Russia, the main use of renewable energy concentrates on solving the shortage of energy in remote districts. The mechanical and chemical forest industry is a remarkable producer and user of bioenergy, but biomass and wood wastes still represent only 20–30% of their energy needs. As the first step, sawmills are increasing energy independency by investing in bark and sawdust burning plants that utilize modern technology. The Ministry of Fuel and Energy of the Russian Federation estimates that the commercial potential for renewable energy use in Russia is over 200 Mtoe, which is about 25% of annual energy consumption. According to the same estimate, biomass energy potential is only about 25 Mtoe. This figure sounds low compared to the amount of forests and investment potential in the forest industry. The International Energy Agency (IEA) sees remarkable potential for additional biomass in CHP production due to the fact that all larger and smaller cities have district heating networks. The main fuels of municipal CHP plants are presently gas, coal and/or oil. The use of biomass, peat or different wastes is very limited. As the first signs show, there seems to be an interest in replacing coal or oil in smaller heating plants with wood or peat. Some less than 10 MW plants have already been built. Wood pellet production has started at the beginning of the 2000s in Russia, driven by fast growing export markets, especially in the EU.

THE FEDERAL REGION OF NORTHWEST RUSSIA

Generic Description

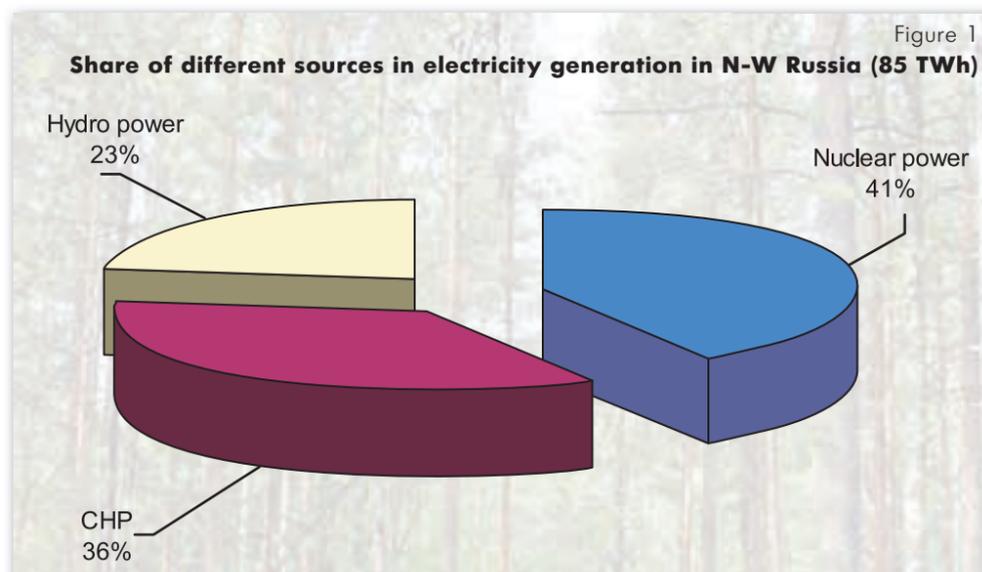
Russia's Northwest has 60% of the forests in European Russia and it is one of the leading woodworking regions. Because of this there is a lot of biomass and wood waste.

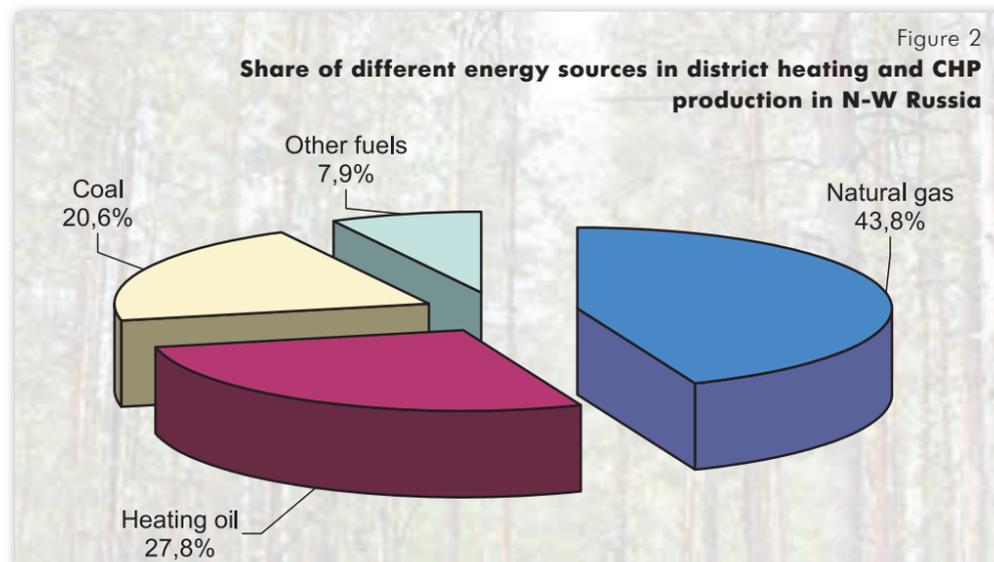
The Federal Region of the Northwest (N-W) of Russia consists of the city of St. Petersburg, the Republics of Karelia and Komi, and the regions (oblasts) of Leningrad, Arkhangelsk, Kaliningrad, Murmansk, Nenetsk, Novgorod, Pskov and Vologda. The region is the 4th largest of all the federal regions; it has 15 million inhabitants and represents 10% of the land area of Russia. It has a 2,200 km long joint border with the EU, most of which with Finland. The city of St. Petersburg, with 4.6 million inhabitants, is the administrative centre of N-W Russia.

N-W Russia has 9 regional electricity generation companies that are all subsidiaries of the national company RAO EES. Electricity generation of the region is about 85 TWh with a generation capacity of over 15,000 MW. The share of different energy sources in electricity generation can be seen in Figure 1.

The total length of electricity transmission and distribution lines is about 25,500 km. A special feature in the transmission system is the fact that there is no connection between the Western and Eastern network

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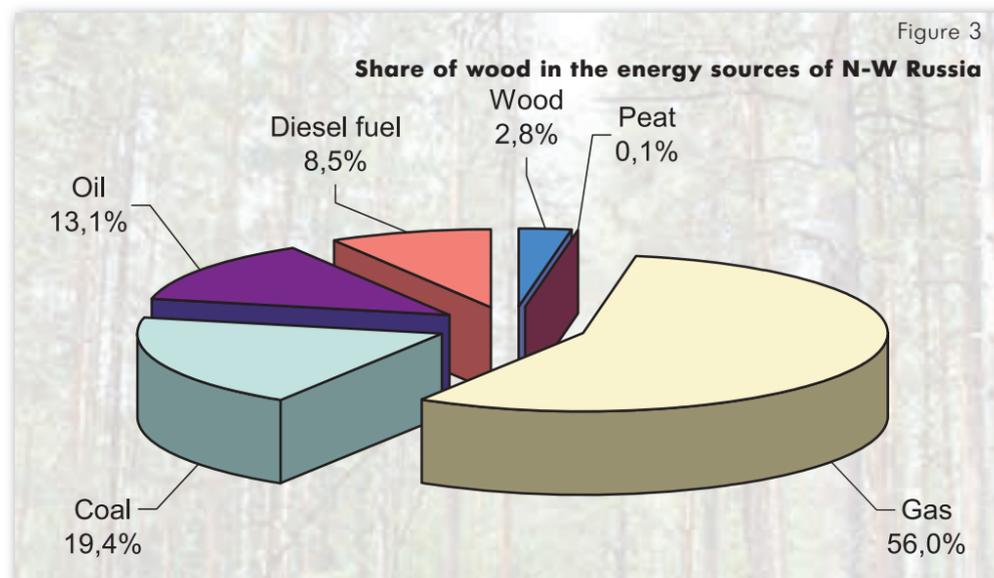




of N-W Russia. The electricity generation and distribution systems are old, plants are inefficient, and transmission losses are remarkable, etc. Thus, there is urgent need for refurbishment and new investments throughout the whole system.

Most cities, towns and even smaller villages have a district heating network. Cities and bigger towns have CHP plants and smaller ones only heat production. Smaller municipal energy companies play a key role in heat generation by producing over 70% of the district heat. The heat losses in the district heating system are huge, over 40% of the heat generated. The heat distribution network is in very poor condition and needs refurbishment and even replacement with new pipe lines. The poor condition of the

system leads to long breaks in heat delivery and causes damages in houses and industries. Heat production and distribution is heavily subsidized by local authorities which causes a low level of investments, both in the system and in energy conservation. Many customers do not pay for the heat due to lack of income or other reasons. There is a clear need to build new, smaller district heating networks and smaller heating plants, and later on join the smaller systems to a larger one as it has been done in Finland. These plants could use biomass as fuel and simultaneously activate the local economy. In any case, the potential of biomass is limited to remote areas due to the dominating role of natural gas (Figure 2). The decision to utilize the gas resources of the Barents Sea and build a new pipe line through



N-W Russia will probably limit further biomass energy potential in the future.

WOOD BIOENERGY RESOURCES AND POTENTIAL: THE CURRENT SITUATION

The total forest area of N-W Russia is 118 million hectares. The total volume of raw wood is over 14,000 m³, with an annual growth of about 130 million m³. 60% of Russian European Forests are in the Northwest. This accounts for 17% of all Russian forests. The volume of annual cut is over 100 million m³ per year, of which only about 59 million m³ are economically accessible, and less than half, i. e. 44 million m³, is actually harvested. The largest wood resources are located in the Arkhangel'sk, Komi, Karelia and Vologda regions. It can be understood that these regions have the most advanced wood processing industry. The wood waste resources are about 16 mln cubic meters per year.

At the moment wood represents only 2.8% of the region's energy use including residential use in the country side. (Figure 3).

Less than 3% of energy is currently generated from wood in the Northwest, including firewood. In a shorter run, the largest wood energy potential is connected to investments in the mechanical and chemical forest industry. Currently, forest residues and by-products from wood processing plants mainly cause problems (Table 1).

Utilization for energy is very limited. There are about 50 large companies in the forest industry in N-W Russia and most of them are interested in increasing the use of forest residues and their by-products for energy. Many saw mills have already invested in heating plants that utilize their own wood residues. N-W Russia has the best infrastructure in Russia, so it can be expected that the region will be a forerunner in the development.

Later on the municipal sector will increase the utilization of wood energy. There were many limitations in the past that can happen on a larger scale. Some tens of less than 10 MW plants are already in operation, several demonstration projects are planned and once commissioned they will act as a model for the wide scale use of wood in district heating and CHP production.

Looking at the potential of wood energy, a comparison can be made with Finland. Finland produces 7 times more energy from wood than N-W Russia and the potential will double the utilization. Compared to Finland, the potential to increase wood energy is 10–20 times more likely compared to its present use in N-W Russia. This would mean a potential of over 10 Mtoe for wood energy in a longer run.

Wood pellet and briquette production has started to develop due to the low utilization rate of wood processing by-products and quickly growing markets in the EU supported by a good price. The availability of wood for pellet production is very limited in EU countries at the moment, so huge amounts of unused low-cost wood waste and beneficial location favor investments in wood pellet production, especially close to the EU border and in areas from where there are good road, rail or sea connections to the markets. There are over 30 wood pellet manufacturing plants in N-W Russia, and their production capacity is about 50,000 tons. The real production is several times less.

When production started at the beginning of the 2000s, there were quality problems. Now the quality of wood pellets corresponds to the quality of other European producers. The potential for the manufacturing of wood pellets in N-W Russia is at least one million tons and can be compared to the existing capacity in Sweden – and it is more than the potential in Finland.

Table 1
Availability of forest residues and wood waste in N-W Russia

Activity category	Wood consumption per year			
	sum total mln m ³	efficient product mln m ³	wood waste	
			mln m ³	%
Logging	40.25	32.2	8.05	20%
Sawing	11.20	5.6	5.6	50%
Plywood	2.13	0.85	1.275	60%
Pulp and paper	6.81	5.45	1.36	20%

When the level of income increases, especially in big cities such as St. Petersburg, there is interest in using pellets and firewood for heating. Demand for pellet stoves, pellet boilers and wood boilers and fireplaces has started to grow in such areas and provide new emerging markets for foreign manufacturers, also.

FUTURE PERSPECTIVES. CONCLUSIONS

Russia has, in addition to fossil fuels, huge biomass resources. At present, the share of biomass in total energy is less than 1% in Russia and 2.8% in Northwest Russia. The bioenergy sector is not developing as fast as in the EU. Some sectors such as wood pellet manufacturing and the utilization of wood residues at saw mills continue to grow rapidly. The main reasons for the slow development are as follows:

- lack of information and business models (resources, potential, technologies, etc.)
- good availability and low/subsidized price of fossil fuels
- surplus in electricity supply in some regions
- higher investments needed in production and use of biomass fuels
- culture based on fossil fuels and large scale production system
- poor CHP, heat production and heat distribution infrastructure
- problems in logistics caused by long distances and poor infrastructure in some areas
- institutional and political problems
- lack of capital
- lack of education
- general problems in investment environment in Russia

Regardless, the costs of fossil fuels and electricity will increase and approach the international level. The investment environment will improve and investments, especially in the forestry sector, will increase dramatically in the coming years. The government of Russia is in practice free from debt. This will allow the spread of growing income to smaller cities and towns as well. The signing of the Kyoto Protocol and implementation of pilot projects as a part of national energy programs will increase the awareness of bioenergy. All these facts will also allow for increased use of biomass resources and bioenergy in the future in Russia. Northwest Russia has set a target to increase the use of

biomass from the present 2.8% to 16% by 2020. The region will be a forerunner in development of the bioenergy sector in the whole of Russia. Biomass will have an important role in solving ecological, social and economical problems, especially in remote areas of N-W Russia. There will be fast growing emerging markets for all kinds of bioenergy related products in Russia and especially in N-W Russia.

A state program for the development of wood biomass and bioenergy has been developed in the Northwest. The program deals with all aspects from production to utilization, and it embraces technical, commercial, economic, social and marketing issues. The goal of Northwest Russia is to increase bioenergy use to 16% of all energy in 2020. The main targets of the state program are as follows:

- to increase a contribution of wood-based energy in rich forest regions and decrease the cost of production
- to push businesses to develop new production facilities for wood pellets, briquettes, charcoal, etc. by installing tax discounts and other legislative activities
- to change coal and oil boilers for wood biomass
- to develop wood and forest industries in the region
- to adopt wood biomass as a sustainable resource for producing energy, transportation fuels, chemicals and other value added products widely
- to push businesses to start the CO₂ – trade by changing fuels to biomass
- to solve social and ecological problems of the region by implementing new biomass technologies

The Republic of Komi, Arkhangelsk region, and the Republic of Karelia are already close to this goal.

Also, don't forget that Russia signed the Kyoto Protocol in 2006. It will probably join WTO in 2008. Russia has made a decision to increase heavily exported customs for raw wood. At the same time it is lowering export customs for mechanical and chemical wood processing products. All these actions will increase national and foreign investments in the forest industry, and the bioenergy sector as well.

Olga Rakitova,

PhD, Executive Director, The National Bioenergy Union



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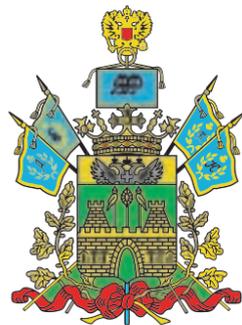
Organizers:
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National Bioenergy Union

Audience:
Heat out of Waste 2007: equipment suppliers, engineers, consultants, forestry and woodworking companies, municipalities, financial institutions and investors, companies of energy sector. Total about 150 participants from Russia, CIS, Baltic States and Western Europe
Fuel Pellets. Russia and the World 2007: Operating biofuel producers and factories under construction, biofuel traders and consumers from many countries, equipment suppliers, investors and financial institutions, consultants, engineers, authorities and all levels. Total over 250 participants.

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THE KRASNODAR REGION IN FIGURES

Thanks to its geographical position, exceptional diversity of landscapes, soils, climate resources, ground and surface waters, and flora and fauna, the Krasnodar region is a unique place in the Russian Federation. The Black Sea coast is an exclusive recreational area with well-developed infrastructure, a branched network of mineral water and therapeutic mud sources, and a subtropical climate enjoyed by millions of tourists every year from throughout Russia and abroad. It has the federal resort of Sochi, and the recreation districts of Anapa and Tuapse, which is a regional resort of Gelendzhik.

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Nearly all forest lands are represented by 1st Group forests and located in the southern part of the region, in the foreland and mountainous area of the West Caucasus. Krasnodar's forest distribution pattern is as follows:

- **Federal forests** – 1,514,000 ha (89.1%)
- **Regional forests** – 141,000 ha (8.3%)
- **Municipal forests** – 9,500 ha (0.6%)

A difficult relief, a special climate, and a history of regional nature development served the prerequisites of the rich vegetation cover of the Northwest Caucasus. The vegetation distribution follows two main zonal patterns: latitudinal and altitudinal, accounted for by the influence of the Caucasus Mountain Range. The North plain part of the Krasnodar region refers to the steppe zone and, in particular, to the Black Sea Lowland forb-feather-grass steppes. A bordering part of the Azov block connected with the Kuban Lowland is covered with forb, feather-grass and fescue steppes, and the lower slopes of the Stavropol Highland are located in the eastern part of the region and are characterized by desert feather-grass and fescue steppes.

From the Kuban River southwards, the steppes merge into forest-steppe. A feature specific to the steppe part of the forest-steppe is an admixture of meadow, forest meadow, and forest grass species. In the forest-steppe zone, forests occupy lowlands and pockets and are composed of oak communities with inclusions of hornbeam, ash, maple, and elm. Vegetation stretching to the south of the forest-steppe zone forms several altitudinal belts, covered with mountain meadows and poorer forest steppes, under the influence of the Caucasus Mountain Range. The forest belt is represented by low-altitude, mid-altitude, and high-altitude forests. Low-altitude mixed forests consist of oak, maple, elm, hornbeam,

beech, and ash. They have fruit trees (pear, apple, cherry plum, sweet cherry, chestnut) and shrubs (rhododendron, hazel, kizil, honeysuckle, etc.).

The western part of the northern Caucasus Range slope is dominated by oak forests with flame azalea undergrowth and scattered hornbeam-azalea, hornbeam, pear-maple, and kizil-medlar communities. The eastern part of the northern slope is characterized by the predominance of common and durmast oaks accompanied by ash, hornbeam, lime, elm, sycamore, Hartwis oak, beech and pear. The smooth slopes of the northern exposition are covered by broadleaved species with scattered fir and yew. The low-altitude forests of the southern Caucasus slope and are uneven.

The western part of the region from Anapa to Tuapse is represented by siccocolous shunted stands and shrub – the so called shibliak. They are composed of pubescent oak, oriental hornbeam, Christ's-thorn, and Aaron's-beard with scattered blocks of Turkish and black pines. The Novorossiysk district is rich in juniper forests composed of various juniper species.

The eastern part of hill forests on the southern slope is characterized by a warm, wet climate. This area is covered by Colchis forests formed by stalkless flowered oak, European chestnut, oriental beech, Caucasian hornbeam, and black alder. Undergrowth includes laurel cherry, box tree, winterberry, and butcher's broom. Relict forest with inclusions of common yew and box tree occurs on the foot of Bolshoy Akhun Mountain.

At medium altitude, broadleaved forests are composed of beech with admixture of maple, ash, elms, hornbeam and lime. Damp places are occupied by fern beech stands, and dry places with cereal beech stands. Undergrowth



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Krasnodar forest distribution pattern according to state inventory as of 1 January, 2007

Name	Total area, thsd. ha	% of Total area
Forestry Department, Krasnodar region	1217.6	73.5
GOUSPO Apsheron MFU-Training School of the Federal Forestry Agency	48.7	2.9
Sochi National Park, RF Ministry of Natural Resources	193.7	11.7
Caucasian State Natural Biosphere Reserve, RF Ministry of Natural Resources	176.2	10.7
Other	20.4	1.2
Total National Forested Area	1656.6	100



is represented by laurel cherry, rhododendron, and winterberry. At higher altitudes above sea level, broadleaved forests merge into spruce-fir formations. The tree layer is composed of Nordman fir and eastern spruce, the understory is formed by beech, sycamore maple, elm, and alder.

Analysis of documents characterizing the condition of the Krasnodar region forests shows that the major forest ecosystem indicators are stabilizing. The importance of the role of forests, by performing water and climate regulating, erosion prevention, sanitary and recreational functions, in sustaining environment, and strengthening environmental balance, is undisputable.

The main Krasnodar forest forming species is oak, which accounts for about 58.6%. The share of softwood is 5.1%, and beech is 15.9%. At present, a new AAC was defined and distributed in accordance with forest accessibility and productivity categories. The stock in accessible productive forests was estimated at 490 mln m³.

FOREST USE AND HARVESTING

The volume of timber designed for harvesting annually is 1,2 mln m³ (70% of total increment). So, decisions made during forest management planning ensure maintenance of the sustainability of forest use in the Krasnodar region. The annual lease exceeds 300 thousand m³. Analysis of AAC use for the period from 1999 to 2007 shows that the area transferred on lease grew from 247 thousand m³ to 463 thousand m³.

Today, leaseholders demand forest areas allocated for harvest in mountainous and foreland FMUs on the territory of the Apsheronsk, Goryachiy Kluch, Mostovoye, and Pshish districts demonstrating the highest output of commercial timber. The average figure is from 40 to 60%. The least demanded areas are located in the Abinsk and Krym FMUs, and also in the steppe FMUs of the Kropotkin, Korenovsk, Kanevskaya, Armavir, and Belorechensk districts, where the percentage of commercial timber output is from 6 to 18%.

Although the percentage of ACC use gradually increased from 13% in 1999 to 27.6% in 2005, it fell to 13% by 2007. This occurred due

to the AAC increase from 770 thousand to 1.2 mln m³, and a reduction in the harvested stock. Complete use of AAC is impossible without new harvesting techniques, including ground skidding with the help of new hauling machines and air haulage by helicopters.

TENDING

Tending is aimed at improving forest composition and creating favorable growing conditions for perspective trees, forming and maintaining highly productive stands, enhancing forest benefits, and using the timber of trees subject to removal from the stand. The Forestry Agency FMUs perform annual intermediate cuttings on 18 thousand ha; the annual volume of commercial timber obtained from intermediate use is 250 thousand m³.

EXPORT

The forest industry engages more than 600 enterprises, including 128 big and medium ones with the aggregate number of employees exceeding 14 thousand people.

The annual export volume grew 2.6 times between 1995 and 2006, mainly due to a significant increase of roundwood and lumber, and approximated \$65 mln in 2006. The major part of Krasnodar's import structure in 2006 consisted of panels, accessories, furniture, paper, and cardboard. The total price of imported products was \$4.2 mln

FORESTRY DEPARTMENT

The Forestry Department, the new executive body controlling the forest industry in the Krasnodar region, was established January 1, 2007. The department is pursuing a governmental regional forest management policy for the purpose of enjoying ownership, use, and disposal rights for national forest areas in the Krasnodar region, and exercising some RF powers in the sphere of forest relations delegated to the authorities of the Krasnodar region pursuant to the effective legislation.

According to Anatoly Maksimenko, the head of the new department, one of the major problems of Krasnodar's forest industry is the absence of regional regulatory acts and a low level of forest road infrastructure

development. Haulage is the most important and costly element of the timber harvesting process. Timber harvest is not possible without construction and maintenance of the forest road network.

The mileage of the network of agricultural roads on the territory of national forests in the Krasnodar region is 3.6 thousand km, including 2.6 thousand km of formerly haulage roads. 1.6 thousand km of roads require repair and cannot be used for removal of timber at the moment. According to the data provided by OJSC Kubanleskhozproekt, the cost of repairing one kilometer of forest roads is from \$80, 000 to \$100,000.

For about 1,500 forest roads, stream crossing structures (bridges, pipes, etc.) should be built. The cost of bridge construction is up to 100 thousand dollars per unit. For the purpose of developing inaccessible forest areas, 500–700 km of roads should be built annually. This will allow access to more than 18 mln m³ of stock within 5 years. The construction cost of one kilometer of forest road is from \$120, 000 to \$150, 000.

Road construction expenses may be significantly reduced with new harvesting techniques, cable skidding, and air transportation of timber by helicopters and aerostats, the lack of which makes the harvest of a hardly accessible stock of 380.9 thousand m³ (accounting for 33% of AAC), almost impossible. Another serious obstacle to the development of forestry in the Krasnodar region is the non-compliance of effective regulatory acts with the new Forest Code. So, no action for forest lands lease for the purpose of harvesting, recreational, or any other use has been held for the previous six months.

The harvesting rate is slowed down by the lack of enterprises processing low grade wood. Nearly 50% of all harvested timber is presented by low grades, and fuelwood. Despite the fact that local authorities pay plenty of attention to the problem, not one of the MDF plant projects has been implemented yet. There is only one enterprise producing chipboards and fiberboards (OJSC Yug, in the Mostovoye district) in the region.

The further growth of the harvesting rate will pose a stiff challenge of woodworking waste, as well as low grade and fuelwood disposal.

Earlier, almost all waste was consumed by the domestic market as fuel. But now, the growing welfare leads to gasification of almost all rural settlements is making fuel wood useless for the local consumers.

In the meantime, Europe and all developed countries demonstrate an increasing interest in the generation of thermal and electrical heat from biologically renewable energy sources. Production and transportation of fuel pellets is becoming feasible. Pellet production, accompanied by generation of thermal heat from wood waste in municipalities, may help solve the problem of low grade wood and woodworking waste disposal.

INVESTMENTS

The Krasnodar region is attracting growing attention as a promising region, and its investment opportunities give impetus for active development of both big and small businesses. More than 20 foreign delegations visit the region for the purpose of strengthening partnership relations and searching for new spheres of cooperation, which raises additional funds for the local economy. The region participates in big international exhibitions, and arranges presentations abroad. About \$2.8 bln has been spent by foreign investors over the last six years. In terms of foreign investment, the region occupies tenth position in the country.

The Krasnodar region successfully pursues investment cooperation with other RF regions. The regional authorities are one of the major organizers of the International Economic Forum which is the most notable event in the Russian economy. The first "Kuban-2002" international economic forum was attended by 500 people. The 2006 event hosted 4 400 participants, including the heads of 53 RF regions, and representatives of 14 countries including Germany, Spain, Italy, France, SAR, USA, the Republic of Korea, Turkey, Egypt, Denmark, and Cyprus. 128 agreements, with the aggregate value of 140 bln rubles, were signed – a result which surpassed all previous forums. 90% of the participants expressed their desire to come to Sochi to participate in the "Kuban-2007" forum, which is actively being prepared for.

Thanks to having 5 years of experience with presentations in Europe, the Krasnodar region





has gained a very positive reputation on the international investment market, and has been accepted as a member by the European Investment Club. Standard & Poor's Company assigned the BB – Positive international credit rating to the region, which signifies the high rank of the Krasnodar region in the global business community. Such an approach allows the region to retain the first position in terms of attracted investments in the Southern Federal District (it accounts for 35% of investments made in the SFD), and the sixth in Russia.

More than 100 local enterprises enjoy investments from 70 countries. They implement many investment projects in various areas of activities positively influencing the output of import-replacing products and fuel and energy sources production. The technologies applied during project implementation are somewhat unique. These are brought by such well-known companies as **Knaut, Phillip Morris, Chevron, Nestle, Tetra-Pak, Radisson, Klaas, Bonduel, and Metro**, which establish huge enterprises in the Kuban region.

ADVANTAGES FOR INVESTORS

The Krasnodar region boasts unique natural and climate resources. This allows for the development of almost all kinds of tourism, from beach to mountain skiing. The decision of the Olympic Committee to hold the 2014 Winter Olympics in the city of Sochi further proves this fact. Also, the RF government has decided to create a special tourist-recreational economic zone in the Krasnodar region. The tourist-recreational zone will cover five areas of the Black Sea coast in the Krasnodar region, in the cities of Anapa, Gelendzhik, Sochi, and Tuapse. The total area of all five districts exceeds 1,700 ha. Business participants of the Olympics project and special economic zone residents will enjoy tax advantages. For instance, an investor will be exempt from property and transport taxes for 5 years, income tax rates and lease for lands will be reduced, etc. According to approximate estimations, the Krasnodar region will be able to consume over €4 bln in investments for the city of Sochi, and another €4 bln for the special economic zone, in the near future.

Apart from this, a special gambling economic zone will be created on the border between the Krasnodar and Rostov regions. A gambling

zone will be located on the territory of the Scherbinovsky district (in the Krasnodar region) with an area of 1,000 ha, and in the Azovsky district (Rostov region) with an area of 1,000 ha and the prospect of extension to 10,000 ha.

The gambling zone concept provides for distinction between the main, supplementary, and other functional zones. The main gambling zone will be located along the coast of the Taganrog gulf of the Azov Sea. This territory will house casinos, slot parlors, bookmaker's offices, and pari-mutuels. Besides this, it will have four – and five-star hotels, bars, restaurants, parks, and sport and resort complexes. This part of the gambling area is supposed to be a VIP entertainment zone. This means the construction of golf-clubs, Equestrian Centers, Yacht Clubs, aqua parks and other projects in the coastal zone.

The part of the zone adjacent to the main one will ensure the effective functioning of the latter. It will contain transport facilities: an airport, a railway station, engineering structures, storage and utility facilities, and enterprises serving and ensuring the work of gambling establishments, hotels, restaurants and other elements of gambling tourism. Moreover, the adjacent territory will offer hotels and residential opportunities, including social infrastructure for servants.

Creation of engineering and transport infrastructure in the gambling zone will include several stages. The first stage will include building of the main transport infrastructure elements (car roads, an airdrome), engineering infrastructure (water, gas, and energy supply systems), communication centers, and drawing up a general development plan of the gambling zone. The second stage provides for construction of railways and a ferry site. The preliminary cost of the complete on – and offsite engineering and transport infrastructure project is 66.5 bln rubles.

Creation and advancement of special economic zones in the Krasnodar region will help develop tourism in Russia, and raise the living standards of the local population. Investment wise, according to the estimates of experts and specialists from Krasnodar's regional authorities, the most attractive spheres are transport and communications, agroindustry,

fuel and energy, resorts and recreation areas, and construction industry.

At present, the Krasnodar region is studying and implementing the experience of Italy's regional industrial districts. This helps make effective use of opportunities for joint manufacture of competitive products by small enterprises. Industrial enterprises are interested in attracting investors from European countries for the purpose of introducing advanced technologies of integrated timber processing, and effective use of available low-grade timber, fuelwood, and woodworking waste.

Italy and the Krasnodar region have quite close relations. The trade turnover between these two regions doubled during the previous three years, and reached €320 mln last year. With Italy's participation, the region houses dozens of companies which produce furniture, varnish, and paints, and produce agricultural goods, treat leather, maintain agricultural machines, and operate car services. "Italy is a strategic partner and investor for us," says Alexander Tkachev, the head of the Krasnodar regional authorities. During a conference called "the Krasnodar Region: Investment Attractiveness, State of Affairs, and Challenges," which was held this May in Rome and Milan, the Krasnodar delegation presented an investment portfolio containing more than 1,400 projects with the cost of €46 bln. As a result, 14 agreements were signed.

Nowadays, the Krasnodar region has many successful enterprises with 100% foreign capital: **Eurowood CJSC** (Italy), **Unza CJSC** (Turkey), **Farkhad CJSC** (Turkey), **Ardala CJSC** (Turkey), **Sindian International CJSC** (Turkey), and others.

Potential investors in forest-related industries are offered investment projects in the following integrated timber processing facilities:

- Furniture enterprises
- MDF plants
- OSB plants
- LVL plants
- A plant for manufacturing pre-fabricated timber frame and panel houses
- Production of fuel pellets from sawdust and woodworking waste

Investors have also been offered a project for activated charcoal production. In order to create

favorable conditions for business development and fund raising, the state investment project support "single window" system was launched. It became 4 years old in July, 2007.

The objective of the single window system is to assist entrepreneurs in developing their businesses, harmonize investment projects with all agencies, support such projects from the date of declaration of intention to build an object to the date of the resolution allocating a land area, and the issue of legal documents for such land. In accordance with the orders of the head of the Krasnodar regional authorities, a database of 900 land areas which are attractive for investors was made. At present, the single-window service is supporting more than 2.7 thousand investment projects.

The Krasnodar region is a south sea gate of Russia. Says its governor, Alexander Tkachev, "Today, every euro spent on transshipment of a ton of cargo in the port will give the transportation process participants the opportunity to earn 3 euros. As a rule, a standard port terminal pays back in 5 years. We can offer such projects."

For the purpose of saving the forest industry, they offer to centralize it, like the defense industry, through the creation of large timber processing which would be able to compete with transnational companies controlling two thirds of the global timber market. The establishment of big holdings capable of arranging their own chain-of-custody from harvesting to production of furniture and paper and exporting products with high added value has been announced as a priority.

INVESTMENT PROJECTS UNDER IMPLEMENTATION

An investment project under the title "Construction of Furniture Panel Plants" with a rated output of 100,000 m³ of high quality sanded laminated panels per year has been launched in the Mostovoye district of the Krasnodar region, on the **OJSC Yug** facilities. The total amount of investments is 2.3 bln Rubles (€65 mln), and the payback period is 1.5 years. In 2007, the investments will amount to 245 mln rubles (€7 mln).

This project will provide furniture enterprises and regional markets with competitive





chipboards and allow them to be exported to other markets. Another project called "OSB Plant Construction", was started in 2006. The planned capacity is 50, 000 m³ of products made from pulpwood and hardwood raw materials (105,000 m³). OSB panels (oriented strand boards) with dimensions of 1, 220 x 120 mm to 2, 440 x 7, 320 mm and thicknesses of 4.76 to 31.75 mm are equivalent to plywood, but are less costly.

The projects look very prospective, due to an exhausted commercial resource base of timber, the necessity of integrated processing of low-grade timber, and a deficit of OSB panels on the Russian and foreign markets. The major markets for these products are of building construction and furniture. The total project cost is 950 mln rubles (€27 mln). The payback period is 6 years.

Apsheronsklesprom CJSC (in the Apsheron district of the Krasnodar region), in cooperation with **OJSC PDK Apsheronsk**, began implementing an investment project in the integrated use of forest resources, from harvesting to advanced processing stages, providing for construction of an MDF plant with an annual output of 130, 000 m³. The project's investment totaled 2.5 bln rubles (€2 mln) (the total cost of the MDF plant project in the Apsheron district is \$50 mln, with a payback period of 37 months). The investor was the Donbas Industrial Union Corp (in the Ukraine).

This investment project is now under the consideration of an interagency commission for the assignment of an "Approved by Krasnodar Region Authorities" status, and the allowance of tax advantages and other kinds of governmental support. The project will supply a wide range of high-quality MDF panels, lumber, plywood, and millwork to furniture plants and the domestic market. It will also create a multiplication effect in the industry, and thus, encourage the creation of new furniture enterprises and jobs in the region.

Another investment project titled "MDF plant in the Abinsk district" is preparing documentation. This project provides for the establishment of a plant for processing low-grade wood using the best global resource saving technologies and is oriented at export and domestic markets in the town of Abinsk. The rated capacity of the plant is 70–130 thousand m³ of MDF panels per year. The investor is XXI Century CJSC (Abinsk).

The aggregate amount of investments in production will be 1.9 bln rubles (€54 mln). The payback period is 37 months. After project implementation, the plant plans to produce MDF, which is experiencing a growing demand on the global and domestic markets. MDF is a basis for furniture, door panels, moldings, wall panels, and parquet.

Still another investment project in a modern plant for producing interior MDF doors is underway



by Grammatikopulo "DOP Gram" Company. The volume of investment is 70 mln rubles (€2 mln), with a 3-year payback period. The high-quality, competitive products of the enterprise are required by Russian construction companies.

OJSC AR-Karton (in the town of Timoshevsk) is actively refurbishing its enterprise, which has a branch network in Moscow and Saint Petersburg. For this purpose, the plant owner annually invests about 105 mln rubles (€3 mln).

At present, an agreement has been prepared between the plant owner of **A&R CARTON AB** (Sweden) – and the Krasnodar regional authorities on expanding cooperation in chrome cardboard package production based in the Krasnodar region. An official signing ceremony was held in Vienna within the framework of the Krasnodar region's presentation for Austrian business and political circles.

This investment project has been submitted for consideration by the interagency commission for assignment of an "Approved by Krasnodar Regional Authorities" status and for allowance of tax advantages and other kinds of governmental support.

OJSC ACA Packaging Kuban (which produces crates from corrugated and microcorrugated cardboard, multicolor print, packaging development, and design) is planning to invest 980 mln rubles (€28 mln) in production refurbishing in 2007. These projects are already being implemented.

The Kastamonu Integrated Wood Industry and Trade company holding intends to implement an investment project under the title "Construction of MDF Furniture Panel Plants" with a rated annual output of 300,000 m³ of panels. The total investments are 2.3 bln rubles (€65 mln), and the payback period is 1.5 years.

Darwood CJSC (in the town of Krymsk) has started a construction project of a plant to produce pre-fabricated timber panel houses. The main product item is residential houses of economy, business, and premium class, assembled from wood-based panels by ready-prepared project designs. These houses will be complete with windows, doors, and other millwork elements made at the company's plant. According to the holding's plans, the products will comply with quality requirements

established by regulations, technical instructions for thermal insulation, sound absorption, and seismic strength.

The project will be supported by the demand of the local house building sector, which is growing at the rate of 25–30% annually. Darwood CJSC is going to construct and commission the said plant by mid-year, and manufacture two turn-key timber houses with aggregate areas of 600 m² by the end of the year. The total cost of the project is 105 mln Rubles (€3 mln). The payback period is 3 years.

Potential investors are offered investment projects in facilities for integrated timber processing and in manufacture of competitive, high-demand products. One example of these is "LVL Plant Construction," which has an annual output of 40, 000 m³. The total project cost is 1.8 bln rubles (€50 mln). The payback period is 6 years. The project provides for 100% investor participation (direct investments).

A number of other projects are under development, and are supported by framework and engagement agreements. These investment projects will significantly increase the tax revenues of the regional budget, create jobs, and ensure effective use of local renewable forest resources.

TOP REGIONAL ENTERPRISES

Regional forest and woodworking industries include 57 big enterprises engaged in advanced timber processing. They produce lumber, particle boards, parquet, office and household furniture, and solid hardwood products.

We will discuss the activities of the biggest timber producers of the Krasnodar region: OJSC Yug, OJSC Goryachiy Kluch Furniture Factory, PF Pollet CJSC, and OJSC Rassvet.

OJSC YUG

OJSC Yug is nowadays the biggest furniture and woodworking enterprise in the south of Russia. It comprises:

- Mostovoye and Labinsk furniture shops, producing solid wood and laminated furniture





- panel products manufacture and processing shop, including particle boards, resin production and laminating facilities
- a fiberboards shop, with an annual output of 55, 000 m³, based on imported equipment of Bison Company
- a woodworking shop producing sliced veneer from hardwood species (including Kremona facilities) and glued plywood from softwood and hardwood species
- sawmilling-woodworking facilities producing lumber, furniture components, and parquet millwork facilities
- a harvesting enterprise producing up to 6,000 m³ of commercial timber per month

The Yug Company product range includes:

- fiber boards (TSN-40 type)
- chipboards
- chipboards laminated with thermoreactive polymer-based embossed films (laminated panels)
- veneer-coated furniture components
- glued plywood
- knife-cut veneer
- parquet from hardwood species (beech, oak)
- door frames
- window frames
- OJSC Yug produces a wide range of furniture for kitchens, bedrooms, halls, tables and chairs, school furniture, and sets for dining rooms. All furniture is manufactured with the help of imported equipment and the use of up-to-date techniques. The company is a regular participant in Russian furniture exhibitions and has been named for various awards.

OJSC GORYACHIY KLUCH FURNITURE FACTORY

Goryachiy Kluch Furniture Factory produces furniture for:

- educational institutions
- hotels
- offices
- children's rooms
- bedrooms
- halls
- kitchens

Products of Goryachiy Kluch Furniture Factory comply with major international requirements of:

- functionality (comfort)

- aesthetics (elegance and superior design)
- hygiene and environmental safety (safety for health)
- economy (medium price)

The organizational committee of the international EC-XXI Century project adopted a resolution, based on an expert study, according to which OJSC Goryachiy Kluch Furniture Factory was distinguished for "Top manager of the XXI Century" and "Enterprise of the XXI Century" nominations. The enterprise is an active participant in furniture exhibitions in various Russian regions. It was granted several awards, including "Best Range, Superior Quality, and Design of Products" (2001, city of Essentuki), and "Optimal Price-Quality Ratio" (2001, Krasnodar).

In late 2006, OJSC Goryachiy Kluch Furniture Factory announced the increase of its authorized capital to 4,566,500 rubles, which is a 5,000% growth. The nominal value of the company's share used to be 20 kopecks, now it will be 100 rubles. According to Nalbiy Yemtyl, the factory's general director, the authorized capital has not been increased since the date of privatization and association of the company in 1992. The share cost increase is accounted for by the growth of furniture production volume and, as a consequence, the company's profits. Monthly profits grew by 6,000% in comparison with the early 90's. The factory has production development plans for the year 2007. Its director intends to augment the actual volume of production by 20%.

PF POLLET CJSC

Pollet Company has been manufacturing metal frame furniture since 1993. Its furniture is characterized by an original and stylish design, stiff metal frame, and high quality materials and workmanship. The company's clients include cafes, bars, and restaurants. Such furniture is demanded by health institutions, vacation hotels, resorts and army institutions.

Pollet metal frame furniture is superior in ergonomics. Special fastenings on chair legs protect the floor from scratches, and various bandings prevent tabletops from early wear. The company's specialists say that its clients have the opportunity to choose from readily-assembled furniture sets or create their own solutions with consideration of their taste and needs. One can also choose a desired colour

solution and order the furniture to be made in Pollet shops.

All furniture is guaranteed for 18 months, (the metal frame, for 5 years). The company's advertising slogan is, "Pollet furniture has a sole disadvantage – too long a life!"

Pollet Company was awarded many times by Krasnodar's State Duma and administration. In particular, the company was awarded "Best Furniture Enterprise" for several years.

OJSC RASSVET

Currently, OJSC Rassvet is one of the leading enterprises not only in the Apsheron district, but in the Krasnodar region, too. The company's production facilities have an output bringing more than 50 mln rubles per year. The company has been leasing forest area for five years for the purpose of timber harvesting, final felling of fifteen thousand m³ per year, and the intermediate use of three thousand m³.

The enterprise engages 250 people, and is comprised of the following elements:

- logging teams
- a construction site
- design & construction department
- timber processing facilities (parquet, moldings, lumber)

OJSC Rassvet specializes in advanced timber processing, and production of the following product items from valuable timber species (oak, beech, maple, ash):

- block parquet
- interior lining
- frames
- a range of baseboard types
- dried edged lumber

All products are high quality and have the Russian certificate of conformity.

OLYMPIC GAMES IN SOCHI

A federal target program aimed at the advanced development of Sochi as the main Russian mountain resort was developed in early 2007. German Gref, the minister of economic development and trade, and Alexander Tkachev, the Kuban governor, emphasized during a meeting of the

coordination council about the program held in Sochi, that the government is ready to spend at least 317 bln rubles on the development of a mountain resort. If there is need, the sum will grow!

How is the federal target program being implemented? The State Duma is going to prepare and approve a pack of regulatory documents in relation to preparing the city of Sochi for the 2014 Olympic Games by the end of 2007. A special Olympic law will establish tax and customs advantages for all Olympic construction projects to be realized on the territory of the Krasnodar region. A State Olympic Corporation will perform the owner's functions in all Olympic construction projects. It will include representatives of the RF Government, and heads of top companies implementing Olympic projects.

The Coordination Council has already created several working groups. One of them deals with transport issues; another, with energy; and the third one, with architectural design. The third group's activities are in special focus. All sports complexes should be not only modern, functional, and comfortable, but also of original design. Their exterior should signify that the planet's major 2014 sports competitions are held in Russia, a country with long-standing traditions including those in architecture.

Apart from legal issues, Sochi has started design and construction work on Olympic sites. The budget for this work is 2.4 bln rubles. Laura and Rose-Hamlet mountain skiing complexes in Red Glade are under construction. In the Carousel mountain ski resort, the second stage of a funicular system for lifting tourists to the Aibg Ridge is being commissioned. The second stage of constructing the first-class Zvezdny Hotel has begun in Sochi. Energy companies have completed construction of the up-to-date Vereschaginskaya electric power substation. Construction of a new hospital has begun in the Red Glade settlement.

Having analyzed all the information regarding preparation for the previous twelve Olympic Games, we can say that the project, presented by the city of Sochi, is the most challenging and vigorous, because Russia will have to build all of the sports infrastructures on a greenfield.

It is noteworthy, that the news about holding the Olympic Games in Sochi was not perceived





with enthusiasm by everyone. The Direct Action Team (DAT) arranged a manifestation on August 7 for saving the wildlife of the Caucasus from endangerment by construction of Olympic and entertainment facilities. DAT activists spiked trees in places allocated for construction in reserved Grushevy Ridge, eliminated the markings of the future bobsleigh circuit, damaged the panel illustrating the sports facilities on Grushevy Ridge, and set fire to a drilling installation for taking soil samples from the construction site of the bobsleigh circuit.

DAT members explained that their actions were justified by the immoral decision of the International Olympic Committee (IOC) to choose Sochi as a capital for the 2014 Olympic Games. In fact, they explained, IOC supported the destruction of unique Caucasus nature. Grushevy Ridge, one of the most valuable natural features of Sochi national park, will be distorted.

Moreover, Grushevy Ridge adjoins the Caucasian reserve and is a buffer zone of the UNESCO World Heritage Object. "These forests are ancient, indeed," said a DAT activist. "We followed footprint paths and saw traces of a bear, a wolf, and roe deers. The trees are so enormous, that it takes four people standing around them to embrace their trunks. Destruction of all this is next to blasphemy."

The spot is intended to house a bobsleigh circuit, a biathlon complex, a snowboard pipe, a mountain Olympic village, and hotels.

The DAT message to IOC says: "We insist that you move the complexes planned to be built on the Grushevy Ridge to the disturbed natural areas located closer to Sochi. This is possible, as there are such places. Otherwise, if the construction work begins on Grushevy Ridge,



DAT will take more active measures and torpedo the project. Olympic movement will gain the reputation of a destroyer of the invaluable natural heritage of humanity." The members of the committee also appealed to the RF Government and the President.

DAT sent a letter to the administrations of Sochi and to the Krasnodar region specifying locations with spiked trees and asking to leave the signs "Beware, bobsleigh circuit is spiked". If spiked trees are felled, the saws will break down, and workers may be injured. Spiking is a method of protecting the forest from being cut. Nails are hammered into tree trunks in places of supposed cuts. Such trees may not be felled, as saw blades break down against the hammered nails.

After the IOC made a decision to hold 2014 Olympic Games in Sochi, the Federal Forestry Agency (Rosleskhoz) began continuous satellite monitoring of the Krasnodar region's forests for the purpose of forest legislation observation and control. The Centre of State Forest Inventory and Assessment (FGUP Roslesinform), which is subject to Rosleskhoz, will be the process operator. According to Valery Roshchupkin, the head of Rosleskhoz, the latest equipment will allow Roslesinform to submit online information about the influence of Olympic sports facilities construction on the ecosystem of the city of Sochi and the Krasnodar region as a whole. "Digital technologies of satellite observation let us scan the required areas with maximum resolution, distinguishing separate trees. If we suspect any signs of violation of the law, we will inform the government and public about that."

Satellite monitoring data will be regularly published on the Rosleskhoz website and will be accessible for all. Valery Roshchupkin stressed that this may help handle many issues regarding preparation for the Olympics. Particularly, questions asked by public organizations.

Rosleskhoz introduced distant monitoring, a new forest resource control system, in 2005. The system significantly increased the effectiveness of activities aimed to prevent illegal timber trade. Monitoring is based on decoding materials of space and large-scale survey of cutting areas in forest rich regions of Russia.

Eugeny Trostok

THE LEADING ENTERPRISES OF THE KRASNODAR REGION

Company's Name	Activity	Address	Contacts
ALIE, CJSC	Trade in forest and timber, exporting of wood, sawn timber, manufacture and sale	353507, Krasnodar region, Temrtuk, Topolinaya Str., 14 Russia	Ph.: +7(861-48)4-13-13, 6-56-01, Teml2@mail.ru
ALMIVA, CJSC	Woodworking industry, staircase guarding from stainless steel and ferrous metal	350020, Krasnodar, Gavrilova Str., 30 Russia	Ph.: +7(861)255-64-65, almiva@yandex.ru
AMETHYST PLUS, CJSC	Trade in sawn timber	350005, Krasnodar, Volgogradskaya Str., 121 Russia	Ph.: +7(861)258-42-09, Fax: +7(861)258-45-57, ametistplus.narod.ru, ametist_plus@poshta.ru
APSHERONSKAYA LUMBERING COMPANY, CJSC	Wood-logging, sawn timber, parquet flooring, floor molding, structural beam, coalesced board	352678, Krasnodar region, Chernigovskoye set., Komsomolskaya Str., 1 Russia	Ph.: +7(861-52)34-145
APSHERONSKY LESHOK, State Enterprise	Wood-logging, wood-cultivation etc.	352690, Krasnodar region, Apsheonsk, Kommunisticheskaya Str., 23, Russia	Ph.: +7(861-52)9-12-85, 9-11-90, aphleshok@mail.ru
APSHERONSKY TIMBER MILL, OJSC	Sawn timber production	352695, Krasnodar region, Apsheonsk, Lunacharskogo Str., 1, Russia	Ph.: +7(861-52)21-132, ramil.r.j@gmail.com
ARIZONA COMPANY	1. Supplier of utilities necessary to produce furniture. 2. Supplier of flat and coiled (melamine, cutting-in and removable shapes, PVC, liquid glue etc.)	350075, Krasnodar, Seleznyova Str., 60 Russia	Ph.: +7(861)235-77-74, www.arizonacom.ru, mail@arizonacom.ru
ARKADA, CJSC	Woodworking industry	385602, Maikop, Hanskaya district, Lenina Str., 125, Russia	Ph.: +7(928)469-07-20
ARKARTON, OJSC	Production of packing materials	352700, Krasnodar region, Timashevsk, Gibridnaya Str., 2 Russia	Ph.: +7(861-30)26-200, 26-480, Fax: +7(861-30)26-425
AVGUR-BVV, CJSC	Production of sawn timber (trimming, non-trimming)	350030, Krasnodar, Dzerzhinskogo Str., the 3rd dep., sovkhoz Solnechnaya, opposite the State-farm (Gorhutor) Russia	Ph.: +7(861)270-38-52, (918)435-11-04, (918)439-95-35, avgur-bvv@mail.ru
AZOV TARA, OJSC	Production of packing materials	353860, Krasnodar region, Primorsko-Akhtarsk, Zavodskaya Str., 1 Russia	Ph.: +7(861-43)21-436, Fax: +7(861-43)21-053, aztara@mail.ru
BAKAUT, CJSC	Production of cabinet furniture	350005, Krasnodar, Volgogradskaya Str., 121, Russia	Ph./fax: +7(861-2)584-895
BELORECHENSKY LESHOK (FORESTRY)	Production of sawn timber and wood-logging	352635, Krasnodar region, Belorechensk, Lenina Str., 68/1 Russia	Ph.: +7(861-55)2-35-43, 2-34-86, belleshok@beirus.kuban.ru
BIRIS, CJSC	Engineering, assemblage and lining of ecological operations equipment for the woodworking and forestry industry. Production and reconstruction of drying kilns. Utilization of woodworking and forestry wastes. Warranty and post-warranty of drying kilns	350001, Krasnodar, Vishnyakova Str., 1 Russia	Ph.: +7(861)211-03-90, 211-21-29, 211-21-54, www.biris.by.ru, biris98@mail.ru
BONUS, CJSC	Trade in sawn timber, plank from pugnacious and coniferous wood	353680, Krasnodar region, Yeysk, Rabochaya Str., 2A Russia	Ph.: +7(861-32)2-20-14, 2-63-24, 2-20-15, 3-51-11, bonus-yeisk@yandex.ru
EXPORTLES, CJSC	Lumbering and wood-processing industry	353680, Krasnodar region, Yeysk, the 3rd Beregovoy per., 4 Russia	Ph.: +7(861-32)200-62, 214-05, 262-82, fax: +7(861-32)262-85, 200-63, tg-smp@mail.ru
ENERGETIK, CJSC	Production of wooden tare (trays)	352700, Krasnodar region, Timashevsk, Kotlyara Str., 2 Russia	Ph.: +7(861-30)5-86-25, energ@rtmv.kuban.ru
GORYACHE-KLYUCHEVSKAYA MEBELNAYA FABRIKA, OJSC	Production of furniture for home and office. Cabinet furniture	353292, Krasnodar region, Goryachy Kluch, Kondratjeva Str., 70 Russia	Ph.: +7(861-59)346-56, 350-67, Fax: (861-59)358-12, 341-81, www.gkmf.ru, meb_fab@mail.kuban.ru



Company's Name	Activity	Address	Contacts
INTERPLIT, CJSC	Retail sale and wholesale of materials for furniture production	350051, Krasnodar, Neftyanikov Highway, 38 Russia	Ph.: +7(861)215-78-70, 224-42-18, 225-1776, www.interplit.ru, interplit@inbox.ru
JEYSK FURNITURE PLANT VAP	Production of furniture made from natural beech for technological German equipment, in bulk delivery	353680, Krasnodar region, Yeysk, Khmel'nizkogo B. Str., 230A Russia	Ph.: +7(861-32)7-00-67, 4-61-35, 4-30-76, www.esk-vap.ru, vap-mebel@mail.ru
KANON, CJSC	Deep woodworking of different kinds of timber, manufacture of glued products from solid-deciduous kinds of wood	352690, Krasnodar region, Apsheronok, Proletarskaya Str., 181B Russia	Ph.: +7(918)3771159, +7(861)52-211-44
KATRAN PLUS, CJSC	Trade in sawn timber: plank, wood-shaving board and veneer	353960, Krasnodar region, Novorossiysk, Tzemdolina, Zolotaya Ribka Str., 1B Russia	Ph.: +7(861-7)64-66-77, 62-34-31, Mob: +7(918)445-92-31
KOSTA SHLIFOVANIYE (VEKTOR BUSINESS)	Sale, warranty and post-warranty servicing of gauging and grinding machines made by Costa Levigatrici S.P.A. (Italy)	350000, Krasnodar, Karasunskaya Str., 101 Russia	Ph.: +7(861)240-02-99, 274-75-29, www.vbus.ru, svd@vbus.ru
KRASNODARSKAYA FABRIKA KARTONAZHNIH IZDELII, CJSC	Production of packing materials	350002, Krasnodar, Levanevskogo Str., 169 Russia	Ph.: +7(861)255-21-61, Fax: +7(861)255-41-21
KRASNODARSKY CENTER ABRASIVE, CJSC	Woodworking machines, equipment for furniture production in the South of Russia	350020, Krasnodar, Krasnaya Str., 145/1, office 8 Russia	Ph.: +7(861)251-84-70, abrasive04@rambler.ru
KUBAN TPK, CJSC	Trade in sawn timber	350051, Krasnodar, Dzerzhinskogo Str., 40 Russia	Ph.: +7(861)215-6252, Fax: +7(861)210-06-98, tpk-kuban@mail.ru
KUBAN-TEST, Kuban's Center of Certification and Expertise	Certification of pulp-and-paper output, cardboard, paper packaging, products of the woodworking and furniture industry	350000, Krasnodar, Krasnaya Str., 124 Russia	Ph.: +7(861)259-51-62, Fax: 259-55-06, Mobile: +7(918)484-5186, www.kubtest.ru, kubtest@list.ru
LEGION AND CO, CJSC	Wood-logging and production of sawn timber	353326, Krasnodar region, Abinskiy district, Shapshugskaya station, Mira Str., 4A Russia	Ph./fax: +7(861-50)34-119
LESAGROSTROY, CJSC	Wood-logging, wood-sawing and woodworking	352121, Krasnodar region, Tikhorezk, Volgogradskaya Str., 4 Russia	Ph.: +7(918)200-07-30, +7(961)587-20-11, terminal_4@mail.ru
LESNIKI, OJSC	Production of sawn timber from solid and coniferous kinds of wood	351680, Krasnodar region, Apsheronok district, Gorkogo Str., 38, Russia	Ph.: +7(861-2)428-683, lesnik.68@mail.ru
LESNOJ MIR (IP), group of companies	Construction materials, sawn timber and wooden units	354000, Krasnodar region, Sochi, Plastunskaya Str., 52, lit.3, Russia	Ph.: +7(862-2)69-36-36, maxcona@newmail.ru
LESOPROMISH-LENNIK, CJSC	Woodworking industry, parquet	353285, Krasnodar region, Goryachy, Imeretinskaya station, Lermontova Str., 15 Russia	Ph.: +7(861-59)5-31-32, lprom@inbox.ru
LESHIMOPTORG, CJSC	Trade of sawn timber, planks, bars etc.	350059, Krasnodar, Uralskaya Str., 128 Russia	Ph.: +7(861)231-09-78, 236-85-73, 236-17-09, 236-56-34, 236-04-46
LIST-PRIM, CJSC	Manufacture of windows and wooden doors	350007, Krasnodar, Khimzavodovskaya Str., 5A Russia	Ph.: +7(861)268-72-11, 268-93-06, listprim@rambler.ru
MANAGING COMPANY BELORA, CJSC	Production of sawn timber and veneer	352630, Krasnodar region, Belorechensk, Mikopskoye highway, 10 Russia	Ph.: +7(861-55)26-015, 26-010, Fax: +7(861-55)25-080
METELIZA, Transporting company	Wood construction and transporting	353500, Krasnodar region, Temryuk, Kosmonavtov Str., 16 Russia	Ph.: +7(918)440-37-00, taxi_metelica@mail.ru



Company's Name	Activity	Address	Contacts
MIR DEREVA, shop-saloon	Molded strips from fine wood, euro-deel board from oak, pine spruce and alder; parquet and furniture accessories; profiles of finish casing, skirting boards, ceiling cornices and furniture armatures. Produced by Weinig equipment	350000, Krasnodar, Dlinnaya Str., 79 Russia	Ph.: +7(861)259-83-83, 259-88-44, www.mir-dreva.ru, postmaster@mir-dreva.ru
NOVOROS-LESEXPORT, OJSC	Transporting and transshipment of lumber and timber products	353900, Krasnodar region, Novorossiysk, Mira Str., 2 Russia	Ph.: +7(861-7)600-469, 600-424, 600-453, 600-401, 614-499, www.nle.ru, referent@nle.ru
ORIZON, CJSC	Manufacture of kitchen furniture. Working out and manufacture of top-quality cabinet furniture of different modifications	350059, Krasnodar, Tikhoretskaya Str., 28 Russia	Ph.: +7(861)231-40-82, 234-11-70, 234-22-34, 234-20-30, Ph./fax: +7(861)231-99-91 www.mebel-orizon.ru ooo-orizon@mail.ru
PARQUET KUBANI	Production and realization of parquet	350051, Krasnodar, Neftyanikov highway, 38 Russia	Ph.: +7(861)224-05-96, www.kubanparket.ru, info@kubanparket.ru
PLANETA PARKETA, CJSC	Production of parquet, laminate and floor board	352650, Krasnodar region, Apsheronok, Koroleva St., 132 Russia	Ph./fax: +7(861-52)23-495
POLESJE, CJSC	Lumbering and production of sawn timber	352678, Krasnodar region, Apsheronok district, s. Chernigovskoje, Mira Str., 1 Russia	Ph./fax: +7(861-52)34-119
POLLET company	Furniture for offices, restaurants, pubs, cafes, holiday centers and hospitals	350051, Krasnodar, Stasova/Sormoskaja Str., 178-180/1 (HBK territory) Russia	Ph./fax: +7(861)210-18-81, 210-18-82, 210-18-83, 270-52-12, 271-10-92, pollet@mail.ru
PROMNEFTEHIM-AGROSNAB-KUBAN, CJSC	Direct supplies of trimming and non-trimming sawn timber from Angarsk pine and pine cebra from the Sverdlovsk and Irkutsk regions and Krasnoyarsk krai.	350039, Krasnodar, Kalinina Str., 1A, the 2nd floor. Russia	Ph.: +7(861)277-00-96, 277-00-46, Fax: +7(861)228-18-76, 228-18-99, www.pnh.kuban.ru, pnh@mail.kuban.ru
PULSAR, CJSC PKP	Materials of professional constructive chemistry, construction, finishing, protection of buildings, as well as materials for woodworking and furniture manufacture (paint-and-lacquer materials)	350072, Krasnodar, Rostovskoje highway, 12 Russia	Ph.: +7(861)252-26-80, 252-26-84, 252-26-79, 252-26-85, www.pulsarpkp.ru, pulsarpkp@nm.ru
RASSVET, OJSC	Lumbering, production of sawn timber	352690, Krasnodar region, Apsheronok, Fabrichnaya Str., 2 Russia	Ph.: +7(861-52)2-02-89, 2-12-65, Fax: +7(861-52)2-02-89, www.rassvet.apsheronok.ru, rassvet@apsheronok.ru
RESIRS – YUG, CJSC	Production of sawn timber. Dendrochemistry	353293, Krasnodar region, Goryachiy, Gertsena Str., 56 Russia	Ph.: +7(861-59)4-66-17
RUSSKY LES, CJSC	Production of sawn timber. Bucking	350680, Krasnodar region, Yeysk, Rabochaya Str., 2A Russia	Ph.: +7(861-32)2-67-40, 2-62-59, 2-67-42, rus_les@rambler.ru
SCA PACKAGING KUBAN, OJSC	Production of packaging materials	352708, Krasnodar region, Timashevsk, Gibridnaya Str., 2 Russia	Ph.: +7(861-30)26-193, Fax: +7(861-30)26-282
SEVERLES, private company Silverstov	Trade in sawn timber: bars, planks, platbands and veneer	350059, Krasnodar, Uralskaya, 89/1 Russia	Ph.: +7(861)260-14-87, 8(918)207-32-87
SEYANGA, CJSC	Production of cabinet furniture	350038, Krasnodar, Plodorodny village, 14 Russia	Ph./fax: +7(861-2)749-449, seyanga@inbox.ru



Company's Name	Activity	Address	Contacts
SIBIRIAN FORESTRY COMPANY PLUS, CJSC	Trade in sawn timber: bar, planks, veneer etc.	350912, Krasnodar, Bershansky Str., 349 Russia	Ph.: +7(861)227-74-00, 227-74-01, 8-918-349-79-49, sfcplus@mail.ru
SLAVYANSKIY TARE PLANT, OJSC	Wooden tare, kitchen board kits, caskets, wooden boxes	353560, Krasnodar region, Slavyansk-na-Kubani, Druzhbi Narodov Str., 61 Russia	Ph.: +7(861-46)2-10-80; 2-28-69
SOCHI FURNITURE PLANT, CJSC	Production of furniture	354068, Krasnodar region, Sochi, Donskaya Str., 28 Russia	Ph./fax: +7(862-2)984-296, 984-469
SOCHINSKY DOZ, OJSC	Production of euro-windows	354065, Krasnodar region, Sochi, Gagarina Str., 72/1 Russia	Ph.: +7(862-2)983-427, 981-902, Fax: +7(862-2)986-661, sochidoz@sochi.ru
STROITELI YUGA, CJSC	Lumbering and wood construction	350051, Krasnodar, Neftyanikov highway Russia	Ph.: +7(861)216-12-73, 8(909)464-33-74, str-uga@mail.ru
STROYLESPROM, CJSC	Woodworking and lumbering industry	352571, Krasnodar region, Mostovskiy set., Stroitel'naya Str., 4 Russia	Ph.: +7(861-92)5-31-91, 5-46-63, stroifortuna@mail.ru
SPHERA-KOMPLEKT, CJSC	Woodworking equipment and tools, glue for woodworking and furniture industry	350001, Krasnodar, Vyshnyakova's Str., 1 Russia	Ph.: +7(861)268-65-56, 211-24-30, sfera@linki.ru
TARE PLANT, CJSC	Trade in sawn timber: bar, planks, door leaf etc. Wood tare	353235, Krasnodar region, Afipskiy set., Privokzal'naya Str., 7 Russia	Mob: +7(918)415-62-04, Ph.: +7(861-66)3-31-31, 8(961)598-63-98, tara23@inbox.ru
TAVERNA, CJSC	Lumbering and production of sawn timber	352678, Krasnodar region, Apsheonskiy district, Chernigovskoye set., Mira Str., 11 Russia	Ph.: +7(861-52)34-166, 34-339
TDV-YUG, CJSC	Trade in sawn timber: planks, veneer etc.	350051, Krasnodar, Rapshilevskaya Str., 333B Russia	Ph.: +7(861)270-51-63, 215-55-56, sdb@mail.kubtelecom.ru
TECHSNAB-YUG, CJSC	Trade in imported and native woodworking equipment and instruments, drying kilns, cutting tools, deal-frames, equipment for log manufacture, machines for furniture production	350075, Krasnodar, Selezneva Str., VC Everything for woodworking production	Ph.: +7(861)234-30-83, 234-33-67, www.techsnab-ug.ru, techsnab-ug@mail.ru
THE SOUTHERN CONSTRUCTION COMPANY, CJSC	Trade in sawn timber: bars, planks, veneer, wood-shaving boards and other building materials	350042, Krasnodar, Ippodromnaya Str., 1/1 Russia	Ph.: +7(861)210-00-96, 210-00-96, www.s-sbc.ru, sbc-krasnodar@s-met.ru
VAMRAD and Co, CJSC,	Lumber: veneer, fiberboard, lamel and insulating materials	350080, Krasnodar, Uralskaya Str., 144, office 127 Russia	Ph.: +7(861)210-18-42, 210-18-25, www.vamrad.ru, krasnodar@vamrad.ru
VATAN, CJSC	Woodworking and wood-logging industry	353590, Krasnodar region, Mostovskiy district, pos. Uzlovoj, prom-zone Russia	Ph.: +7(861-92)6-64-30, Mob: +7(928)660-91-73
VOSTOK-KUBAN, CJSC	Production of furniture from fine wood	350051, Krasnodar, Volgogradskaya Str., 121 Russia	Ph.: +7(861)258-31-52, 258-28-54, www.vkmebel.ru, sop58@rambler.ru
WOODWORKING ENTERPRISE GREM, Private company Grammatikopulo	Production of room doors	353320, Krasnodar region, Abinsk, Oktyabrskaya Str., 96 Russia	Ph.: +7(861-50)52-064, Fax: +7(861-50)42-780, Gram1@aport.ru
YUG, OJSC	Woodworking industry	352571, Krasnodar region, Mostovskiy set., Zavodskaya Str., 1 Russia	Ph.: +7(861-92)5-14-44, 5-25-40, www.uqkuban.ru
YUG TRADE KRASNODAR, CJSC	Woodworking, trade in construction materials: sawn timber and wooden units	350000, Krasnodar, Sevrnaya Str., 320, office 327, 339, the 3rd floor Russia	Ph.: +7(861)210-35-34, 272-14-05; 210-14-05 www.ug-trade.ru, info@ug-trade.ru, ug-trad@yandex.ru
YUGLESAGRO, CJSC	Supplies of sawn timber, glass and processed timber, wholesale	350015, Krasnodar, Putevaya Str., 5, office 20 Russia	Ph.: +7(861)215-96-88, +7(918)299-51-89, www.yuglesagro.ru, yuglesagro@mail.kuban.ru





VOLGOGRAD REGION

The Volgograd region is located on the southeastern part of the Russian Federation. The region sprawls out over 113,000 square kilometers in total area and borders with the Saratovskaya, Rostovskaya, Astrahanskaya, Voronezhskaya regions, but also with the Kalmykia, North Caucasian and Central Chernozjemnaya districts.

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Throughout the territory of the Volgograd region lie many important transport arteries, including railway, automotive, water and air passages, with a total length of railways stretching 1,600 kilometers, internal ship passages of 1,500 kilometers, and automotive roads – more than 14,000 kilometers (83% of general use roads have hard surfaces). The Lower Volga and Don, which are connected by a ship canal, create suitable conditions for transportation of various cargo through the region from the European continent to the shipping zones of Africa, and the Near and the Middle East.

The climate of the Volgograd region is dry and continental, with a cold winter with minimal snow fall, and a prolonged, hot and dry summer. Spring is short, and the fall is warm and clear. The amount of sunlight is comparable to the southern shores of Crimea. The northwestern part of the region is situated on the forest steppe, while the eastern part consists of semi desert, almost similar to an actual dessert. The average amount of yearly precipitation in the northwest is up to 500 mm, in the southeast about 300 mm. Relief of the region is flat, which is mainly attributed to its being located on a plain. With respect to the thermal and humidity levels, and specification of composition of soil, the Volgograd region is divided into four agro climatic zones: steppes, semi steppes, deserts and semi deserts.

There are about 200 rivers that flow through the region, totaling about 7,981 kilometers. Within the proximity of the region lies the Donetsk basin. Coal oil and gas production are also present. Large hydro electrical and thermo electrical power plants are located between the two bases of Central and Ural. A metallurgical base is situated close to the Volgo-Ural chemical base.

The Volgogradskaya region has a large wealth of natural resources that can be used for the growth of the mineral resource base, in that it possesses a concentration in the following natural resources: carbon based resources (oil, natural gas condensate and regular natural gas), chemical (potassium, magnesium, sodium salts, phosphate), cement based resources for the metallurgical industries (molding sand), industrial building materials (carbonate rock and sandstone for the manufacturing of detritus and rubble rock, sand and clay for various purposes), metallic ore, ferrous and rare metals (titanium-zirconium deposits), etc. In addition,

large quantities of underground water reserves including mineral water are present.

FORESTS

The Volgograd region has a low density forest territory. As of 1 January, 2007, the total forest area consists of 704.7 thousand hectares. The density of forest throughout the region is on average 4.3%. The forest is allocated unevenly throughout the region.

The highest amount of woodland is situated in the north and northwestern part of the region. In most territories the density varies between 6.7% and 9.1%. Exceptions are the Kumylzhenskiy district with woodland of 13.9% and the Novonikolaevskiy, Novoanninskiy, Elanskiy and Kikvidzenskiy districts where the woodland is considerably lesser and consists anywhere from 1.8% to 3.2%. In the central part of the region the woodland varies from 4.3% to 6.2%. The lowest woodland indicators are located in the southern part of the region (from 3.8% to 0.9%) and in Zavolzhe (from 1.4% and lower). An exception to this zone is the Middle Ahtbunskiy district, where, thanks to the Volgo-Ahtbunskiy forest flood-lands, the woodland reaches 5.4%.

Of the total amount of forest land, one third is made up of artificial growth – forest culture. These include a pine plantation on sand, and plantations of ligature, robinia and ash. Large quantities of artificial growth can be found in the lower woodland's density. What artificial plantations mean for the Volgograd region, which is situated mainly in the dry steppe zone, is hard to calculate. These woods, whose primary roles are anti erosion, water protection and recreation functions, belong to the protected forests.

A few dozen wooden and bush based breeds grow in the region, though the forests consist mainly of the following breeds: oak, pine, poplar, ligature and ash. Plantations of these breeds occupy more than 80% of all lands covered with forest.

Age composition of the forests is characterized by the majority of middle aged plantations and young growth. However, in the Volgograd region, as well as in other low density woodland regions, an expansion process of ripe and overripe woods areas is being carried out.

Soft foliage breeds make up the greatest portion for expansion in ripe and overripe forest areas.



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This process is explained by a decrease in felling of main use woods, and the falling rate of overall felling.

The majority of the Volgograd region's forest grows in difficult wood growing conditions and therefore does not have a high rate of productivity. A large part of the wood qualifies as class III or class IV.

The forest fund consists of 695.5 thousand hectares, of which 124.2 thousand hectares are owned by agricultural organizations. The forest areas of other categories are not large and consist of 9.2 thousand hectares, of which 7.5 thousand are city forest, and 1.7 thousand lie in military lands.

The average reserve of wood for 1 hectare of forest covered area is 73 m³, including the ripe and overripe plantations where it is 130 m³.

Besides wood procurement, the main uses of forests are:

- Storing and gathering of food resources
- Conduct of agriculture
- Hunting purposes
- Recreational activities

The main types of agricultural forest use are haymaking and livestock pasturage. However, with the overall decrease of livestock headcount, pasturage in recent years has decreased dramatically. The local population usually gathers medicinal resources, berries and mushrooms. The most profitable and forward looking use of the forest is geared towards recreational activities.

FOREST CULTIVATION

Early efforts for the protection of forest cultivation in the Volgograd region began two centuries ago. Writer Aleksey Tolstoy wrote about Tsaricino (the name of Volgograd before the 1917 revolution, which was later called Stalingrad, and renamed Volgograd in 1961). "The city is situated on sun burnt hills on the right side of the river Volga. On the city outskirts begin rough steppes, crossed by drying rivers and clayish ravines - wooden, naked, dusty city." Sand had been fast-approaching from many sides of the city; it had often experienced dust storms, and the situation from the 80s into the 21st century became

very critical. With the directive of a special Forest Commission of Russian Imperia and its Donskiy Administration in 1879, it was decided to begin the plantation of an Archidenskiy forest tract. In total, before the revolutionary period, about 2.3 thousand hectares of forest was created on the territory of the modern-day Volgograd region, which solidified more than 5,000 hectares of sand. These efforts were also continued during the Soviet era. On October 20th, 1948 a resolution of the Soviet Ministry and ZKVVP read: "Through forestry field protection, the creation and adoption of grassland crop rotation, construction of ponds and water reservoirs, a plan shall be carried out for massive and constant crops in the steppes and forest-steppes of regions of the European part of the USSR."

The resolution, which is known as "Stalin's plan of nature transformation," has been successfully realized. Various parts of the region, under the guardianship of the manmade forests in sand, which have never been used before, have been turned into lands of intensive agriculture. Not to mention that in those territories where forests have been created, a "forest" ecosystem has developed over time, and is specific to the forest flora and fauna.

Due to the hard work of Volgograd's forestry specialists, from 1966 to 1988, the woodland of the region has grown from 3.2 % to 4.4%. A targeted complex program called "Forest" was approved in 1998, according to which the area, with all kinds of plantations, should have reached a science based area of 411,000 hectares. Even though the program has never been finalized, it has further promoted the development of the forestry of the region. The years of hard work of the forestry specialists of the Volgograd region have proved the possibility of successful forest cultivation under the conditions of the dry steppe and semi-desert of southeastern Russia.

Today there are 34 forestry development projects in the Volgograd region. The forestry specialists are attracting students for a joint venture. Thus, in 2006, the region's forestry established 2,002 hectares of forest plantations (table 1). Such crops as pine, oak, robinia, pseudoacacia, green ash and others have been planted on an area of 1,967 hectares. 35 hectares of oak crops have been planted by means of using acorns.

Table 1
Work volume by forest regeneration forestry in 2006 (in hectares)

#	Type of jobs	Planned (hectares)	Accomplished (hectares)
1	Forest regeneration including plantation of forest	2,000	2,000
2	Forest culture care	25,742	24,736
3	Introduction of young growth into precious planting	1,200	2,113

In 2006 there were 7.3 million pieces of standard seedlings, which included pines – 4.529 million pieces; oak – 62 thousand pieces; robinia pseudoacacia, green ashes and other types of trees – 270.9 thousand pieces. During the year there were 14,862 kilograms in forest seed stocks, where 1,688 kilograms were from PLSB, and 28 kilograms from forest seed plantations.

At the present time, law drafts, as well as other normative legal acts in the fields of use, defense, guardianship and reproduction of the forests of the Volgograd region are being prepared and await confirmation in order to correspond with the laws of the Russian Federation.

Certain steps have been taken that have allowed the possible suspension of forestry measures in connection with the country's reform in forestry to be avoided. A work group has been formed in order to work out a complex plan for protective forest cultivation and forestry in the Volgograd region. Substantiation has been developed for this complex program for the period of 2008-2015. The following arrangements have been organized by the forestry authorities of the Volgograd region regarding the size of the planned indexes: sowing and planting of the forest on a 2,093 hectare area, an addition of 736 hectares to the area; assistance to natural forest renewal – 154 hectares, sowing on the territories of nursery gardens – 10.8 hectares; felling on a 1,468 hectare area; stocking liquid timber – 30,494 m³; nursing of young growth on 762 a hectare area; agro technical nursing of forestry on an 8,811 hectare area; forest seed stocking – 459 kilograms.

FOREST GUARDIANSHIP AND PROTECTION

During the forest territory's fire season of 2006 in the region, which is under the authority of

the Forestry-House of the Volgograd region, there were 112 fires on a 2,847 hectare area, where the average area of the fire was 25.4 hectares.

The fire hazards became critical in August and at the beginning of September, when the level of fire danger was determined as high on the territory of the region, and after August 15th, due to weather conditions, it became extremely critical (a level 5 fire hazard). This was accompanied by the lack of precipitation, as well as high temperatures and wind speeds. 75 fires (69 % of the all the fires) occurred during that period (August 6 – September 5) on a 2,443.4 hectare area (89% of the area), where 9 out of the 10 biggest fires ravaged an area of 1,919.9 hectares.

The administration deals with the questions of forecasting, preventing and liquidation of critical natural and technogenic situations. Cooperation is arranged with interested departments and organizations.

In 2006, forestry authorities implemented significant tasks related to organizing the fire prevention of forest stock:

1. Organization of fire resistant barriers – 18,514 km
2. Care of fire resistant barriers – 65,114 km
3. Building of fire prevention roads – 33 km
4. Maintenance of fire prevention roads – 98.7 km
5. Controlled, preventive searing of dry soil – 4,786 hectares.

TIMBER INDUSTRY COMPLEX

The industry complex of the Volgograd region accounts for more than 4,000 enterprises and organizations, which also include about 400 large and midsize organizations.

About 23% of the Volgograd region work force and 25% of basic funds are concentrated in the industry. The industry produces 30% of the gross regional output, provides more than 60% in taxes and other revenues in budgets of various levels, and contributes more than 90% of its exports. In 2006 the amount of



the industry's dispatched products reached 275 billion rubles.

The industry of the Volgograd region produces 2% of Russia's total manufacture and 30% of the Southern Federal District's manufacture.

The output share of the Volgograd region's industry in the natural volume of output of the Southern Federal District consists of: oil extraction – 26%; oil refining – 48%; electricity generation – over 26%; black metals, tractor and tire manufacturing – 100%; manufacturing of steel pipes – 63%; of chemical fibers and filaments – 65%; special oil-refining equipment manufacturing – over 80%.

In the last years the structure of the industry has changed tremendously. In 2006 the biggest industry's share consisted of: oil-refining – 31%, metallurgic production – 22.9%, extraction – 5.6%, gas, water and electricity generation and distribution – 9.4%, food production – 9.4%, chemical production and manufacture of rubber and plastic articles – 8.3%.

The forest manufacturing industry's share is 3.5%.

The investment activity of the Volgograd region is regulated by the law of the Volgograd region named "About the Investment Activity in the Volgograd Region". According to it, organizations realizing investment projects are stipulated for state support measures such as exemption, financing interest credit rate of banks in the amount of 2/3 of the rate of refinancing established by the Central Bank RF, administration of guarantees of the regional budget for credit opening, etc.

According to the total investment volume the Volgograd region takes the third place among the regions of the Southern Federal district after the Krasnodarsky krai and the Rostov region. In 2006 the volume of financial influx to the Volgograd economy was 50 billion rubles – that was three times more than 3 years before.

More than 100 investment projects have

been realized in the region. The investment portfolio of the region contains 10 huge projects for the total sum of more than 313.18 billion rubles.

THE PRIORITY ONES ARE

- Reconstruction of the Volgo-Donskoy navigable channel, the project cost is 150 billion rubles.
- Construction of the Volgogradsky chemical base "Kustik" OJSC, the project cost is 62,5 billion rubles.
- Construction of the motor road on the site. – Around the city Volgograd – the project cost is 40,6 billion rubles.
- Construction of the sanatoria and health resort on the lake Elton – the project cost is 8,3 billion rubles.

It is significant to mention that there are no investors in the region nowadays that have a plan to realize any considerable investment project in the timber industry.

The industrial processing of wood in Lower Povolzhya began in the second half of the 19th century. Back then, there were lots of sawmills in Tsaricino on the banks of Volga, which were processing wood and rafted it via the Volga river from the north.

During the Soviet era, sawmills were incorporated into several enterprises. The forest manufacturing industry of the Volgograd region continued growing during the 20th century, and in the 80s, it was represented by few large enterprises.

Since the Region did not have its own raw materials base, the raw materials were transported on the Volga by barges or by trains.

Production of the enterprises satisfied not only the needs of the Volgograd region, but also those of the nearest territories of the South of Russia, and Lower Povolzhya.

The overall fall of the forest manufacturing industry, reconstruction of the industry, and reduction of building construction and privatization during the 1990s have led to a serious reduction of wood processing. Many of the enterprises were forced to close.

Nowadays the forest manufacturing industry is slightly over 3.5% of the overall industrial production of the Volgograd region.

At the same time, the demand of forest manufacturing production is pretty stable. The enterprises, which managed to save industrial capacity and human resources, are moving forward in the industry with confidence.

Today there are over 70 enterprises which concentrate on forest manufacturing and furniture production. Generally these are companies which operate in the small business sphere. At the same time there are furniture enterprises, which were organized and successfully developed from small business enterprises into larger manufacturers. Nowadays, these enterprises produce great volumes of furniture using the latest technologies, new equipment and innovative design technologies. Amongst these companies are "Volgograd LLC," "Atelje Bratiev Karpovih" (Karpov Brothers workshop), the Kamishin enterprises "Lider-Mebel" (Furniture Leader LLC), "Bizness-Mebel" (Business Furniture LLC), "Kamishin Mebel" (Kamishin Furniture LLC), and the Volzhski enterprise "Volzhski Mebelni Kombinat" (Volzhski Furniture Complex). Among the enterprises which concentrate on the production of sawn timber and joiner's articles are the Open Joint-Stock Company "Dubovski Derevoobrabativayuschii zavod" (Dubovski Forest Manufacturing Factory), "Volgogradski Derevoobrabativayuschii zavod" (Volgograd Forest Manufacturing Factory LLC), the Closed Joint-Stock Company "Beketovski Derevoobrabativayuschii zavod" (Beketovski

Forest Manufacturing Factory), and "Volgogradskii fabrika dverei" (Volgograd Doors Factory).

Several large enterprises were formed as the result of privatization and reorganization of former government enterprises. Among these enterprises, it is noteworthy to mention the largest producers of furniture and plywood in the South of Russia are the Open Joint-stock Company "Volgogradmebel" and Closed Joint-Stock Company "Krasnoarmeskii Lesozavod".

The Open Joint-Stock Company "Volgogradmebel" is a stable, dynamically growing company in the furniture industry of Lower Povolzhye.

In 1883, a Tsarist district in the Saratov region spurred a large number of wood plants and saw mills, whose destiny had an interesting twist. After the revolution, 36 small wood plants were nationalized and jointed into one sawmill. Since 1920 its main type of manufacturing has been saw milling, while a total of 50% of production has been exported.

In the early 1950s, the manufacturing of furniture comprised 20.5% of the total volume of production (kitchen stools, wardrobes, chairs).

In 1963 a plywood shop was constructed and began production.

In the 1970s furniture became the main type of production.





As a result of technological re-equipment, and the construction and renovation of shops in the 1980s, the company became one of the largest furniture producing entities in Lower Povolzhye.

In 1988 the company was introduced into a list of export producing factories. This began a solidification of ties with West German and Italian companies.

1993-1995 were years of powerful technological modernization. In 1994, a wood processing shop was reconstructed and new equipment was installed, and new Italian furniture manufacturing processes from natural wood were established. Also using Italian technology, new latticed furniture production was introduced. In 1995 a new high output, fully automated, manufacturing equipment line was launched using the same Italian technology. And, as early as February, new kitchen furniture had retail presence.

Current modernization of production allowed the company not only "to survive" in economically bad times, but also to increase its product assortment, and to create new models, capable of competing on the Russian furniture market.

In 1997 the company began production of large assortment ranges of mirrors with original designs. The buyers had a choice of almost 100 different types of mirrors of various shapes and sizes. All of this was possible due to the implementation of newer technologies on specialized and unique manufacturing equipment from the Italian firm "Bavellone".

In 2004 a new lamination line was introduced allowing an increase of product assortment, and shortly began production of lamination plates of various color palettes. An introduction of Italian equipment and use of modern technologies permitted a higher quality of laminated plates, and therefore increased the longevity of its use. The year 2005 – production of plywood increased to a landmark 80 thousand cubic meters per year, and LDSP reached 40 thousand cubic meters. Dozens of furniture manufacturing plants around the country use the plywood created at the Irmana plant in Volgograd.

Today the Open Joint-stock Company of "Volgogradmebel" offers kitchen, cozy bedroom, children's and comfortable living room furniture.

For the achievement of organization excellence, stable growth in a period of uncertain economical times, the introduction of new technologies, and improvement of production quality, the Open Joint-Stock Company "Volgogradmebel" was given many international and national honorary awards. Products of the plant are included in the "100 Best Products of the Russian Federation" with special permission to the use of the seal on its product. Products of the Volgograd region are well known in such cities as Saratov, Samara, Rostov Don, Sochi, Krasnodar, Kurgan, Orenburg, Sterlitamak, Ufa, Saint Petersburg, Chelyabinsk, Tyumen, Vladivostok, all of the North Caucuses and many other cities. The company is also expanding to bordering countries.

The Closed Joint-Stock Company of "Krasnoarmeiskiy Lesozavod" was organized by the Communication Commission of the USSR in 1933 in the southern region of Volgograd city. Since then, the company has produced communication poles and traverses. The manufacturing plant was the sole producer in the communications system of the USSR. About 100 thousand cubic meters of wood were used per year.

All of the communications companies of the USSR used this product. The raw materials used in the manufacturing process were shipped by rafts from the Volgo-Kammenskiy basin, and in winter by rail from Siberian regions and northern European parts of Russia. In 1993 the company was privatized and a stock company was created. Two manufacturing processes are present in the company: the manufacturing of poles and the manufacturing of windows, doors and wood based structures.

At the present time the plant is the foremost wood processing company. Its sawmill uses modern equipment, a log frame cutter and multi cutter machines, which permit the production of export grade wood products. Joiner manufacturing produces casings, floor and window-sill boards. Using European technology, a manufacturing process of door and window frames was established. The joiner products are selling well on the internal market. The manufacturing plant is always expanding its product range. Construction of wooden modular housing is becoming a top priority. Company specialists have created and patented an original technology for the manufacturing of houses using glue-wooden structures. All of the necessary

laboratory testing has been conducted, including a three year practical experience. Houses have original architectural designs, are warm and well-lit, do not need expensive foundations, and are assembled using light equipment. The cost of their houses is about 20-25% lower than concrete ones. In October 2006, the first municipal village under the program name of "Young Family" was constructed.

On the pole manufacturing line from 1994 and until 2002, a reconstruction of wood processing machines was conducted. During this time seven new barking pole machines were produced and installed using German technology. Technology used for the manufacturing of the poles is unique and exclusive to the Russian Federation. It also allows for the attainment of the highest quality surface processing.

Manufacturing of poles is done according to the British standards of: BS – 1990, BS – 913/144. Soaking of poles is done using creosote in Rypina method autoclaves.

The poles are exported to, Libya, Yemen, Syria, Afghanistan, Azerbaijan, and Kazakhstan. On the national market the main recipients of the poles are: the Open Joint-Stock Companies "Volgogradenergo," "Donenergo," "Dagenergo," "Rostovenergo," "Dagsvyazinform," "Uzhnaja Telekommunikazionnaja Kompanija", branches of the Open Joint-Stock Company "Yuzhnaja Telekommunikazionnaja Kompanija": the Open Joint-Stock Companies "Volggradelektrosvjaz," "Stabropol'svjaz'inform," "Lipetskelektrosvjaz," "Rostovelektrosvjaz," "Tambovelektrosvjaz," and "Elektrosvjaz Respubliki Kalmykija".

Elena ROSHCINA

THE LEADING ENTERPRISES OF THE VOLGOGRAD REGION

Company's Name	Activity	Address	Contacts
ALEKSEEVSKY LESH0Z, FGU	Sawn timber production	403241, Volgograd region, Alekseevskaya stanitsa, Yubileiny per., 29 Russia	Ph.: +7 (844-46) 3-25-28 alex_leshoz@vlpost.ru
ALTERNATIVA, OJSC	Furniture industry: furniture	404520, Volgograd region, Kalach-na-Donu, Kirova Str., 37 Russia	Ph.: +7 (844-72) 33-267, 31-639, 33-373
BUMAZHNAYA FABRIKA, CJSC	Paper industry	400120, Volgograd, Karjernaya Str., 20 Russia	Ph.: +7 (844-2) 975-689, 975-690
BYKOVSKY LESH0Z, FGU	Sawn timber production	404060, Volgograd region, Mikhailovka, Krupskoy Str., 134 Russia	Ph.: +7 (844-63) 6-37-46, 3-19-65
DOZ BEKETOVSKY	Woodworking industry	400067, Volgograd, Nikitina Str., 4 Russia	Ph.: +7 (844-2) 42-04-16
DOZ DUBROVSKY, OJSC	Woodworking and furniture industry	404002, Volgograd region, Dubovka, Stepnaya Str., 1 Russia	Ph.: +7 (844-58)3-29-61, 3-29-68, 3-17-52
FOREST-SPLAV, CJSC	Manufacture of sawn timber, processing and transportation of sawn timber	400137, Volgograd, 30 let Pobedy boulevard, 17-A, office 64 Russia	Ph.: +7 (844-2) 91-00-98, 67-57-47 forest-splav@mail.ru
GLAESS, CJSC	Furniture industry: production of furniture and trade equipment	400005, Volgograd, Kommunisticheskaya Str., 64 Russia	Ph.: +7 (844-2) 23-30-08, 24-22-10 gless@gless.ru www.gless.ru
GRIZLI, CJSC	Woodworking equipment: manufacture of tools	404130, Volgograd region, Volzhsky, Avtodoroga (Highway) 6, str.6 Russia	Ph.: +7 (844-3) 410-541, 415-663 info@grizly.ru www.grizly.ru
IMPULSSTROIRESURS, CJSC	Trade in wood and wood products	400081, Volgograd, Avangarskaya Str., 86 Russia	Ph.: +7 (844-2) 36-86-34, 72-26-63
KAMYSHYNSKY LESH0Z, GP	Sawn timber production	403889, Volgograd region, Kamyshyn, Gagarina Str., 68-B Russia	Ph.: +7 (844-57) 4-55-53, 4-76-36, 4-79-50



Company's Name	Activity	Address	Contacts
KLETSKY LESHUZ, FGU	Sawn timber production	403560, Volgograd region, stanitsa Kletskaya, Seregina Str., 9 Russia	Ph.: +7 (844-66) 4-11-59, 4-12-34
KOTOVSKY LESHUZ, FGU	Sawn timber production	403801, Volgograd region, Kotovo, Mira Str., 69 Russia	Ph.: +7 (844-55) 4-34-69, 4-22-45, 2-15-94
KONDRATKOVA E.A. (IP)	Construction, industrial production of oriented shaving boards	400064, Volgograd, Yeryomenko Str., 70 Russia	Ph.: +7 (844-2) 72-65-58
KRASNOARMEISKY LESOZAVOD, CJSC	Woodworking industry: columns for communication lines and electricity transmissions, wooden housing construction	400029, Volgograd, Buguruslanskaya Str., 21 Russia	Ph.: +7 (844-2) 62-46-59, 62-4651 klz@avtlg.ru
NIKOLAEVSKY LESHUZ, GP	Sawn timber production	404030, Volgograd region, Nikolaevsk, Dzerzhinskogo Str., 28 Russia	Ph.: +7 (844-94) 6-15-96
NOVONIKOLAEVSKY LESHUZ, GP	Sawn timber production	403901, Volgograd region, pos. Novonikolaevsky, Zavodskaya Str., 1 Russia	Ph.: +7 (844-44) 6-14-25, 6-14-94
OLKHOVSKY LESHUZ, FGU	Sawn timber production	403650, Volgograd region, selo Olkhovka, Farm center, 9-A Russia	Ph.: +7 (844-56) 5-12-70
PETROV & K, CJSC	Furniture industry: production of furniture	400007, Volgograd, pr. Metallurgov, 30-A Russia	Ph.: +7 (844-2) 73-31-35, Fax: +7 (844-2) 73-11-32 petrov_k@interdacom.ru
PODTELKOVSKY LESHUZ, FGU	Sawn timber production	403402, Volgograd region, Kumylzhensky district, stanitsa Kumylzhenskaya, Lesnaya Str., 7 Russia	Ph.: +7 (844-62) 6-22-75
STAROPOLTAVSKY LESHUZ	Sawn timber production	404210, Volgograd region, selo Staraya Poltavka, Stepnaya Str., 19 Russia	Ph.: +7 (844-93) 4-31-33
SVETLA, CJSC	Production of parquet, staircase elements, profile products of wood	400021, Volgograd, Pisemskogo Str., 95 Russia	Ph.: +7 (844-2) 45-17-81, 45-18-84 svetla@vlink.ru www.svetla.ru
TELLUS, CJSC	Saw-mill manufacture, foreign trade	403343, Volgograd obl., Mikhailovka, Bessarabsky per., 2-A Russia	Ph.: +7 (844-63) 2-53-75, 2-59-68 tellus34@bk.ru
TSDM-PLUS, CJSC	Manufacture of furniture: production of furniture	400011, Volgograd, Bogdanova Str., 2, office 414 Russia	Ph.: +7 (844-2) 46-57-84 cdmplus@mail.ru www.cdm-plus.ru
URYUPINSKY LESHUZ, GU	Sawn timber production	403116, Volgograd region, Uryupinsk, Leshozny per., 1 Russia	Ph.: +7 (844-42) 2-02-62, 2-17-01, 2-16-87
VOLGOGRAD MEBEL, ZAO	Furniture industry: furniture, manufacture and realization of saw-timbers and wood planing plates	400059, Volgograd, Nikitina Str., 2 Russia	Ph.: +7 (844-2) 440-954, 442-667, 443-721 volgogradmebel@mail.ru www.volgogradmebel.ru
VOLGOPROMSERVIS, TPK	Building materials, purchasing activity	400081, Volgograd, Sosnovskaya Str., 28 Russia	Ph.: +7 (844-2) 266-021, 312-483
VZTDiN, CJSC	Manufacture of repair products for tractor and automobile mechanical engineering	400005, Volgograd, pr. Lenina, 59 Russia	Ph.: +7 (844-2) 23-02-12, 23-56-80, 23-59-44 marketing@vztdn.ru www.vztdn.ru
Y. GOLUBIN D. (IP)	Purchasing activity (wood)	400127, Volgograd, Yuzhno-Sibirskaya Str., 116 Russia	Ph.: +7 (844-2) 732-699
YUG BEREG, Ltd	Paper industry	400131, Volgograd, Kommunisticheskaya Str., 11, office 500 Russia	Ph.: +7 (844-2) 33-22-52, 33-23-38
ZHASKO, CJSC	Manufacture, sale of technological equipment for processing	400078, Volgograd, pr. Lenina, 67-1, office 303 Russia	Ph.: +7 (844-2) 73-09-57, 73-06-06 jasko@jasko.ru www.jasko.ru
VOLGOGRADMOTORSERVIS, OJSC	Repair of motor transportation techniques	400117, Volgograd, Zemlyachki Str., 27-B Russia	Ph.: +7 (844-2) 39-50-77, 39-44-65, 35-40-68 motoserv@avtlg.ru





SVERDLOVSK REGION

The Sverdlovsk region is located 2,000 kilometers eastwards from Moscow near the Ural Mountains, on the border between Europe and Asia. In terms of industrial indicators, the region is among the major economic drivers of the Russian Federation, and in terms of area – the largest in the Urals Federal District.

The Sverdlovsk region is located at the junction of Europe and Asia. Historically, its beneficial geographic position made the region a vital trade center. Lying at the heart of today's Russia, the region is linked with all other regions through a network of car, rail and air transport. Its well-developed transport system makes it a distribution center for industrial products.

The Sverdlovsk region rests on the eastern slope of the Ural Mountains and borders the Western Siberian lowland (Transurals). In the southwest, the region extends to the western slopes of the middle Urals. In the north (moving clockwise), it shares borders with the Republic of Komi, then Khanty-Mansi, the Tyumen region, the Kurgan region, the Chelyabinsk region, the Bashkortostan Republic and the Perm region. The highest peak of the Urals Mountains is the Konzhakovskiy Kamen peak (1,539 m). The middle Urals rather resemble a plateau: in the west, the height of foothills varies from 300 to 500 meters, in the east, the area has a high relief with medium altitudes from 200 to 300 m.

The climate is continental, with long and severe winters lasting from October to April. In wintertime, the temperature falls to -35°C . The summer, on the contrary, is short and warm with temperatures occasionally reaching up to $+35^{\circ}\text{C}$. Average temperatures in January vary from -20°C in the north to -15°C in the south and -17°C in the southeast; in July, the average temperature is $+16^{\circ}\text{C}$ in the north and $+19^{\circ}\text{C}$ in the southeast. Spring and summer are quite short. The average annual level of precipitation is 350–400 mm in the southeast and 500 mm in the north; in mountainous regions in the southwest, it exceeds 500–600 mm. These climatic peculiarities determine the duration of the vegetation period which is only 130 days.

Almost all of the region's territory is in the taiga zone. Coniferous forests and multiple rivers make

the natural landscapes especially attractive for tourism. So, the Sverdlovsk region boasts 18,414 rivers with an aggregate length of 68,000 km. The largest rivers are the Tavda, Tura, Iset, Chusovaya, Ufa, Sosva and the Lozva. Apart from this, the region has 173 groundwater sources of fresh water providing up to 1,408 thsd m^3 of drinking water daily, significantly increasing local water supplies. The majority of the region is forested (80% of the territory), mainly coniferous dominated by pine and spruce. Soils are podzolic, peat boggy, gley podzolic, grey forest, meadow soils, black earth and meadow black earth. Arable lands are limited and low-yield. The total area of agricultural lands in the Sverdlovsk region is only 2.4 mln ha.

The lack of high-yield lands is compensated for by huge supplies of natural and mineral resources. The Urals are the richest mineral region in Russia. They are sometimes called the Stone Belt due to their big deposits of precious and semiprecious stones, which are produced on the territory of the region. The Urals have rich mineral resources; more than 12,000 fields have been developed. Almost all elements of Mendeleev's Periodic Table of Chemical Elements are represented here; some deposits are big enough to ensure feasible industrial development. The range of mineral resources in the Sverdlovsk region includes iron, chrome, manganese and copper. The region is rich in gold, platinum, asbestos, and bauxites. As a result, the mining and steelmaking industries have always underpinned the local economy and they are still playing a vital role in it. It is not a surprise, that the Sverdlovsk region is the second industrial producer in Russia, due to its huge mineral resources and highly developed industry.

FOREST MANAGEMENT

In terms of timber stock, the Sverdlovsk region is 16th in Russia. As of 1 January 2006, forest lands occupied 15.8 mln ha and enjoyed a stock of 2.1

bln m^3 . The stock of mature and overmature timber is 743 mln m^3 , production stock – 543 mln m^3 , including 292 mln m^3 of conifers.

The actual stock of production forests is 445 mln m^3 , while merchantable wood (waste free) is – 400 mln m^3 , including 208 mln m^3 of conifers.

The Main Forestry Department comprises 49 FMUs and 268 forest districts employing 4,000 workers. The annual rate of forest renewal performed by FMUs is 17–20 thousand ha.

Coniferous stands are concentrated mainly in the northern, central and southern parts of the region.

TIMBER INDUSTRY

According to 2006 statistics, the Sverdlovsk region is among the top ten regions with the largest timber industrial potential. It is the 9th in commercial timber production and fiberboards, 7th in paper and cardboard, 6th in lumber, and 5th in glued plywood.

Average annual capacities in some industries increased in 2005 against 2000; the average growth rate was 100%. The most significant growth was observed in chipboards, paper bags, cardboard, paper, pulp and lumber. As of 1 January 2006, the average annual capacities were used as follows: fiberboards – 100%, plywood – 95%, offset paper – 88%, doors – 85%, pulp – 82%, cardboard crates – 80%, windows – 70%, lumber – 51%.

The output of small enterprises increased six times.

The same period saw a notable growth in the volume of export: paper – 16 times, fiberboards – 9 times, chipboards – 8 times, commercial timber – 4.5 times, cardboard – 3 times, lumber – 1.8 times, and glued plywood – 1.6 times. About 80% of exported products go to countries other than former Soviet ones. The volume of wood-based products exported in 2006 was \$143 mln, while those imported only reached \$28.4mln.

The structure of export is as follows: commercial timber – 11% of the output, lumber – 31%, plywood – 56%, chipboards – 32%, fiberboards – 22%, paper – 17%, and printing paper – 14%.

Former Soviet countries import mainly fiberboards, chipboards and paper.

The major trade partners are the USA, Finland, Sweden, Italy, Egypt, Iran; and the post-Soviet countries of Kazakhstan, Azerbaijan, and Uzbekistan.

BIG ENTERPRISES

The woodworking and pulp & paper industries of the Sverdlovsk region report about 650 enterprises operating as of 1 January 2005, among which 47 are big and medium ones, and the rest are small businesses.

OJSC Fankom. The enterprise was originally a Verkhne-Sinyachikhinskiy plywood plant established in 1972. In January 1993, the plant was transformed into OJSC Fankom. In 1995, the enterprise set up its logging department. Today, OJSC Fankom is the biggest timber logger producing more than 500 thsd m^3 of timber per year. The logging equipment is refurbished by 30% every year. Timber harvesting is accompanied with forest regeneration operations: 350–400 ha of young stands are planted and sowed annually; the company controls unauthorized cutting.

The company is engaged not only in timber production but also in the heat and water supply of the settlement V-Sinyakhina, acting as a town forming enterprise.

Currently, the company is one of the biggest producers of high-quality plywood in Russia, and is included in the list of ten biggest enterprises in the Sverdlovsk region. According to research from the 2003 Russian Association of Managers and Commersant Publishing House, the 1,000 Most Professional Managers Rating included 20 managers of timber companies, among them Belyalov Kamil Anvarovich – President of Fankom.

The annual volume of trade exceeds 1 bln rubles, which is 20% of the timber turnover of the region. The plant is a permanent member of the most successful enterprise ratings in the region.

The enterprise is equipped with Felman, Holzma, and Raute wood machines.

The company cooperates with more than 50 enterprises in Russia. Its products are well-known in Kazakhstan, Tajikistan, Kyrgyzstan, and other former Soviet republics. The major partners of the company, however, are located in the USA, Great Britain, Egypt, Scandinavia, Canada and Italy.



Though the rate of production development exceeds the average figures, the company does not intend to stay at that level. After the commissioning of a large-sheet plywood production line in 2007, the company is planning to augment its output up to 170 thsd m³ per year.

Turinsk PPM paper was first produced by the stapler Osip Konovalov who established a small clandestine paper factory. Turinsk paper was looked at as a gimmick and sold well at the Irbitsk fair. The Konovalov's business was continued by Ivan Kolmogorov and Maxim Pokhodyashin at another factory located 5 miles from Turinsk, on the other bank of the river. That factory was mentioned in the correspondences of Decembrists I.I. Puschin and I.D. Yakushin.

Today, Turinsk PPM is the leader in the pulp & paper, and forest and woodworking industry of the Ural-Siberia region.

The product lines of the enterprise are as follows:

- Offset printing paper
- Base paper for paperhanging
- Paper for office equipment
- Paperhanging
- Fiberboards
- Sawmilling and woodworking products

The mill has a vital social value for the Turinsk district. It employs about 20% of the town's working population, and tax payments account for 60% of the income of the local budget.

Turinsk PPM developed due to the unified efforts of workers, specialists and managers. This is largely because of the fact that the mill is in the employee's ownership.

For the previous ten years, the enterprise underwent a number of transformations. OJSC Turinsk PPM is a unique company from the point of view of legal aspects. There are only two people's enterprises operating on the territory of the Sverdlovsk region. The status of people's enterprise requires that most workers be shareholders. The law expands their rights regarding actual participation in the company's management and gives them the right to vote to solve principal business issues at shareholders' general meetings. The company's staff is 1,648 people.

The major vector of the company's development is the reduction of energy constituent in product cost, adding value to timber, increasing product quality, modern design of packing, and reducing negative impact on the environment.

Sverdles Industrial Association. This is one of the biggest logging enterprises in the region with the following output:

- Timber – 320 thsd m³
- Lumber – 70 thsd m³
- Sleepers – 100 thsd pieces
- Annual turnover – 570 mln rubles.

IA Sverdles includes five logging enterprises based in the Sverdlovsk region: The Karpinskiy Forest Plant, and the Vogulskiy, Kashkinskiy, Severouralskiy and Turinskiy Forest Enterprises.

These enterprises cover the region's northwest, southwest and east, including mountainous forests composed of spruce, fir and birch on the eastern slope of the Urals and lowland forests of the Transurals.

Sverdles supplies timber to the domestic market, providing raw materials for the leading plywood and pulp & paper mills, construction companies, steelworkers, machine-building plants and RF Ministry of Transport. The biggest customers of the association are:

- Mariy-Al PPM
- Solikamsk PPM
- OJSC Fankom
- Perm Plywood Plant
- RF Ministry of Transport.

Sverdles exports its products to Finland, Spain, Estonia, Tajikistan, Kazakhstan and Cyprus.

The company provides assistance in equipment procurement and the marketing of roundwood and lumber to logging and processing enterprises of the Sverdlovsk and Tyumen regions.

Novolyalinskiy PPM CJSC This is the biggest Ural enterprise producing bag and wrapping paper as well as various paper bags – glued or sewn, with or without flexi-print marking (two-color). The enterprise also produces corrugated layers for cardboard and waterproof cardboard for various purposes.

Products of the PPM are in demand in all Russian regions and neighbouring countries: Kazakhstan, Uzbekistan, and Azerbaijan. Among its regular customers are Russian cement plants, steelmaking plants, industrial enterprises, and cotton producers of Uzbekistan. During the previous years, the enterprise was modernized and underwent reconstruction including the overhaul of shops and purchasing of new equipment.

Lobva Timber Plant. The plant was built in 1910 in the north of the Sverdlovsk region. At present, it is a highly automated logging and woodworking enterprise producing premium-quality lumber, 97% of which is exported.

Timber is harvested on the territory of the Novolyalinskiy and Ivdelskiy FMUs with an annual capacity of 260 thsd m³. The overall length of forest roads is 330 km, including 144 km of round-the-year roads allowing timber extraction in all seasons.

Two sawmills equipped with the most advanced machinery process up to 250 thsd m³ of sawn timber annually. The equipment was procured from Weinig, HEW SAW, VALMET, GRE-CON, and others.

Up to 100 thsd m³ of polyethylene packed lumber is exported to European countries (Germany, France, Italy, Denmark, and Estonia) and Middle-Eastern countries (Syria, Egypt, Jordan, and Israel). The remaining lumber is used for adding value and manufacture of planed products for construction purposes: lining (clapboards), flooring, plinth, casings, etc.

The enterprise produces up to 5 thsd m³ of a variety of quality planed moldings. The plant constantly improves techniques and quality of output, and purchases new advanced equipment. The sawmill's raw materials feeding facilities are being reconstructed to change from water-based sort yards to ground based ones.

Additional installation assembled in April, 2007 at the GIGA-03 sawmilling line will allow augmenting the output of lumber by 5%. A new harvesting technology using a harvester-forwarder scheme is being introduced in 2007.

The woodworking shop is planned to be reconstructed in 2009. The reconstruction will include

installation of new drying chambers and a Weinig line for the manufacture of planed products with a rated capacity of 1,500 m³ per month. Construction of a large sheet plywood plant for processing hardwood timber with a rated capacity of 50 thsd m³ per year has begun.

The company is elaborating a project of a shop for the production of timber frame houses. The project is aimed to supply affordable houses at a price of 10–14 thsd rubles per square meter. The cost will be lowered by using moldings, low-grade lumber and construction plywood manufactured by the enterprise.

A business plan of chipboard production facilities with a rated capacity of 800 m³ per day has been developed.

Lobva Timber Plant has achieved the status of «Leader of the Russian Economy» and has been awarded with diplomas from the RF Ministry of Economic Development, and many exhibitions and fairs.

First Timber Company. The enterprise is a production department of the SKM-Mebel Group of Companies and produces:

- Laminated chipboards and melamine impregnated edge band (sole distributor – TH SKM-Mebel);
- Ground chipboards, sheets 3,500×1,750×16;
- Lumber by GOST 26002–83 and GOST 8486–86;
- Longitudinally glued pine products (planed board, crate bar, planed bar, flooring, casing, plinth, lining, block house) with a moisture content of 10–12%.

FTC was founded by taking over the Alapayevskiy Woodworking Plant facilities established in 1929 and is located in the city of Alapayevsk, Sverdlovsk region, which is 160 km from Yekaterinburg.

Since 2004, FTC has been implementing a large scale investment program of production facilities reconstruction, which allowed a tenfold increase of the output.

To ensure the premium quality of products, FTC installed new equipment, i. e. a Weinig line for longitudinal glued products; laminating equipment; intermittent kilns; a small diameter log milling line; a Paul multi-blade circular saw; an automatic grading line, etc.



After modernization, the enterprise joined the top five woodworking companies of the Sverdlovsk region. In 2005, FTC was accepted as a member by the Ural Union of Timber Producers, Ural Chamber of Commerce and Industry and the RF CCI.

FTC products sell on the domestic market and are exported to the countries of North Africa, Europe, CIS and the USA.

INVESTMENT CLIMATE

The increase in the rating of the Sverdlovsk region to «BB» (stable) from 1 January 2007, the growth dynamic of socio-economic indicators, the significant forest resources, the potential capabilities of the timber industry complex of the region, and its steadily strengthening financial state, confirm the reliability of the investment climate in the industry.

In 2002, the Sverdlovsk government confirmed a plan for the development and organization of the forestry, wood processing and pulp and paper industries in the Sverdlovsk region for the period up to 2015, which was changed to a five-year period (2006–2010) in 2005. In that year, the decree «On Investment Projects of Organizations of the Timber Industry Complex of the Sverdlovsk Region for 2006–2008» was passed.

Main areas of saw-milling development:

- 1) Increase in production of sawn timber for making furniture and manufacture of carpentry items and housing construction.
- 2) Processing of sawn timber on planing machines to manufacture parts of various kinds for mass and individual construction, renovation and architectural design for automobile, train and ship construction.
- 3) Manufacture of glued items and semi-manufactured items (panels and beams) for furniture, carpentry items, building constructions, floors and domestic use.
- 4) Manufacture of glued wooden constructions, and also shaped beams for various uses, and the manufacture of various elements for individual houses, and house and garden sections.

Investment projects include a solution of the technological, economic and ecological problems of

the timber industry complex in close coordination with other industries of the region's economy: civil housing construction, automobile and railway transport, the fuel and energy complex, the housing and communal services, agriculture and forestry.

In plywood manufacture, the project envisages the construction of a new factory at CJSC Fankom for manufacturing conifer plywood with an output of 80,000 m³ a year. Preliminary studies on building the plywood factory are currently being carried out in Vostochny village in the Serovsky region.

It is proposed to use technology for producing fuel for bio energy (wood granule pellets, fuel briquettes of compressed left-over wood) and for producing electrical and thermal energy to use cogeneration power plants, and also to increase the effectiveness of energy equipment used at forestry industry enterprises.

In the long-term perspective, forestry complex enterprises in the region should be focused on developing the processing of deciduous wood. There needs to be a significant increase in capacity for manufacturing plywood, glued items, wallboards, paper and cardboard, above all from deciduous wood.

Increasing the volumes of processed deciduous wood will enable the development of forestry energy.

A strategic area of development in the timber industry complex of the Sverdlovsk region is the priority expansion of deep chemical-mechanical and mechanical processing of timber with the maximum involvement of small-scale, low quality and soft-wood timber. A compulsory condition in justifying the volumes of harvesting and haulage of timber is its full compliance with the requirements of sustainable and constant forest utilization, conservation, and also the introduction of elements of international voluntary forest certification at leaseholding enterprises.

Scientific research should ensure the effectiveness of prospective areas in forestry industry technologies on the basis of using high technology products, certification of forest utilization and the development of forestry energy.

As a result of measures undertaken to improve the structure of production, and anticipating the

development of the deep processing of timber, the timber industry complex of the region will achieve the following growth in production in 2010 in comparison with 2005: wooden house construction by 40 times, plywood by 1.7 times, woodchip board by 1.8 times, cardboard by 1.6 times, sawn timber by 1.4 times, and paper by 1.2 times.

The structure of production will change significantly in the organization of manufacturing new forms which comply with international standards:

- 1) In sawmilling production, there will be a growth in the production of high quality specialized sawn timber, including export timber, on the base of modern imported equipment.
- 2) In board production it is planned to modernize the production lines for manufacture

of laminated chipboard, which are in high demand in the near abroad market (60–65,000 m³ at OJSC Tavdinsk FK).

- 3) Plywood production is planned to be manufactured from coniferous timber (80,000 m³ at the CJSC Fankom).
- 4) In wood-working production there will be a significant increase in the output of glued timber and construction items, including those for house construction.
- 5) A significant increase is planned in the volumes of biofuel produced from low-grade timber and wood waste with the production of thermal and electrical energy at cogenerational plants (experimental plants are being tested at the Seversky experimental timber enterprise and at the Novolyalinsky Pulp and Paper Combine).

MAJOR INVESTMENT PROJECTS

Organization of modern production of laminated chipboard

Brief description of the project	Construction of a laminated chipboard factory. Manufacture of laminated chipboard with equipment from the German company Dieffenbacher (continuous pressing technology) Production capacity – 330,000 cubic meters per year
Stage of project realization	A property complex has been acquired on the territory of the Novoalapaevsk metallurgical factory in Alapaevsk, and an additional section of land will be organized for the new factory, and planning and pre-contract work with the equipment supplier are underway.
Location of project realization	Alapaevsk, Sverdlovsk region
Name of investment subject	CJSC Alapaevsky zavod drevesnykh plit
Goal of investment project	– release of a new modern product on to the market – different sized laminated board of E1 emission class – expansion of geographic presence – making additional profit – creation of new jobs ~300 – closure of ecologically harmful production within city limits – resolving problems of recycling large amounts of waste from sawmilling and woodworking – development of furniture industry
Name of products or services produced (depending on type of activity)	Laminated chipboard with a width of 1,750 to 2,070 mm, a length of 2,440 to 3,500 mm and a thickness of 8 to 40 mm, E1 emission class
Expected results	Output of chipboard – 1,000 m ³ per day
Additional information	
Name of head of organization of investment object	Andrei Borisovich Ustyugov, General Director of the CJSC Alapaevsky zavod drevesnykh plit
Documents showing level of project development (technical and economic justification, technical and economic report, business plan etc.)	Business plan; conclusion by independent expert
Total project cost	3,411,000,000 rubles
Term of project realization	2.5–3 years – investment phase, 25 years – life cycle
Investment period	2 years 10 months
Payback period	8 years
Economic indicators for the project:	
– net present value (NPV)	2,459,594,000 rubles for 15 years
– internal rate of return (IRR)	23%
– benefit-cost ratio,	1,8
Name and position of curator from the investment subject	Andrei Borisovich Ustyugov, Project Head Supervision carried out by Vladimir Gurevich Prolisko, General Director of the SKM-Mebel Group of Enterprises


Production of oriented strand boards (OSB) with output of 200,000 m³ a year

Brief description of the project	Construction of an operation for manufacturing oriented strand boards (OSB). This manufacturing technology makes it possible to process timber of medium and low quality and wood waste into high-quality boards which are used in construction, furniture manufacture and the packing industry. The technology of manufacture makes it possible to process 600,000 m ³ per year of coniferous (pine) and deciduous (aspen) timber of medium and low quality. For the realization of this construction project, the Turinsky Pulp and Paper Mill has free land space, an electric substation, roads, engineering communications and heating.
Stage of project realization	Stage of preliminary gathering of information
Location of project realization	Turinsk, Sverdlovsk region
Name of investment subject	CJSC Turinsk Pulp and Paper Mill
Industry	Pulp and paper industry, woodworking
Goal of investment project	The new production will provide the region with high-quality wood panels. New jobs will be created in panel production and in the logging industry of the region as a whole.
Name of products or services produced (depending on type of activity)	OSB is a compact pressed wood panel made of large oriented chip wood from coniferous and deciduous trees. OSB is designed for universal application in dry and damp rooms, and in load-carrying and heavily loaded structures. It differs from traditional chipboard by its heightened mechanical properties, its high water resistance and uniformity of structure, and is much better at holding nails and screws. OSB is quality sheet material which can be used in construction for realizing national projects of «Accessible and comfortable housing», as a part of the development of the forestry complex of the Sverdlovsk region.
Expected results	Total revenue will be 2,057 million rubles per year, with a net profit of 277 million rubles.
Additional information	
Name of head of organization of investment object	Aleksandr Aleksandrovich Konovalov, General Director of CSJC Turinsk Pulp and Paper Mill
Documents showing level of project development (technical and economic justification, technical and economic report, business plan etc.)	There are no such documents from specialist organizations. A calculation of the effectiveness of creating wood panel production was made on the basis of data gathered on the internet and analytical surveys on the production of OSB panels.
Total project cost	The cost of the project with a capacity of 200,000 m ³ per year requires investments of 2,400 million rubles.
Term of project realization	1.5 years
Investment period	1 year
Payback period	7 years
Name and position of curator from the investment subject	Vadim Andreevich Bychkov, Technical director of CSJC Turinsk Pulp and Paper Mill

Construction of an operation to manufacture housing frames

Project realization stage	Purchase of equipment
Location of project realization	Lobva village, Novolyalinsk city district
Name of investment subject	OJSC LIK Lobva
Industry	Woodworking
Goal of investment project	Manufacture of affordable housing (costing 10–14,000 rubles per meter squared). Use of molded items and sawn timber of own manufacture, and also construction plywood of own manufacture
Name of product	Housing frames
Expected results	1st stage, 50 houses (105 million rubles); 2nd stage, 100 houses (210 million rubles); 3rd stage, up to 200 houses per year (420 million rubles)
Additional information	
Name of head of organization of investment object	Yury Vitalevich Ryabkov, Director of LIK Lobva
Documents showing level of project development (technical and economic justification, technical and economic report, business plan etc.)	Khomag company project and business plan
Total project cost	65,000,000 rubles
Term of project realization	1.5 years
Investment period	1.5 years
Payback period	2 years
Economic indicators for the project:	
– net present value (NPV)	63 million rubles
– internal rate of return (IRR)	30% from use of internal funds
– benefit-cost ratio	0.3
Name and position of curator from the investment subject	Igor Anatolevich Cheredinov, General Director of LIK Lobva
Construction and opening of plywood factory	
Project realization stage	Construction of operations and installation of equipment
Location of project realization	Lobva village, Novolyalinsk city district
Name of investment subject	OJSC LIK Lobva
Industry	Woodworking
Goal of investment project	Processing of deciduous wood into a finished product
Name of products or services produced (depending on type of activity)	Plywood from 6 to 23 mm thick, furniture items
Expected results	1st stage, 408 million rubles, 2nd stage, 555 million rubles
Additional information	
Name of head of organization of investment object	Yury Vitalevich Ryabkov, Director of LIK Lobva
Documents showing level of project development (technical and economic justification, technical and economic report, business plan etc.)	Imal project, technical documentation
Total cost of project	700,000
Term of project realization	2 years
Investment period	2.5 years
Payback period	4 years
Economic indicators for the project:	
– net present value (NPV)	144.3 million rubles
– internal rate of return (IRR)	27%
– benefit-cost ratio	0.27
Name and position of curator from the investment subject	Igor Anatolevich Cheredinov, General Director of LIK Lobva



Construction of project to produce chipboard with capacity of 250,000 m³ a year

Project realization stage	Working with investors
Location of project realization	Lobva village, Novolyalinsk city district
Name of investment subject	OJSC LIK Lobva
Industry	Woodworking
Goal of investment project	Complete processing of waste from sawmilling and logging
Name of products or services produced (depending on type of activity)	Chipboard, laminated chipboard, furniture parts made of chipboard
Expected results	Yearly production volume of 2,000 million rubles
Addition information	
Name of head of organization of investment object	Yury Vitalevich Ryabkov, Director of LIK Lobva
Documents showing level of project development (technical and economic justification, technical and economic report, business plan etc.)	Business plan
Total cost of project	214,6380
Term of project realization	3 years
Investment period	3 years
Payback period	7.2 years
Economic indicators for the project:	
- net present value (NPV)	293 million rubles
- internal rate of return (IRR)	22-25%
- benefit-cost ratio	0.25
Name and position of curator from the investment subject	Igor Anatolevich Cheredinov, General Director of LIK Lobva

Construction of pulp and paper combine in the Sverdlovsk region

Brief description of the project	The construction of a pulp and paper combine. In the manufacture of pulp and chemicals recovery, the best existing technology will be used, ensuring that all norms of allowable emissions are observed.
Project realization stage	Preliminary project studies
Location of project realization	Tavdinsk city district, Sverdlovsk region
Industry	Woodworking
Goal of investment project	The construction on the territory of the Sverdlovsk region of a modern, ecologically safe pulp and paper mill using up to 70% of deciduous timber, which will manufacture the following: - bleached pulp (coniferous and deciduous); - uncoated offset paper; - coated offset paper; - uncoated office paper.
Name of products or services produced	bleached pulp, offset paper (uncoated, coated), office paper
Expected results	Manufacture of unbleached pulp – 581,600 tons per year
Additional information	
Documents showing level of project development (technical and economic justification, technical and economic report, business plan etc.)	Preliminary project studies
Total cost of project	Around 1 billion euros
Term of project realization	4 years
Investment period	4 years
Economic indicators for the project:	
- net present value (NPV)	\$711.0 million
- internal rate of return (IRR)	17%
- benefit-cost ratio	1.6

Enterprise investment projects of the forest industry complex in the Sverdlovsk region can be found on the Internet on the Investment portal for the Sverdlovsk region: sverdl-invest.midural.ru

For questions relating to investment projects, please consult the Department of Investment Policy and the Currency and Economic Department of the Sverdlovsk Region Ministry of Economy and Labor: (343) 377-16-68.

Based on materials provided by the Department of Investment Policy, the Currency and Economic Department, and the Head Forestry Office of the Sverdlovsk Region, and also from materials from Internet sources.

THE LEADING ENTERPRISES OF THE SVERDLOVSK REGION

Company's Name	Activity	Address	Contacts
AGROGAZSTROY, CJSC (NGT- Holding)	Production of plank. Timber export, construction of gas pipeline and boilers	620049, Sverdlovsk region, Yekaterinburg, Pervomayskaya Str., 122, Russia	Ph.: +7 (343) 372-87-36, 345-25-84 agrogas@yandex.ru
ART-LES, CJSC	Woodworking industry, production of plank and molded strip. Woodcutting	623780, Sverdlovsk region, Artyomovskiy, Prilepskogo Str., 2A Russia	Ph.: +7 (343) 372-25-02, (343-63) 27-0-62 art-les@mail.ru www.art-les.ru
ARTEL LENIN AND PECHNIK, CJSC	Construction and projecting of log houses and saunas starting with typical finishing by individual projects. Production of furniture	620007, Sverdlovsk region, Yekaterinburg, Pribalriyskaya Str., 33, office 115 Russia	sergey910@mail.ru
ECO-ENERGY, OJSC	Manufacture, supply, assembly, launching and servicing of equipment for granules production and pellets.	620000, Sverdlovsk region, Yekaterinburg, Bebelya Str., 17, office 207 Russia	Ph./fax: +7 (343) 2222-131, zao@eco-en.ru www.eco-en.ru
FANTOM, CJSC	Woodworking industry Plywood production	624690, Sverdlovsk region, Alapaevskiy district, p. V-Sinyakhina, Kedrovaya Str., 1 Russia	Ph.: +7 (343) 372-71-10, 372-71-11 fankom@fankom.ru fankom.ru
FENTSTER-AG, CJSC	Woodworking industry. Production of plank: glued timber, wooden euro-windows. Machines and equipment	620026, Sverdlovsk region, Yekaterinburg, Krasnoarmeyskaya Str., 72 Russia	Ph.: +7 (343) 377-51-11, 377-51-12, okno@urs.ru www.fenster-ag.ru
FIRST INDUSTRIAL COMPANY	Shaving board production, laminating, wood-sawing	624600, Sverdlovsk region, Alapaevsk, Liza Chaykina Str., 6 Russia	Ph.: +7 (343-46) 3-31-57, 3-31-28, 3-31-23, 3-31-49, 3-31-58 plpk@mail.ru www.skm-mebel.ru
INSTRUMENT-CENTER, CJSC	One of the hugest centers for the realization of woodworking, metal-working, abrasive and electro-instruments and tools	620028, Sverdlovsk region, Yekaterinburg, Tatischeva Str., 84, office 1 Russia	Ph./fax: +7 (343) 373-44-33, sherbakov_b@mail.ru, office@i-center.com
LES-INVEST, CJSC	Furniture industry (doors and windows)	620102, Sverdlovsk region, Yekaterinburg, Belorechenskaya Str., 18A Russia	Ph.: +7 (343) 233-67-06, 233-66-39 les-invest@k66.ru www.les-invest.ru
LITEL LPK, CJSC	Woodworking industry	620024, Sverdlovsk region, Yekaterinburg, Simskaya Str., 1 Russia	Ph.: +7 (343-2) 56-87-57, 56-87-69 litek@ural.ru
LPK-LOBVA, CJSC	Complex lumbering and woodworking enterprise	624420, Sverdlovsk region, Lobva, Zavodskaya Str., 4 Russia	Ph.: +7 (343-18) 3-11-09 Fax: +7 (343-18) 3-10-72, lobva@serov.ru www.lobva.ru
NEVOLYANSKY PULP-AND-PAPER MILL, CJSC	Sack and packing paper production, corrugated lays for cardboard production	624400, Sverdlovsk region, Novaya Lyalya, Lenina Str., 2 Russia	nzbk@uraltc.ru www.ncbk.ur.ru
PROMEXPO, CJSC	Production of plank and furniture	623100, Sverdlovsk region, Pervouralsk, Lenina Str., 21/1 Russia	Ph.: +7 (343-92) 45-837
REZHEVSKY LESKHOZ, OGU	Lumbering	623750, Sverdlovsk region, Rezh, P. Morozova Str., 62 Russia	Ph.: +7 (343-64) 2-17-76, 2-22-71, 2-21-41
SK URAL-PROGRESS, CJSC	Woodworking industry, production of plank	623418, Sverdlovsk region, Yekaterinburg, Kuybisheva Str., 48 b Russia	Ph.: +7 (343) 251-33-75, 251-67-39, hkprogress@mail.ru
SODIS, NPF, CJSC	Woodworking and drying equipment, production of drying kilns	620085, Sverdlovsk region, Yekaterinburg, Monsterskaya Str., 5 A, office 2 Russia	Ph.: +7 (343) 345-85-33, sodis@ru66.ru www.s-o-d-i-s.com
SVLEDLES, PRODUCTION ASSOCIATION, OJSC	Woodworking industry and plank production. Timber export	620026, Sverdlovsk region, Yekaterinburg, Michurina Str., 132 Russia	Ph.: +7 (343) 261-24-10, 261-38-38 export@svles.ru www.svles.ru
SVRDLOVSKY LESKHOZ, GU	Lumbering	624030, Sverdlovskaya region, posyolok Beloyarskiy, Kluchevskaya Str., 14 Russia	Ph.: +7 (343-77) 2-12-45, 2-19-90
TAVDIN'S MECHANICAL PLANT, CJSC	Logging machines: production of trains-wood cargo vessels, trailers, trawls and chip trucks	623955, Sverdlovsk region, Tavda, Frunze Str., 2 Russia	Ph.: +7 (343-60) 22-836, (343-60) 20-572 tmz2005@yandex.ru www.tavdamz.ru
TAVDIN'S VENEER PLANT, CJSC	Woodworking industry. Trade (export) in sawn timber: birch and aspen plywood, plywood board	623955, Sverdlovsk region, Tavda, Kovalya Str., 4	Ph.: +7 (343-60) 300-30, 300-27, info@tfk.ru www.tavda.ru
TURINSKY PULP-AND-PAPER MILL	Hardboard production, multi-color wallpapers, offset and writing paper etc.	623900, Sverdlovsk region, Turinsk, Dzerzhinskogo Str., 2 Russia	Ph.: +7 (343-49) 2-43-75, 2-40-78, 2-41-70, 2-21-66 mar@tcbz.uralnet.ru www.tcbz.uralnet.ru

URALDREV-INTO, NPVF	Drying equipment	620049, Sverdlovsk region, Yekaterinburg, Pervomayskaya Str., 109, office 411 Russia	Ph.: +7 (343) 374-26-78, 374-80-50, uraldrev@epn.ru, www.uraldrev.ur.ru
URAL'S PLANT OF THE CHEMICAL AGENTS, OJSC	Production of plank	624090, Sverdlovsk region, pos. Verkhnyaya Pishma, Leninf Str., 131, Russia	Ph.: +7 (343-68) 43-142, 34-428
URALSKY LES, CJSC	Production of plank: trimming coniferous plank and charcoal	620000, Sverdlovsk region, Yekaterinburg, Novinskaya Str., 13 Russia	Ph.: +7 (351) 725-08-19
URALSKY LESOPROMISHLenny TD, CJSC	Production of plank and timber export	620017, Sverdlovsk region, Yekaterinburg, Artinskaya Str., 12 b Russia	Ph.: +7 (343) 334-97-59, Fax: +7 (343) 379-53-74
YEKATERINBURG'S FORESTRY MACHINES, CJSC	Logging machines	620024, Sverdlovsk region, Yekaterinburg, Elizavetinskoye highway, 29 Russia	Ph.: +7 (343) 255-42-42, 264-44-06, 255-42-41, 255-43-00, lesmash@sky.ru, www.uralstar.com

THE KHANTY-MANSI AUTONOMOUS DISTRICT



The Khanty-Mansi Autonomous District – Yugra – is located in the central part of the West-Siberian plain, and has an area of 534,800 m². The plain is crossed by low-rise mountain ridges, and the west is collared by the eastern slopes of the North and Polar Urals.

In the north, the district shares a border with the Yamalo-Nenets Autonomous District, in the northwest – with the Komi Republic, in the southwest – with the Sverdlovsk region, in the south – with the Tobolsk and Uvatsk districts, and in the southeast – with the Tomsk and Krasnoyarsk regions.

The two biggest Siberian rivers – Ob and Irtysh – pass through the district territory. The northern part of the district is located in the permafrost zone.

The climate is strongly continental, with a severe winter and a short summer.

The winter season lasts seven months, from October to April. Annual precipitation varies from 400 to 550 mm. The snow line is from 50 to 80 cm. The precipitation peak is in July, with about 15% of the total amount.

The number of Khanty-Mansi's permanent residents is 1,433,100 people (as of 1 January, 2003). 123 nationalities including Slavonic, Turk, and Finno-Ugrian groups are represented in the district. The autonomous district is a historical living place for its native people, represented by three small-numbered nations – khants, mansi and forest nents.

The natural resources of the district are unique and variable, including oil, gas, ores, etc. A special niche is occupied by the forest.

FOREST FUND

The total area of forest fund lands as of 1 January, 2007 is 48.9 million hectares, or 3.8% of the RF forest fund. Depending on natural and historical conditions, as well as

economic factors, the forests are divided into the following classes:

- protective forests (Group I) 2.6 million ha, or 5.3%, and
- production forests (Group III) 46.3 million ha, or 94.7%, including two million hectares of reserve forests.

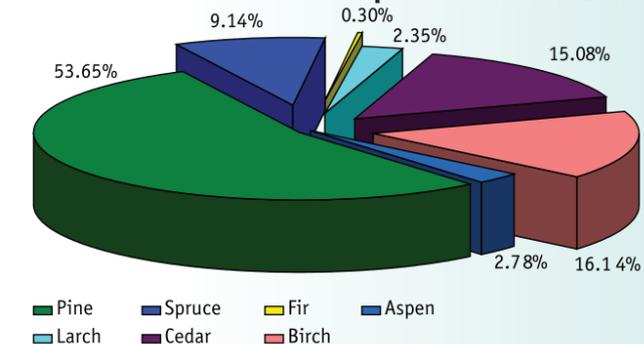
The forested area is 53.6%.

The forested area is 27.8 million hectares (57% of the forest fund), including 0.2 million hectares of forest plantations, and an unforested area of 0.2 million hectares. Forested and unforested areas make up the forest lands (28.0 mln hectares or 57%).

The forest fund comprises non-forest lands (cropland, roads, firebreaks, hayfields, grazing land, bogs, and other uses) accounting for 43% of the total forest fund area (20.9mln hectares), which is dominated by bogs (83%).

In terms of composition, these forests are coniferous (80%): the predominant species are

Figure 1
Distribution of forest fund lands by predominant species as of 1.01.2007





pine (54%) and cedar (15%), as well as small leaved hardwoods (20%) including birch (16%) and aspen (3%).

The age structure of the forest is inhomogeneous: mature and overmature stands occupy 56%, maturing stands – 13%, middle-aged – 20%, and young growth – 11%.

The stock is 3.1 billion m³, including 1.6 billion m³ suitable for exploitation.

The composition of forests is mainly determined by density:

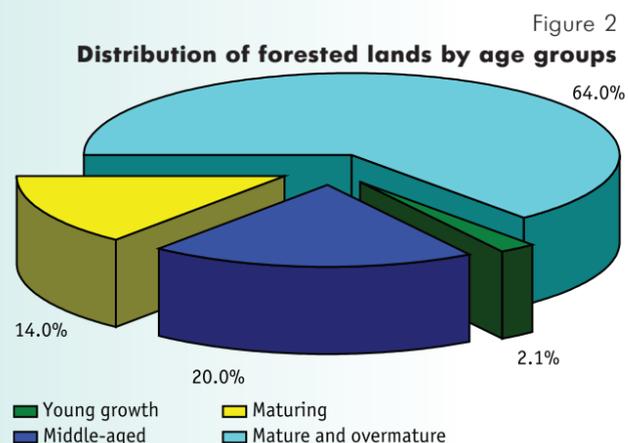
- Low-density stands (0.3–0.4) account for approximately 24.8% of forested lands
- Medium-density (0.5–0.7) – 63.3%
- High-density (0.8–1.2) – 13%

The annual allowable cut is 29.2 million m³, including 15.8 million m³ of conifers. Today the district cuts 8–9% of AAC.

Stand productivity is quite low; the most common are stands of yield class V (41% of forested lands). The more productive stands of yield class II account for 1.2%.

FOREST ROADS

The overall length of transport routes per thousand hectares of the forest fund is 0.7 km, i. e. just 11% of the optimal length (6 km per thousand hectares). This indicator confirms the acute need to build new roads, which requires considerable investment. The issue of forest road construction has been raised many times at the district level; all documents state the lack of a sufficient transport network, and the necessity of its construction and development.



FOREST MANAGEMENT

Following the new RF Forest Code, a Department of Forestry was established in the Khanty-Mansi Autonomous District (Yugra). 19 FMUs operate in the district. However, these FMUs are being transformed into forest districts and forest parks which are to implement forest management regulations and a forest plan for the autonomous district. This process will be completed by 1 January, 2008.

FMU workers' duties include forest protection, planting, fire protection and many other duties connected with forest area management. The federal center allocates money for sustaining the forest fund, but it is not enough; the rest of the required sum has to be earned by FMUs. In 2006, local FMUs held 131 auctions selling more than one thousand cutting areas; the volume of sold timber exceeded 3 million m³. Four auctions held over nine months in 2007 sold nearly 1.5 million m³ of timber.

TIMBER INDUSTRY

To develop overmature coniferous forests, two railway lines – Tavda-Sotnik in the Kondinskoye district and Indel-Ob in the Sovetskiy and Oktyabrskiy districts – were started in the 1960s. New forest enterprises and processing plants appeared along the railway. However, the local timber industry served as a raw materials supplier of the national economy, producing roundwood, lumber, sleepers and switch timbers for railways.

In the early 1990s, the volume of harvest went down. The production of lumber, sleepers and switch timbers for railways reduced significantly, and resin tapping and standard timber house output ceased. In the meantime, the 1990s saw product items which were new for the local timber industry: glued solid wood panels, planed moldings, triple-glazed windows and doors of good quality and modern design, and various furniture sets.

During the previous years (2001–2006), figures of the logging industry settled down to the level of 2.5 million m³ per annual harvest, but this was only 9% of AAC. If all other cuttings were included, the total harvest would have exceeded 3 million m³ per year.

The government of the autonomous district regards the development of Yugra's timber industry as a priority task.

According to Valery Bobylev, the Government Chairman Deputy, the regional timber industry has a largely unused potential: "Yugra's timber export alone could bring profits which could be comparable with those of oil companies."

The Khanty-Mansi Regional Governmental Program for the Development and Restructuring of the Timber Industry provides for such opportunities. For this purpose, integrated full-cycle enterprises covering all production stages, from logging to advanced processing, are being created.

Following the program, new and updated facilities were commissioned:

- Yugra Sawmilling Plants CJSC, producing export lumber. Rated capacity: 240,000 m³ of lumber per year.
- OJSC LVL Yugra, producing LVL. Rated capacity: 39,000 m³ of lumber per year.

Logging operations using CTL technology.

- LPK MDF CJSC, producing MDF, laminated panels. Rated capacity: 50,000 m³ per year. Other product items: moldings, furniture facades.
- OJSC "Koda Les". Sawmilling, production of millwork and planed moldings.

Modernization of logging operations; transition to CTL technology.

- Surgutmebel CJSC, producing double-glazed windows, PVC structures, module buildings and mobiles.
- DSK OJSC Stroymontazh, producing pre-fabricated timber houses, with an annual capacity of 15,000 m² of panel houses.

The implemented projects have ensured a more rational use of harvested timber and have augmented the output of value-added products.

Projects under implementation include:

- a chipboard enterprise in the Sovetskiy district with a rated annual capacity of 150,000 m³ of boards (OJSC Yugra-plit).
- a project under the title "Pre-Fabricated LVL Timber Frame Houses" with a rated capacity of 80,000 m² of housing per year, located in the town of Nyagan (OJSC LVL Yugra).

- Organization of timber house construction in the city of Khanty-Mansiysk with a capacity of 45,000 m² of housing per year (Regional Timber Company Koda Les CJSC).
- Investment project "Production and Use of Fuel Pellets as an Alternative Source of Energy in Khanty-Mansi – Yugra," Surgut district, settl. Barsovo, Surgutmebel CJSC

The years to come will see several more large enterprises aimed at advanced timber processing:

- Priobsky Timber Complex. Rated capacity: 800,000 tons of pulp, 236,000 m³ of lumber. Project duration: 2008–2014.
- Nizhnevartovsk Vertically Integrated Complex for Timber Harvesting and Advanced Processing. Rated capacity: 800,000 m³ of harvested timber, 100,000 m³ of lumber, 280,000 m³ of MDF, 150,000 m³ of chipboards. Project duration: 2007–2012.
- An OSB plant. Rated capacity: 250,000 m³ of OSB per year. Project duration: 2008–2011.
- A chipboard plant. Rated capacity: 150,000 m³ with an opportunity of expansion up to 250,000 m³ of chipboard per year. Project duration: 2007–2010.

Two big timber companies have been created in Khanty-Mansi: these are OJSC Yugorskiy Timber Holding and Regional Timber Company KodaLes CJSC. They account for up to 80% of all timber products in the district.

In order to use the available resources more effectively, all of the technologically interlinked forest industries should be developed: logging, woodworking, pulp and paper, and forest chemical sectors. This task can be fulfilled by the local forest specialists, many of whom considered the year 2006 as innovative and experimental.

Woodworking enterprises expanded their facilities and ranges of modern construction and finishing materials. The quality of the materials has increased solidifying competitiveness of Yugra products on the international market.

An important stage in the development of the industry was an agreement signed by the Khanty-Mansi Government and Managing Company Avantage Capital CJSC (Moscow) in July 2006, on cooperation in pre-investment





research of the project of PPM construction in the Ocyabrskiy district. The research is already under way.

Further advancement of local forest related industries requires considerable investments into integrated timber processing facilities for manufacturing high added-value products. Investors are aware of the scale and prospects of high-tech timber processing enterprises, as the number of those wishing to contribute to timber industry development is constantly growing.

The government of the Khanty-Mansi Autonomous District – Yugra is open for collaboration in the area of forest development and manufacturing of wood-based products.

WILDFIRE PROTECTION AND FOREST REGENERATION

Forest protection against fires needs special attention. The district suffers from multiple fires covering vast territories. According to the statistics, in 2004, 1,054 fires covering 71,400 hectares were observed in 2005–896 fires on 96,300 hectares, resulting in a stumpage loss which amounted to 2.6 million m³. Fire fighting is a complicated and costly process, some aspects of which are becoming more difficult every year. The problem of fire protection has not yet been solved mainly due to the lack of financing. Nevertheless, FMUs' production plans provide for the creation of fire lines, fire clearance zones, fire fighting roads, as well as the sustaining of all these objects. At present, a "Fire Prevention System: Wildfire Prevention and Fighting" program is being elaborated by the Forestry Department

of the Khanty-Mansi Autonomous District in conjunction with the Khanty-Mansi Forest Protection Air Base.

Regeneration plays a vital role and is aimed at renewing basic forest components through stimulating natural forest reproduction and creating forest plantations on bare lands by sowing. Local FMUs take measures to enhance cultivation and maintain the commercially valuable coniferous species (removal of cutting residues, preparation of ground cover and soil favourable for germination of tree seeds, and creating conditions that would prevent fires.)

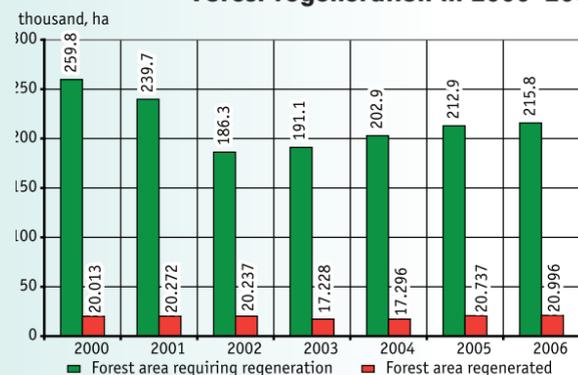
The creation of artificial plantations (sowed or planted) reduces the regeneration and cutting periods of the forest, as well as allows for the regulation of composition and assortment structures of stands.

District stands are exposed to the negative influence of the oil and gas industry. The main type of disturbance is destruction of ground cover and vegetation; its scale exceeds rated and visual estimations. The area of disturbed lands requiring recultivation is growing; about 40,000 hectares of forest lands polluted with oil products are lost annually. The reason is that the lands allocated by an enterprise for temporary use are not returned in due time. The dates of return of nearly half of the lands subject to recultivation have been transferred for years to come, while the new territories are "developed" and polluted. About 50 producing wells and 20 pumping wells are operating on territories of the Khanty-Mansi Autonomous District. If infrastructure facilities are added to them, one can realize the scale of the activities. So, in 2006, the total area of forest fund lands allocated by Khanty-Mansi Forestry for purposes other than forest management was 36,184.0058 hectares, and in 2005–37,549.7455 hectares. The total area of regenerated lands returned by forest users was 3,641.26 hectares. Disturbed lands are returned into the forest fund, and FMUs have to renew cut-out or degraded stands. The FMU's capacities do not allow for the elimination of all man-made damage to the lands.

FMU employees work to sustain and ameliorate the unique wildlife of Yugra, which withstands a devastating technogenic influence.

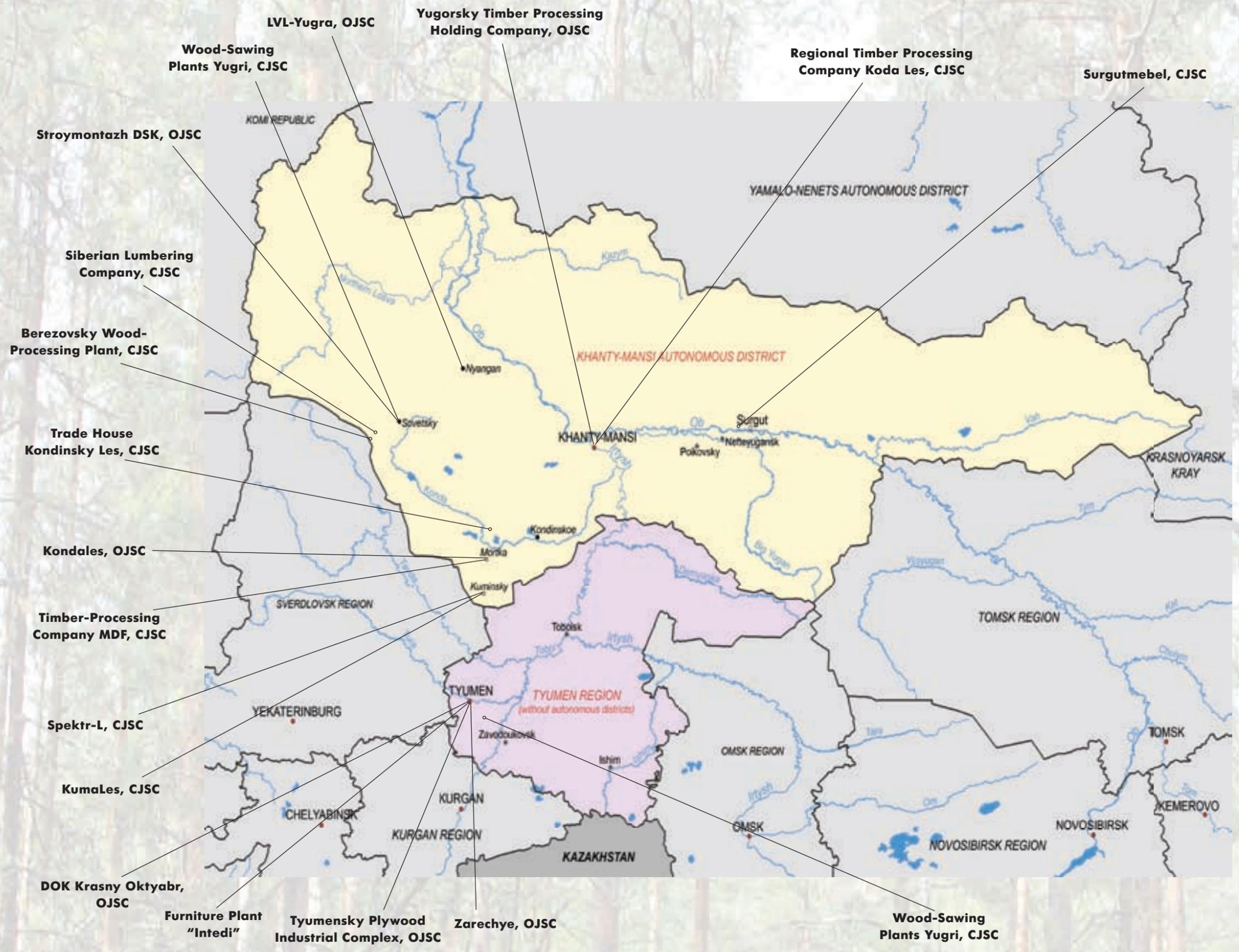
Figure 3

Forest regeneration in 2000–2006



THE LEADING ENTERPRISES OF THE KHANTY-MANSI AUTONOMOUS DISTRICT (KMAO) – YUGRA

Company's Name	Activity	Address	Contacts
BEREZOVSKY WOOD-PROCESSING PLANT, CJSC	Lumbering, wood-processing – round sawn timber, plank, joinery	628259, KMAO – Yugra, Sovetsky district, pos. Tazhny, Mira Str., 4, Russia	Ph.: +7 (346-75) 44-898, 44-805
KODA NDZ	Lumbering, wood-processing, sawn timber, export plank	628312, KMAO – Yugra, Neftyugansk, pos. SU-62, Russia	Ph.: +7 (346-12) 25-10-80 ndz@koda-les.ru
KODA SALIM LES	Lumbering, wood-processing, sawn timber, export plank	628327, Neftugansky district, pos. Salim, Prombaza, Russia	Ph.: +7 (346-12) 90-825
KODA VART LES	Lumbering, wood-processing, sawn timber, export plank	628616, KMAO – Yugra, Nizhnevartovsky district, pos. Izluchensk, Shkolnaya Str., 16, Russia	Ph.: +7 (346-6) 28-75-79
KONDALES, OJSC	Lumbering, wood-processing: round timber and sawn timber	628206, KMAO – Yugra, Kondinsky district, pos. Mortka, G.M.Borisova Str., 3, Russia	Ph.: +7 (346-77) 30-050
KONDINSKY BRANCH POS. MORTKA (KODA LES)	Lumbering, wood-processing, sawn timber, export plank	628206, KMAO – Yugra, Kondinsky district, pos. Mortka, Borisova Str., 3, Russia	Ph.: +7 (346-77) 30-936 kond@koda-les.ru
KUMALES, CJSC	Lumbering, wood-processing: round timber and sawn timber	628205, KMAO – Yugra, Kondinsky district, pos. Kuminsky, Pochtovaya Str., 51, Russia	Ph.: +7 (346-77) 39-148, 39-126
LVL-YUGRA, OJSC	Lumbering and wood-processing, glued veneer sheets (LVL)	628183, KMAO – Yugra, Nyagan, Lazareva Str., 28, Russia	Ph.: +7 (346-72) 51-209, 52-169, 51-238 lvl-ugra@nuagan.ru
MALINOVSKY SAWMILL, CJSC	Lumbering, removal of logs, sawn timber	628248, KMAO – Yugra, Sovetsky district, pos. Alyabyevsky, Tomyakina Str, 8, Russia	Ph.: +7 (346-75) 39-500, 40-444
REGIONAL TIMBER PROCESSING COMPANY KODA LES, CJSC	Lumbering, logging, wood-processing, tree-length materials and sawn timber, export plank, molded strips, door sets and sash pulleys	628011, KMAO – Yugra, Khanty-Mansi, Komsomolskaya Str., 30, Russia	Ph.: +7 (346-71) 55-146, 31-361 www.kodales.ru, office@kodales.ru
TIMBER-PROCESSING COMPANY MDF, CJSC	Wood-processing, MDF boards, production of framing units and laminated boards (incl. double-sided), furniture and facades	628206, KMAO – Yugra, Kondinsky district, pos. Mortka, G.M. Borisova Str., 3, Russia	Ph.: +7 (346-77) 30-144, 30-925
TORSKY SAWMILL, CJSC	Lumbering, removal of logs, sawn timber	628246, KMAO – Yugra, Sovetsky district, pos. Agirish, Sportivnaya Str, 18, Russia	Ph.: +7 (346-75) 41-876
TRADE HOUSE KONDINSKY LES, CJSC	Lumbering, wood-processing: round timber and sawn timber	628200, KMAO – Yugra, Kondinsky district, pos. Mezhdurechensky, Titova Str., 26A, Russia	Ph.: +7 (346-77) 41-204, 41-166, 34-996 td-forest@mail.ru
SAMZASSKY SAWMILL, CJSC	Lumbering, removal of logs, sawn timber	628256, KMAO – Yugra, Sovetsky district, pos. Kommunistichesky, 23, Russia	Ph.: +7 (346-75) 46-555, 46-283
SIBERIAN LUMBERING COMPANY, CJSC	Lumbering, removal, timber barking	628248, KMAO – Yugra, Sovetsky district, pos. Alyabyevsky, Novoselov Str., 5A, Russia	Ph.: +7 (346-75) 39-670, 43-483 siblk@bk.ru
SPEKTR-L, CJSC	Lumbering, wood-processing: round timber and sawn timber, freight	627700, KMAO – Yugra, Kondinsky district, pos. Kuminsky, Stacionnaya Str., 49A, Russia	Ph.: +7 (346-77) 39-120
STROYMONTAZH DSK, OJSC	Transmission facilities, house construction patterns	628240, KMAO – Yugra, Sovetsky, Yuzhnaya promzona, Russia	Ph.: +7 (346-75) 36-225, Fax: +7 (346-75) 35-936
SURGETMEBEL, CJSC	Lumbering, wood-processing, door sets and sash pulleys, modular buildings, carriage-houses, molded strips, furniture	628450, KMAO – Yugra, Surgutsky district, pos. Borisovo, Russia	Ph.: +7 (346-2) 41-30-70 sells@surgutmebel.ru
WOOD-SAWING PLANTS YUGRI, CJSC	Lumbering, removal of logs, sawn timber, export plank	628242, KMAO – Yugra, Sovetsky, Lenina Str., 47, Russia	Ph.: +7 (346-75) 38-090, 38-064, 38-066 lzu@bk.ru
YUGORSKY TIMBER PROCESSING HOLDING COMPANY, OJSC	Realization of the investment projects, wood-sawing and woodworking development, wooden house construction	628011, KMAO – Yugra, Khanty-Mansi, Roznina Str., 71, Russia	Ph.: +7 (346-71) 56-273 www.ugratimber.ru, office@ulh.hmrn.ru
ZELENOBORSKY SAWMILL, CJSC	Lumbering, removal of logs, sawn timber	628248, KMAO – Yugra, Sovetsky district, pos. Zelenoborsky, Politekhnicheskaya Str., 17, Russia	Ph.: +7 (346-75) 47-154, 41-155



THE TYUMEN REGION

The Tyumen region (without the autonomous districts) consists in its entirety of three subjects of the Russian Federation (the Tyumen region (South), and the Khanty-Mansiysk and Yamalo-Netnetsky autonomous districts) which are situated, for the most part, in the Ob river basin. As a whole, the province occupies a large portion of the Western-Siberian plain, and effectively splits the territory of Russia in two large halves: to the west are the Urals and the European part of the country; and to the east is the Asian half, including Siberia and the Russian Far East. Although the territory of the province is, geographically speaking, mostly in Siberia, its administration is handled by the Urals Federal District.

The Tyumen region borders to the north with the Khanty-Mansiysk autonomous district; to the west with the Sverdlovsk region; to the south with the Kurgan region, the Republic of Kazakhstan and the Omsk region; and to the east with the Tomsk region.

In international relations, the close proximity to Kazakhstan could have an impact on the economic development of the province, as could its nearness to the Central Asian republics and to Western China. The convenient location of the province, along with a highly developed transport network, make it a crucial Russian transport hub. The Trans-Siberian railway runs across the Tyumen region, as do federal roads, and there are seven international airports and five river ports. A vital railway and road begins in Tyumen and heads northbound, ensuring the functioning of the unique oil and gas complex.

Modern Tyumen is a major economic and cultural center for Siberia. The key industrial sectors are mechanical engineering and metal processing, wood processing, the chemical industry, light industry and the food industry. Among the main businesses in the province are factories in shipbuilding, mechanical engineering, motors, electromechanicals, accumulators, instrument-making, machine-tools, and medical equipment and instruments.

MINERALS

The region is unique in its mineral wealth. It holds a high concentration of oil and gas reserves. There are significant timber reserves. Oil, gas and timber are fundamental elements in the specialization of industrial production and in the formation of the Western-Siberian energy and industry sectors.

Peat stocks, that is industrial reserves (495 deposits), have been evaluated at 37 billion m³, with only five deposits being exploited. There are peat deposits everywhere, except for the far south. In some of the peat deposits major beds of vivianite have been identified (iron phosphate approximately 20% of world reserves), which could be used to satisfy the needs of the agricultural sector for phosphate-based fertilizers.

There are deposits of quartz sand, brick and keramsite clunch, sapropel, and limestone.

There are huge deposits of sapropel, but they are under-explored. The measured mineral reserves amount to 223 million m³. A total of 64 deposits of building sand have been discovered in quaternary deposits and neogene deposits, which preliminary exploration and evaluation have estimated at 741 million m³. Most of the known reserves of limnic sapropel are concentrated in

bodies of water in the Vagaïsk, Nizhnetavdinsk, Tyumen and Yarkovsk districts.

At the current time there are a number of deposits being developed with total reserves of 82.5 million m³.

Two deposits of glass sand with known and preliminary measured mineral reserves of 17 million m³ have been opened, as well as 4 deposits of quartz sand for manufacture of silicate brick, and the reserves for these have likewise been explored and evaluated on a preliminary basis.

A total of 210 deposits have been discovered of brick-keramsite, brick and sandy clunch, with reserves of 631 million m³, and a number of deposits, with total reserves of 90 million m³, are already being developed.

Deposits of chalky clay, calcareous tuff, mineral paint, and manganous formations have been discovered in the South.

Placer deposits of titanite iron ore and rutile have been discovered in the Yurginsk-Vagaïsk area.

FORESTRY

Timber is the traditional wealth of Western Siberia. Millions of cubic meters of timber from here find their way to many different regions in the country. This timber is most pines, which are suitable for any type of construction material, and for sawn-timber – planks, boards, and slabs that are essential to any business, and prefabricated wooden houses for collective farms, industrial regions in the Far North, and other regions across the country.

Wood reserves stand at 777 million m³, of which 458.9 million m³ are mature and over-mature, including 178.3 million m³ of soft coniferous timber species.

There is a certified forest area of 9,419,700 m², which includes 1,650,000 m² of loggable coniferous forest. The proportion of certified forest area exploited in the south of the province is only 8.8%, while in the Uvatsk, Tobolsk and Vagaïsk districts, where the principal forest resources are concentrated, the figure for exploitation does not rise beyond 4–5%.

Breakdown of species proportions:

- Pine – 25%
- Spruce – 6.8%
- Silver fir – 1.4%
- Siberian pine (cedar) – 9.4%
- Birch – 47.6%
- Aspen – 9%
- Other – 0.8%

Wood assortment in the south of the Tyumen region as whole of the certified forest area:

- Coniferous plank timber 14%
- Foliferous plank timber – 15%
- Plywood raw material – 8%
- Technological raw material (pulp and paper, chipboard, wood shaving-cement board) – 51%
- Fuel wood – 12%

Only 6% of the certified forest area in the south of the Tyumen region is exploited, including 15% of coniferous plantations.

For 2006, a total of 1,774,200 m³ of wood was harvested through all types of logging, and this constitutes 102% of the level for 2005, and includes:

- final harvest – 518,500 m³
- intermediary harvest – 504,000 m³
- other logging – 751,700 m³

This growth occurred because of the development of "rental" arrangements. The volume of lumbering on rented plots grew by 36.6% as compared with 2005.

Forest resources are unevenly distributed across the administrative districts. The main reserves of coniferous and foliferous wood that are under exploitation are concentrated in the zone of the southern and central taiga forest in the Vagaïsk, Tobolsk, and Uvatsk districts. Certified forest area in these districts is set at 5.5 million m², which includes 1.28 million m² in coniferous plantations.

A branching river network here provides the most convenient floatable means of transporting the timber. Enormous rafts float down the entire Ob basin, acting simultaneously as a means of transport and a raw material. They are dismantled at the timber handling bases, and powerful cranes help to load them onto open railway trucks. At the same time, the waterlogged nature



of the territory in the southern and central taiga forests, along with the remoteness of the forestry plots with their exploitation reserves from the principal transportation routes and woodprocessing centers (in Tyumen), slows the development of the forestry sector and the timber industry.

THE TIMBER INDUSTRY

Despite its significant resources of mature and over-mature wood, the forestry sector is poorly developed, and is put to inefficient use. The timber industry accounts for only 5.4% of the total annual gross industrial output.

The structure of the timber industry in the Tyumen region looks as follows:

1. Logging sector;
2. Wood-processing sector:
 - production of sawn timber;
 - production of elements for prefabricated wooden houses, joinery goods, wooden building materials;
 - production of chipboard and plywood.
3. Furniture sector:
 - production of virtually the entire range of furniture, including cabinet and upholstered furniture, home and office furniture, furniture made from wood-based board and from solid wood.

Data provided by businesses in the forestry and wood-processing industries indicate that 3.1 billion rubles' worth of goods were produced by companies from these sectors in the south of the region in 2006, which is 104.7% as compared to the figures for 2005. This includes:

- logging and wood-processing – 1.4 billion rubles
- furniture – 1.7 billion rubles

One important direction in the work of the timber industry is the provision of goods for export. Regular customers for the timber industry in the south of the Tyumen region are Kazakhstan, Uzbekistan, Kyrgyzstan, Azerbaijan and Iran.

The principal types of products for export are:

- sawn timber goods (8%)
- plywood (75%)
- chipboard (9%)
- furniture (65%)

MAJOR ENTERPRISES

The forestry industry is one of the most promising sectors of the economy in the Tyumen region. There are more than 350 active enterprises based across all its districts. The timber industry in the region consists of 14 large and medium enterprises, which includes 6 furniture companies, 6 wood-processing firms and 2 logging concerns.

Products from the majority of these producers are competitive, in high demand and recognized not only in the region, but beyond. The largest enterprises in the Tyumen region are present below.

Tyumen Veneer Plant. This venerable company has a 70-year track record, and its own traditions. The plant is an independent joint-stock company today.

The plant specializes in plywood production:

- FK plywood, glued on the basis of urea formaldehyde resins (24,000 m³ annually).
- FSF plywood, glued on the basis of phenol-formaldehyde resin
- Aviation plywood glued on the basis of phenol formaldehyde resin SFJ 3011
- Bakelized plywood FBS-1 and FBS1-A, glued on the basis of non-phenol alcohol-soluble lacquer and birchen veneer sheet of different kinds (4,800 m³ annually)

The plant is the only enterprise in the Tyumen region currently engaged in veneer production. The equipment used at the enterprise includes RAUTE rotary peelers, and SRG-25M drying cells for veneer sheet drying, while plywood polishing is done on a Steineman machine, and veneer sheet cutting is done on a high-efficiency FP – 119, four-saw machine.

All veneer production at the company corresponds with stipulations for state standards and has quality certificates.

The major consumers of the company's products are large Russian enterprises, such as furniture factories in Moscow, Vladivostok, Kemerovo, Chelyabinsk, Krasnoyarsk, Khabarovsk, and Komsomolsk-na-Amure, as well as automobile factories in Pavlovsk, Kurgan and Ulyanovsk. The company also exports products to the USA, Canada, China, Slovakia, the Czech Republic, Turkey, and other countries.

Tyumen Veneer Plant was awarded the Grand Prize for high investment appeal in the 2004 "Golden National Reserves of the 21st century" competition, and was a prizewinner at the "Russian National Olympus", among other awards.

The plant does not intend to stop there, however. The team currently faces a serious challenge – the building of a new factory where they aim to produce plywood that meets European standard requirements, with a format of 2,440 x 1,220 mm. The first issue of this product is planned for late 2007.

Krasnyi Oktyabr Wood-Processing Plant. The Krasnyi Oktyabr (Red October) wood-processing plant was founded over 70 years ago. During this period, the company has changed its manufacturing profile several times, ranging from the the production of standard houses in the 1920s to meeting the army's needs at the front for skis and armament crates in the 1940s, and more than half a century's output of furniture and semi-finished furniture products right up to the current time.

Now Krasnyi Oktyabr offers consumers cabinet furniture for home use made from wood-based boards. In addition to this, the company specializes in the production of particle boards, laminated boards and also semi-finished furniture goods such as molded MDF elements with film coatings, tabletops, and frontispieces.

The manufacturing capacity currently consists of a chipboard production workshop with a nominal capacity of 100,000 m²/per annum, a chipboard laminating production unit with an annual output of 3.5 million m³ of laminated softwood board, and two ultra-modern facilities for producing cabinet furniture.

The company has received multiple diplomas at the Moscow international furniture exhibitions "EuroExpoFurniture" and "Furniture". The company's goods are listed in the Russian catalogue of "The best 100 products of Russia".

The main competitive advantage this company presents is the fact that its production chain covers all stages of furniture production. The lion's share of investment in recent years has been channeled into developing manufacturing capacity, reconstructing the board production line, and a thorough modernization of the furniture side of the business.

The "Furniture Production Reconstruction Program", which was implemented jointly in 2006 with the German Homag GmbH group, and financed by the Western-Siberian branch of Sberbank, enabled the company to substantially improve the quality of furniture it produces, and also to greatly reduce the time spent completing manufacturing contracts.

The company's current plans involve developing their assortment policy. The principal product group at the firm will be furniture for the home: furniture for the living room, entrance hall, and bedroom, as well as children's furniture. Items made with modern constructions of mixed materials for the body and frontispieces (laminated chipboard, MDF) will form the core of the range.

An ability to respond rapidly to consumers' needs makes it possible to build up a network of shops that either belong to the company or are franchised operations, and go under the vivid and pleasant-sounding brand of Mebelville. Work on promoting the Mebelville brand as a sales outlet really got started in 2005. Very soon the sales format that was established in the Mebelville centers was recognized as one of the best on the furniture market by the professional community and final consumers alike.

Zarechye. The company was originally founded as the Tyumen Furniture Plant, and has been in existence for over 60 years. The company adopted the Zarechye trademark in 1990, and entered a new stage of development, establishing a fundamentally new system of management and production restructuring.

The most up to date equipment is used to manufacture quality products at the Zarechye plant, supplied by such foreign companies as Bodo Gerhard, Z Bavelloni, Homag, and IMA Facing and finishing materials from recognized western producers, such as Letron and Linnemahn, are used, as well as frontal fittings from Hettich and Fennel.

Zarechye has, on many occasions, received certificates from the Moscow international furniture exhibitions "EuroExpoFurniture" and "Furniture". The company's products are listed in the Russian catalogue "The best 100 Products of Russia," and are winners of the gold medal from this program.



Zarechye today is a specialized business producing furniture suites for the living room, bedroom, entrance hall, office, and children's room, as well as sliding-door cupboards, and with an extra line in glass and mirror products as well.

Since April 2007, the Zarechye plant has been engaged in implementing a Russian-German production program in Tyumen entitled GARMONIA, which has already managed to gain high appraisal at the specialized Moscow exhibition "Furniture 2006". The GARMONIA program incorporates living-room, bedroom and young people's furniture, as well as furniture for the home office, and entrance hall, and was awarded the "Grand Prize" by the Artistic Technical Committee for the Furniture Industry. The main distinguishing feature of this new furniture program is the combination of exclusive German façades and modern Russian cases, which ensure that the items are highly competitive in the "medium plus" pricing segment of the market.

Mass production of furniture suites, with the advantage of modularity, is a priority for the Zarechye factory.

Intedi Mebelnaya Fabrika. Production here was established nearly half a century ago, as the Yalutovsk Furniture Factory. A new lease of life started for the plant in 1998. After a total reconstruction effort, the company was renamed the Intedi Mebelnaya Fabrika (Furniture Factory). Everything virtually had to be started from scratch, as all that remained of the old assets was the floorspace and the experience and traditions of the old workforce. In 1999, the company produced its first items under the Intedi brand.

At the current time, the factory offers a wide range of modern and good-quality cabinet furniture for the kitchen, living room, entrance hall, children's rooms, cupboards with sliding or hinged doors, bedroom suites and also a wide selection of additional furniture (bed-side tables, chests of drawers), computer tables and writing desks.

In addition to this, Intedi produces furniture for schools, pre-school and medical institutions. The factory has extensive experience in fitting out schools, nurseries, hospitals, libraries and offices with integrated furniture sets.

All goods are finished in three textures: "linden," "alder" and "metallic". Laminated 16mm and 22mm chipboard is used in the production of all cabinet furniture. All furniture is produced on modern equipment from Spanish, Italian, German and Russian suppliers.

The factory's products have many times been awarded certificates at furniture exhibitions for their wide-ranging functional potential and their comfort value.

Sibzhilstroj. The company was founded in 1994 on the basis of the Zapsibzhilstroj plant in Vinzil, producing building structures and structural elements. The company implements the entire cycle of wood-processing, producing wooden building structures for house construction, wood shaving-cement board, and molded wood items. House-building products make up a large portion of the company's output – be that for the construction of individual houses, or for blocks of apartments, commercial pavilions, agricultural structures or joinery products.

The most up to date methods and means for processing wood of different types are employed here, and many types of architectural and structural components are produced "in wood."

The company's profile entails the production of quickly-assembled low structures of different types made from sandwich panels, prefabricated buildings made from glulam beams, glulam structures, including cambered elements, and the provision of supplies dispersed throughout the plant's 5,000 m² floor space every month.

The high level of finish that the factory provides on building structures means that the buildings can be erected all year round in the shortest time frames, and do not require the labor of highly-skilled workers, and likewise ensures that the cost of completing the job is kept to a minimum.

Sibzhilstroj is involved in implementing the "Accessible and Comfortable Housing" program, as well as a program for developing Russia's agricultural industry.

DEVELOPMENT OF THE SECTOR

Priority directions for development of the forestry sector in the Tyumen region (without the autonomous districts) have been defined as follows:

- Coordinated exploitation of forest resources of the region and organization of product output with high added-value
- Development of capacity in processing foliferous and low-value lumber
- Increase in the output of construction materials and other products made of wood.

At the current time work is being completed on the construction of the first production line of a new plywood plant that will turn out large-format plywood, with a production capacity of 30,000 m³ per year. Nevertheless, there is still a deficit in the wood-processing capacity for processing lower quality wood.

As a result of the substantial increase in volumes of construction of individual housing, companies that produce wooden building materials have stepped up their activities. They are dynamically expanding their production volumes of building materials, modernizing their facilities, and broadening their range.

In 2006, under contract to the Tyumen regional government, the Finnish company Jaakko Poyry Management Consulting (Europe) Oy developed a "Strategy and Development Plan for the Timber Industry of the Tyumen Region," in which recommendations were made to create more facilities for the long term in the following areas:

1. Coniferous sawn timber
2. Foliferous plywood
3. Chipboard
4. MDF boards
5. Bleached market kraft pulp

The government of the Tyumen region is looking for potential investors to establish long-term production capacity within the region.

Elena ROSHCHINA

Based on material provided by the Information Policy Department, and the Department of Industry and Forestry of the Tyumen region, as well as material gathered from internet resources.



INVESTMENT OFFERS FOR BUILDING WOODWORKING ENTERPRISES IN THE TYUMEN REGION

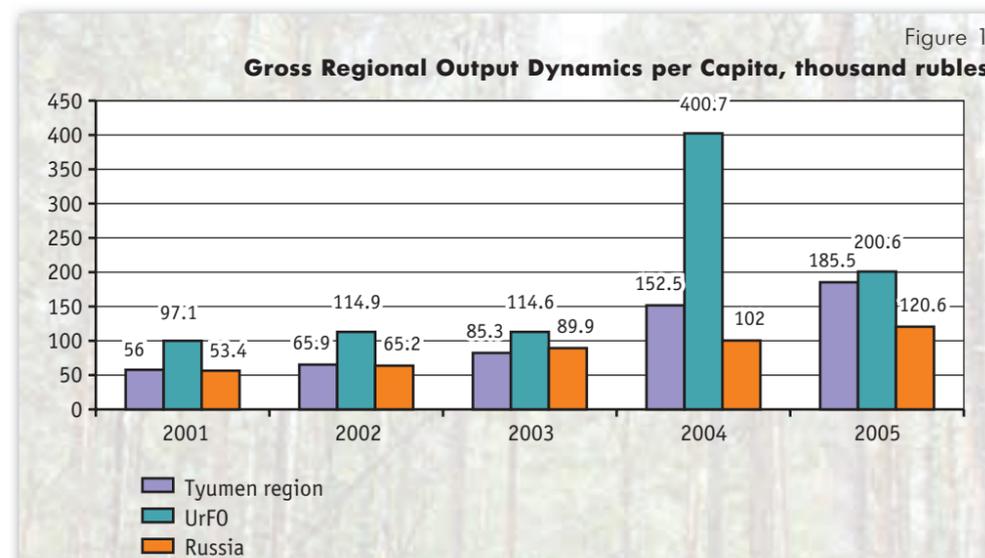
An influx of foreign investments in the economics district is one of the Tyumen regional authorities' major fields of activity. The timber industry is the leading branch of manufacture development, which is also one of the primary tasks of the Tyumen region's economic policy. This article was prepared on the basis of analyzing Tyumen's timber industry potential and its development strategy, as well as taking into consideration Tyumen's industry development strategy program over the period from 2006–2008. The analysis was performed by the "Jaako Poyry Consulting" firm. In the article you can find the information gathered from the Federal State Statistics Service and its territorial form in Tyumen, as well as from the Federal Customs Service and the Federal Agency for Forestry and Federal Industry Agency, among others.

The Tyumen region is one of the most successfully developing regions of Russia, it also has a considerable socio-economic as well as scientific and technical potential. In 2006 among the regions of the Ural Federal Okrug the Tyumen region (autonomous areas not considered) was the one with the highest rates of fixed capital investment growth, real wages of working people and dwelling-houses put into exploitation. The index of industrial production has turned out to be one of the highest among the regions of the Ural Federal Okrug and has significantly exceeded the all-Russian figure.

The region has a very favorable strategic location and links the eastern and western territories of the country, and the northern region with its oil and gas resources and the industrial Urals. It is crossed by the Trans-Siberian Railway and motorways of national importance that link Tyumen with the

Ekaterinburg, Omsk, Kurgan, Khanty-Mansiysky and Yamalo-Nenetsky autonomous regions. It has an international airport and big river ports (Tyumen and Tobolsk). Through the south of our region are maintained the deliveries of the resources necessary for the development of oil and gas northern complex. The index of gross regional product per head steadily exceeds the average Russian figure which results in a positive demographic situation in the region. By the beginning of the year 2006 the population reached 1,314.5 thousand people. 65.7 per cent of it are people of working age; 17.5 per cent – people of younger age; and 16.8 per cent – elderly people. In 2005 the mean money income per capita was 8,430 rubles a month. In comparison with the previous year the real disposable income of the population has risen by 17.7 per cent (see Figure 1).

In recent years, most industries have demonstrated a substantial increase in goods



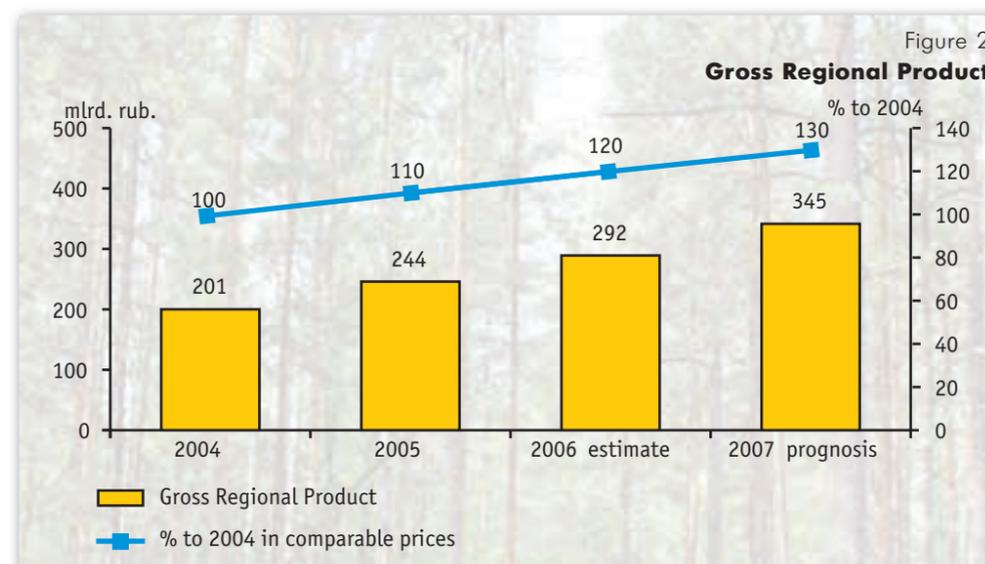
and service production. As compared with the year 2000, in 2005 the gross regional product (in comparable prices) has grown by 45%, the industrial output grew by half as much, investments into the fixed capital have increased 2.6 times more and the gross output in agriculture – 1.3 times more (see Figure 2 and Figure 3).

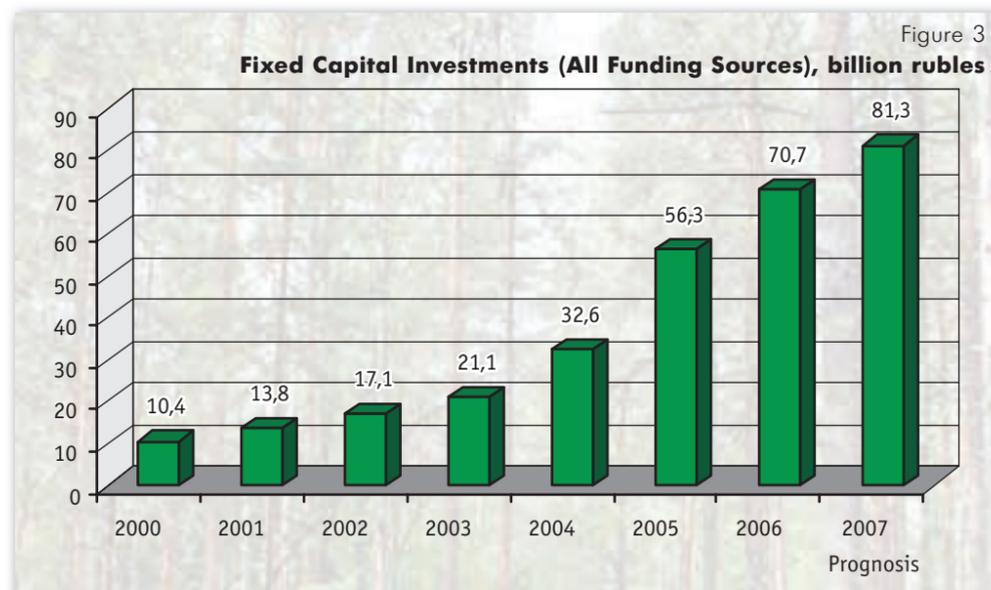
Attracting capital in the region's economy is one of the priorities in the regional government's activity. The Government of Tyumen region is ready to support investors who intend to invest their capital into the region's enterprises, and to create highly favorable conditions for their activity in the region. Tyumen is the place where such companies as TNK-BP, Uralskaya

GMK, KCA Deutag, Bentec Drilling, Halliburton, "Unimilk", MESA IMALAT, "SIBUR Holding", and others are carrying out and plan to carry out their investment activities.

The priority of regional economic policy is the development of all processing industries; one of the leading roles is given to wood industry.

Today wood industry of the Tyumen region is represented by 397 functioning enterprises. About 2.6 thousand people work at big and medium enterprises, more than 10 thousand people – in small companies. Their output is 2.5 billion rubles, the share in gross regional product – 5.4 per cent. At the same time the depreciation of the basic processing equipment is appraised as exceeding 75 per cent.





The region has a number of advantages for the development of the wood-working industry. These are low-cost (in comparison with the other countries) productive capacities, such as competitive prices for manpower, energy and softwood, as well as galore forest resources, stable market growth, favourable geographic location for the softwood products deliveries in Kazakhstan and other Central Asian countries, some experience in plywood, particleboard, sawn wood production, highly skilled workers and scientific and technical potential, sufficient quantity of thin timber for board production, dynamic growth of furniture industry, far-reaching plans in production and usage of wooden houses and the authorities' activities aimed at creating favorable conditions for the development of different businesses.

The regional law "About State Support of Investment in the Tyumen Region" has been passed. It provides for all kinds of support to the investors – investment allowances, budget accounts, subsidies and subventions, assistance in acquiring land and other realty, and different guarantees.

In recent years the region has been creating favorable conditions for the development of forest business. The functioning plants are given financial support and are being modernized which is aimed at increasing output of both specified, dry sawn wood for export and planed molding details and glued ware for domestic and foreign market. The regional law "About Measures for the Development of the Pulp and Paper Industry in

the Tyumen Region" stimulates the improvement of processing quality of the output produced in the Tyumen region.

Production market development signals long-term tendencies in growing consumption of wood further-processed products (plywood, wooden boards, specialized sawn wood). Meanwhile, the Government of Russia is pursuing a policy of further-processing development by raising export taxes on raw wood.

In this respect a significant role is given to cooperation with the Kazakhstan Republic as a Customs Alliance member-country. Lower customs duties, geographical nearness, possibilities of transit to the other countries of Asian region, the lack of local wood resources make this country's market greatly attractive, especially against the background of its rapid economic development.

The local executive authorities of the Tyumen region and Kazakhstan are fully cooperating in the development of trading links, and search of partners for building dynamic business relations. As a result Kazakhstan enterprises have growing trust and demand for the products of Tyumen manufacturers, in particular wood manufacturers. The delivery volume of plywood, particleboard, furniture and other products of the wood processing industry to Kazakhstan is growing annually.

The government of the Tyumen region is working at organizing forest use, developing of wood stock and providing raw materials for wood-processing

enterprises. Concerning this point a constant information change is set up between directors of forestries and local executive authorities. To guarantee the industry's supply with raw materials the wood-processing plants are first to be given timber resources under long-term leasing.

The local authorities strongly support timber road building. Since 2007 the enterprises that build these kinds of roads are compensated 70 per cent of all expenses with budgetary funds.

A number of investment projects are being carried out by OAO "Tyumen Plywood Plant", OAO "DOK Krasny Oktyabr' (Red October)", ZAO "Zagros" and others with the support of the Government of the Tyumen region.

A profound analysis of both weak and strong points of the region's wood-processing industry caused the recommendations given by the Government of the Tyumen region and Finnish Poyry Forest Industry Consulting Oy (the official contractor in strategies of the Tyumen region's forest industry development) for the choice of investment projects to be realized in the Tyumen region:

- Sawn softwood plant
- Sawn hardwood plant
- Plywood production
- Particleboard plant
- Medium density fibrewood plant
- Oriented strandboard plant
- Prefabricated wooden houses enterprise
- Logging enterprise

New enterprises will be supplied with the most modern equipment which will lead to significant advantages in competitiveness of the domestic market, and with relatively low prices for raw materials, energy and manpower even of foreign markets.

The offered production capacity is determined by analyzing the competitiveness of similar foreign enterprises. It also takes into consideration the needs of the region's wood-processing and furniture industries to create the forest industry cluster in the Tyumen region.

Among the recommendations for the spatial location of enterprises such factors as the volume of raw materials, its species composition, availability and quality, the development of

transport infrastructure, sufficient energy sources and manpower, road approaches, and logistic and economic expedience are taken into consideration. Of course, the offered list of enterprises is not final but just recommended and is not bound by one definite production. The investor has the right to carry out all necessary studies for the location sitting of his plant and to choose the most appropriate area.

Further on, the basic characteristics and prospects of carrying out the offered investment projects are given.

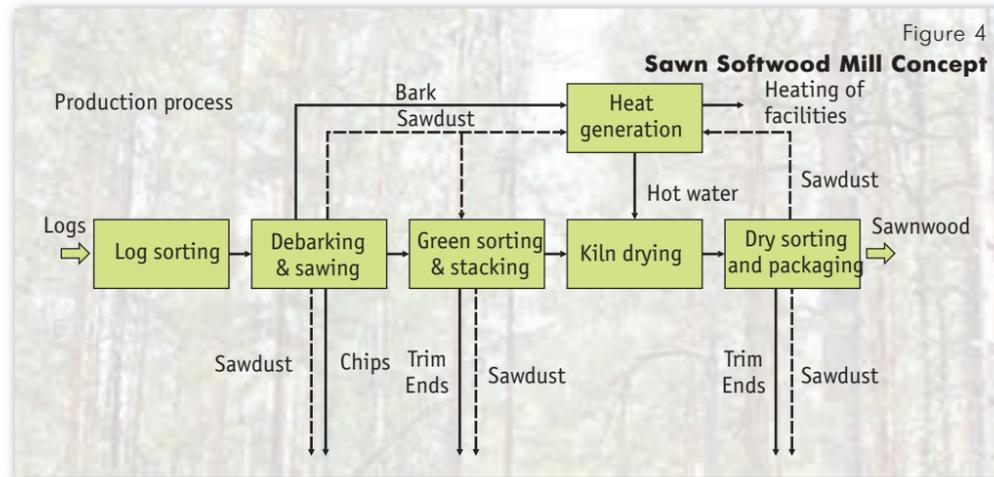
SAWN SOFTWOOD PLANT

The project offers setting up a competitive production of sawn softwood with the capacity of 100,000 m³/a. Sawnwood consumption is 205 000 m³ a year. The output produced from 1 m³ of log is 45-50% of sawnwood, 30% of chips, 10% of sawdust and 10% of bark. By-products can be used for production of particleboards, medium density fibrewood boards, cellulose and heating energy.

The total investment volume is put at €14.9 mln. The construction of a new forest plant will take 1 or 2 years. About 60% of investment money is reclaimed during the first year, 40% – during the second year of the project realization. The number of personnel for the production service, together with the technical-repair staff, is 137 persons. The energy power is 4 MW. Chemicals such as glue are used during the production; emissions in the atmosphere are possible.

The sawmill capacity is set considering the possibility of raw wood material supplies in the volume required with the admissible transportation expenses. The production with the chosen capacity can be organized in one production line. The sawmill is supposed to be a self-contained enterprise supplied with all modern technological equipment for raw sawn wood processing and mechanical equipment for transporting of sawnwood. The process of sawn softwood production is demonstrated in Figure 4.

The supposed production site of more than 20 hectares is located in Turtas, Uvat district. The production site has all the necessary objects of infrastructure (automobile and railroad approaches, energy and water supply, etc.). All this will minimize the cost of raw sawnwood and its delivery expenses



as well as the output shipment expenses. Besides this, the production site is sided with the reserve territory of 2 hectares for wood further-processing. The location of the production site is conditioned by the sufficient nearby softwood reserves. An administrative and living building and a ground depot with crane equipment are found at the production site. The land proprietor is the Uvat Municipal Government.

MARKETS

North America and Western Europe dominate the global sawn softwood business accounting for almost two thirds of both production and consumption. In Western Europe production exceeds consumption and thus the leading exporters have started to look for new markets overseas. Russia and Eastern European countries are major sawn softwood supply regions where local consumption is still at low levels.

In Asia, Japan has traditionally been the leading country in the sawn softwood business with significant import volumes. China is self-sufficient in sawn softwood production and consumption but as a result of logging bans and booming demand import volumes are strongly rising (see Table 1).

The volume of the Russian sawn softwood market is significant enough: the total output is about 17.8 mln. m³ a year and the domestic consumption volume – 5.7 mln. m³ a year. Russia is an important exporter of sawn softwood; in 2004 the total volume of export deliveries was 12.1 mln. m³. According to the data off the record the extra volume of sawn softwood production that usually goes to home markets is 5 mln. m³ a year. Thus 70% of the output are export deliveries carried out by big manufacturers and 30% are domestic market deliveries by small sawmills with a big share of further processing.

According to the data provided by the Poyry Consulting Company through 2015, high growth rates will be demonstrated by the United States (1.7 mln. m³ a year), which is three times more than in Europe, or China (0.52 mln. m³ a year). The Russian sawn softwood market will also develop and by 2015 the consumption rate will exceed 100 m³ per 1,000 people (0.27 mln. m³ a year); the average rate is 4% annually which is one of the best rates worldwide. Thus the demand in Tyumen and nearby regions will rise from the present level (1.0 mln. m³ a year) to 1.5 mln. m³ a year, and in Central Asia markets

Table 1

Production and Consumption of Sawn Softwood in 2004

	Production	Import	Export	Consumption
	1,000 m ³ /year			
North America	120,405	38,812	39,568	119,649
Western Europe	80,643	33,956	35,356	79,243
Russia	17,800	5	12,146	5,659
Other countries of the Eastern	22,025	4,165	11,816	14,374
Japan	13,096	8,889	5	21,980
China	18,609	1,700	187	20,122
Other Asian countries	10,512	5,910	211	16,211
Latin America	20,274	2,102	5,065	17,311
Other countries	10,341	4,335	1,912	12,764
World total	313,705	99,874	106,266	307,313

which are import dependent by tradition – from 1.7 mln. m³ a year to 3.2 mln. m³ a year.

The settlement price for sawn softwood is based on long-term tendencies in Western Europe – €165/m³, in the Tyumen region – €109/m³, in Central Asia (Kazakhstan) – €120/m³.

The main consumer of sawn softwood in Russia is construction, accounting for over 60% of the total consumption. Because the Russian domestic market sawn softwood is sold mostly of low quality and is used mostly for building construction. The other end-uses of sawn softwood are furniture (15%), mouldings (15%) and packaging.

In general, the market situation is beneficial for the realization of the sawn softwood project.

POSSIBILITIES OF TIMBER SUPPLIES

Wood species/sorts needed: pine, fir and cedar logs.

The technically allowable softwood cutting area in the region is more than 2 mln. m³ a year, but most of the wood is planted in the northern areas, and is difficult to access. The current volume of softwood cutting are 0.7–0.8 mln. m³ a year, including 50% logs. Wood supplies will be provided mostly from the northern areas which is best for the sawmill located in Uvat district of the Tyumen region as wood will be transported both by railroad and motorways.

The guiding price of wood is €25–38/m³.

INVESTMENT COSTS

The main items of investment costs are buildings and the basic machine equipment (integrated primary and secondary breakdown saws with edging units, sawing line equipment, green wood processing equipment, and kiln drying equipment). In general, considering the plant production capacity, the investment volume is moderate. The calculation of investment costs is done without taking into account customs duties on the imported equipment, as well as the working capital and cost of land and infrastructure.

Total project costs is €14,9 mln.

FINANCIAL PROSPECTS

With the plant working at full project capacity the net effective income from product sales is €10.17 mln. a year. Total production costs are €6.6 mln. a year. With such rates the sawnwood production profitability (intrinsic profitability norm rate) will be 16%.

Terms of project effectiveness at a 10% discount rate – 8–9 years.

Current net value at a 5% discount rate – €14.2 mln.

Current net value at a 10% discount rate – €6 mln.

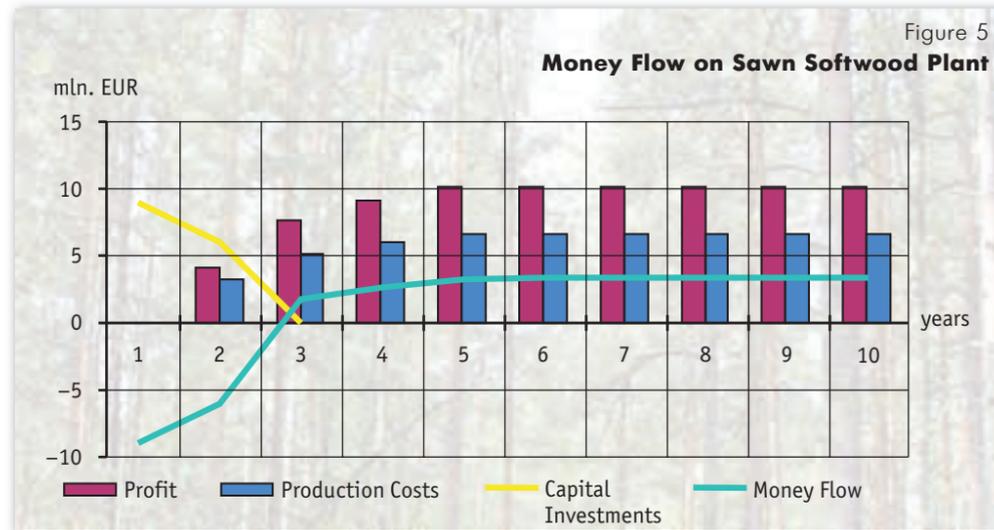
PROJECT RISKS

The profitability rate of a sawmill producing sawn softwood is very sensitive to the changes in sales net value, production volume and timber

Table 2

SWOT-Analysis for Sawn Softwood Production in Tyumen Region

Strengths	Weaknesses
<ul style="list-style-type: none"> High quality products (further processed) Low-cost production – low cost wood in global comparison 	<ul style="list-style-type: none"> Weak industry structure, small-scale producers Lack of specialization Low profitability in case of only raw sawn materials production
Opportunities	Threats
<ul style="list-style-type: none"> Opportunities for regional production Central Asian markets, especially Kazakhstan Increasing popularity of timber frame and block housing High value added, export profit high enough 	<ul style="list-style-type: none"> Competition from the neighbouring regions Constant growth of railway tariffs



cost. In this situation investors must make a detailed study of such aspects with market planning (marketing optimization aimed at raising average net value of sawnwood sales) and scale economics (defining the maximum plant capacity considering raw material resources).

The sawmill industry does not use specific chemicals, however some markets demand sawnwood chemicalizing with fungicide and insecticide.

Other risks do not have much influence on the project.

SAWN HARDWOOD PLANT

The capacity of a competitive sawn hardwood plant is estimated at 20,000 m³ a year. Timber consumption is 52,000 m³ a year.

The project demands €4.1 mln. of investments. The construction of a new plant is supposed to take one year. Labor inputs for defining the personnel are estimated by the rate of 5.3 person/m³. Energy capacity is 80 kW x h/m³.

The strategy of sawn hardwood production is similar to sawn softwood production.

The production area recommended for the project realization is located in the village Yurginskoye, Yrginsky district of the Tyumen region (150 km distance from Tyumen). The choice of the production site was determined by timber availability (the allowable hardwood cutting area in the Yurginsky district is more than 400 thousand m³ a year), engineering infrastructure (electrical,

gas and water supply), suitable automobile road approaches, nearness of railroad stations (Novy Tap Station – 50 km, Omutinskoye Station – 55 km), and high-skilled labor resources in the district. The production area is in municipality property, land category is settlement land, the surface area is 2.5 hectares with no buildings or constructions, there is a spare territory with the surface area of more than 20 hectares for log and output store houses building.

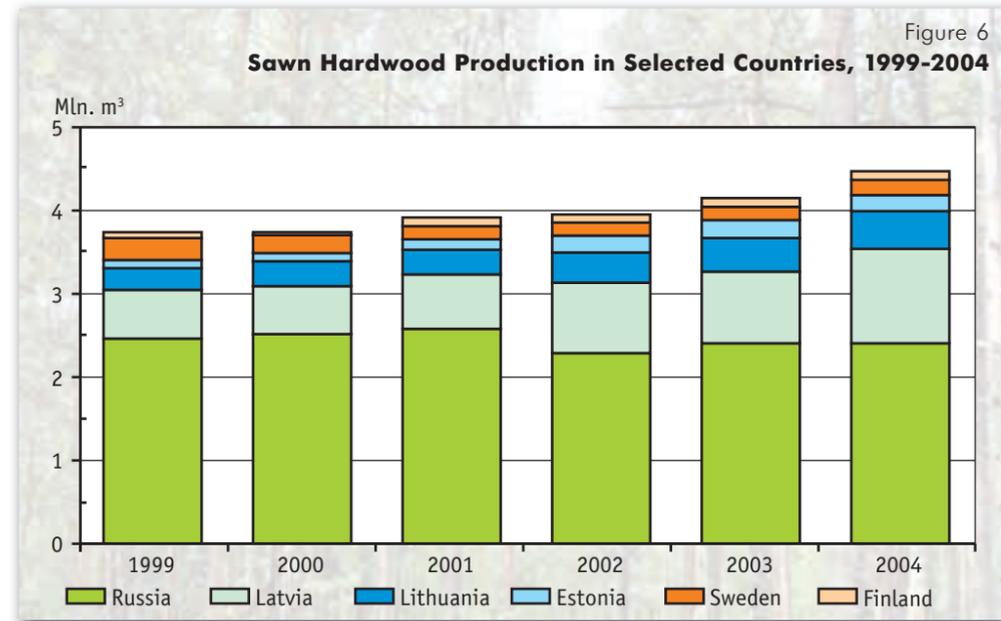
MARKETS

In comparison to sawn softwood markets, the total sawn hardwood markets are relatively small. The shares of sawn hardwood businesses of the total sawnwood market in Western and Eastern Europe are only 8% and 19% respectively.

The decreasing tropical sawnwood supply together with increasing use of wood in interior design offers opportunities for birch sawnwood business. However, the end-use segments and raw material resources set limitations for sawn hardwood consumption growth. Also, sawn hardwood is being substituted by other products such as wood-based panels.

Total sawn hardwood production in birch-growing countries is approximately 4.5 mln. m³ a year, of which Russia accounts for over half (2.5 mln. m³ including 0.35 m³ of export supplies; import volume was small, the domestic demand was 2.1 mln. m³, see Figure 6).

The Baltic countries and Russia have different export destinations for sawn hardwood. For the Baltic countries, the UK is the most important export market whereas China has become a



major market for the Russian producers (32% of total export volume). European countries can be characterized as markets for higher end furniture and joinery producers whereas China is a low cost producing country, where lower grade sawnwood is further processed (resawn, planed, finger-jointed, etc.) before furniture and joinery production. The price level in China for sawn birch is much lower compared to European markets. Central Asian markets are not big; therefore they cannot have business prospects.

The competitiveness on a sawn hardwood market is lower than on a sawn softwood market, which can be explained by a limited number of hardwood production sawmills and geographical concentration of birch resources.

The Majority of the output will be of low grade quality due to knots, its price will not be more than €150/m³.

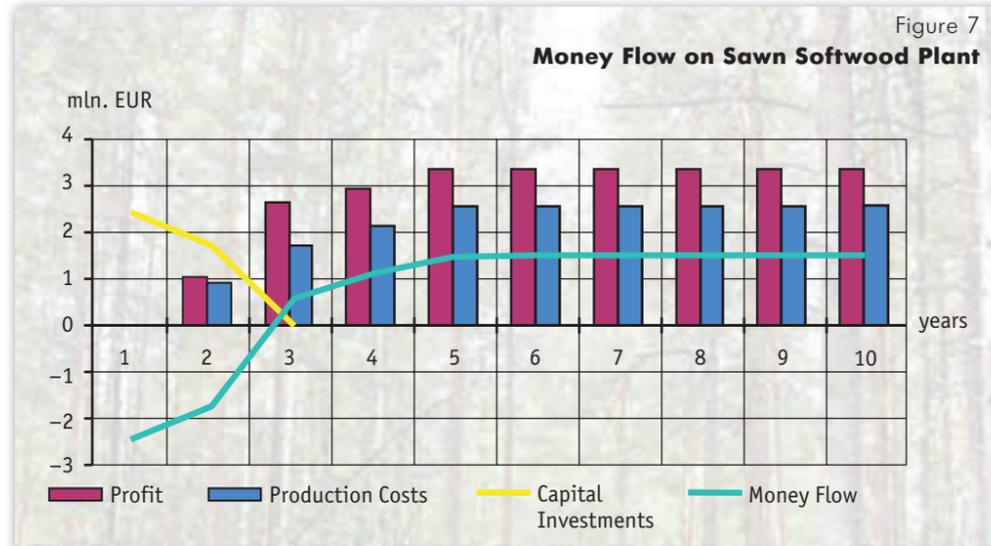
Sawn hardwood producers are, as a rule, small sawmills with the capacity of 5,000–20,000 m³ a year. Due to the relatively small capacity of some sawmills, the prospects of entering of low competitive market for the sawn softwood plant in the Tyumen region seem to be bright.

OPPORTUNITIES FOR WOOD SUPPLIES

Wood species / assortments required: birch sawlogs.

Table 3
SWOT Analysis for Sawn Hardwood Production in the Tyumen Region

<p>Strengths</p> <ul style="list-style-type: none"> • Good availability of birch sawlogs • Know-how in sawmilling 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Low usage of hardwood in the local furniture industry • Quality of the birch logs is not sufficient for furniture-grade birch sawnwood
<p>Opportunities</p> <ul style="list-style-type: none"> • Future growth of Central Asian markets • Quality upgrading in domestic furniture markets 	<p>Threats</p> <ul style="list-style-type: none"> • Difficulty to serve the export markets due to long distance and delivery time • Wood supply chain cannot deliver logs without discolouration



Raw wood is sufficient for the production organization. Sorting practices of wood suppliers would need to be well managed. In long-term prospects the sawmill capacity can be raised to 50,000 m³ a year depending on the growth rate of wood production volume.

Price of wood: €28–38/m³.

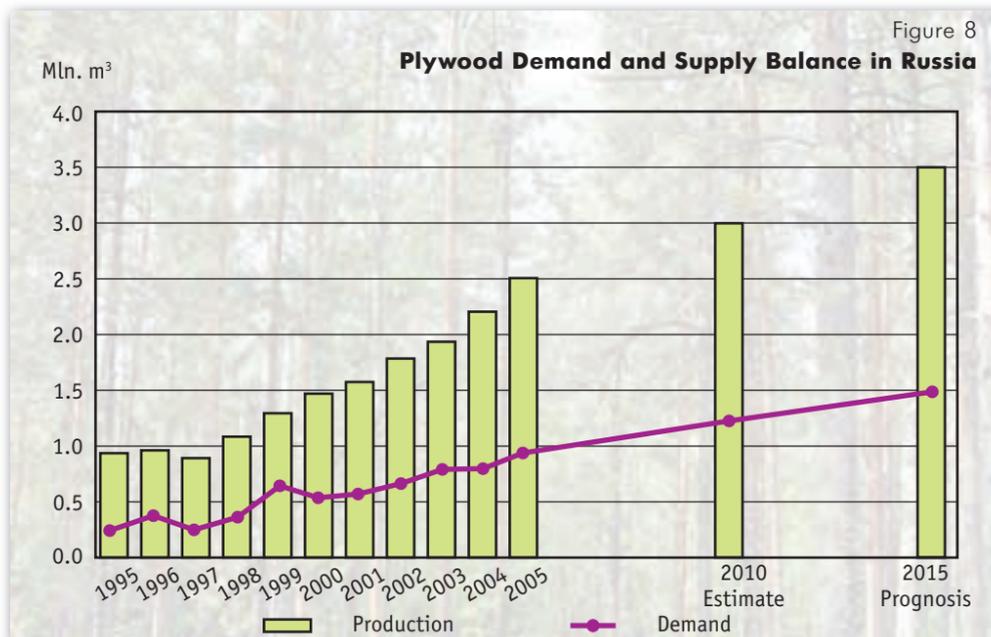
INVESTMENT COSTS

The main items of investment expenses are buildings and equipment. In general, taking into account the sawmill's production capacity, the volume of capital investments seems to be

reasonable and amounts to about €4 mln. The investment costs calculation is made without considering both customs duties on imported equipment and working capital, as well as land and infrastructure costs.

FINANCIAL PROSPECTS

With the enterprise working at project capacity, the net effective income from product sales will be €3.3 mln. a year. The total production expenses are €2.5 mln. Thus the annual gross profit will exceed €0.8 mln. With these rates the effectiveness (intrinsic profitability norm rate) of sawn hardwood production profitability is about 18%.



Terms of project effectiveness at a 10% discount rate – 6 years.

Current net value at a 5% discount rate – €3.9 mln.
Current net value at a 10% discount rate – €2 mln.

PROJECTS RISKS

Among the factors restraining sawn hardwood consumption growth are their end-use segments and raw material resources. Besides this, sawn hardwood is being replaced by other kinds of wood products, for example particleboards. To sell birch sawnwood at a better price the manufacturer must carefully keep under control the whole technological process chain.

The other risks are minimal and do not threaten the project effectiveness.

PLYWOOD PLANT

Taking into account a considerable amount of unused hardwood resources in the Tyumen region, this investment offer is made for birch plywood production.

The main end-use areas of plywood are the construction, furniture, packaging and transport industries.

The production capacity of the birch plywood plant is about 60,000 m³ a year, the estimated production maximum is 90% of the project capacity, that is 54,000 m³ a year. The consumption of raw material – high-quality birch veneer logs – is estimated at 150,000 m³ a year. Beside plywood, chips, sawdust and bark will be produced. The by-products can be used as

raw material for the production of particleboards, MDF boards and cellulose production. Plywood is produced using phenol-formaldehyde resin. The resin consumption is 64 kg/ m³. One of the advantageous points for setting the plywood plant in the Tyumen region is that the region has a synthetic resin plant.

The total capital investment volume is €48.5 mln. Construction of a new plant will take 1–2 years. About 60% of investment money is reclaimed during the first year, 40% – during the second year of the project realization. The number of personnel for the production service together with the technical-repair staff is 200 persons.

The production site area of a modern plywood plant should take 10–20 hectares. It is sufficient in case implementation of a second production line is needed or the introduction of wood-working production is in prospect. The supposed site for the setting of a plywood plant is located in the Yalutorovsk district, village Khokhlovo. It meets the following requirements:

- The optimum expenses for raw material and products transportation
- The possibility of a link-up with the high-voltage transmission line (the energy capacity of a plywood plant is about 4 MW)
- Automobile and railroad communication;
- High-skilled manpower
- The even relief, high bearing capacity of the soil

The type of property is municipal, the land category is settlement lands. There is a building-construction in progress, and a cold vaulted storage and buildings for the plumbing station

Table 4
Production and Consumption of Plywood

	Production	Import	Export	consumption
	1000 m ³ /year			
North America	16,500	6,800	1,500	21,800
Western Europe	2,787	5,632	2,530	5,889
Russia	2,233	43	1,438	838
Other countries of Eastern Europe	1,167	495	876	785
Japan	3,171	5,122	10	8,283
China	14,124	749	4,009	10,864
Other Asian countries	17,214	5,652	10,832	12,034
Latin America	4,878	417	2,794	2,501
Other World	1,336	205	445	1,096
total	63,410	25,115	24,434	64,090



(a boiler-house, a transformer unit, a pumphouse) on the site.

MARKETS

North America and China dominate the global plywood business accounting for 48% of the total production and 47% of the total consumption altogether. In Western Europe consumption exceeds production and it makes Europe an interesting market for Russian plywood producers. In Asia, Japan is also an important plywood market where consumption exceeds production by as much twice (see Table 4).

Both plywood production and plywood consumption growth is being observed in Russia. Domestic consumption growth (from 0.8 mln. m³ in 2004 to 1.5 mln. m³ by 2015) is prognosticated (see Figure 8). Such dynamics are determined by the rapid development of plywood-consuming industries.

Prices for plywood in Russia are somewhat lower than in Western Europe and range from 300 to 400 EUR/m³ depending on the thickness and sort of the product.

Prices for plywood in Central Asia are about \$100/m³ less than the average import prices in Europe. At the same time the average import prices (CIF) in Central Asian countries are obviously higher than the medium export prices (FOB) in Russia. In this case the difference

in prices is also \$100/m³ which testifies to relative attractiveness of Central Asian markets. In particular, the rapidly developing market of Kazakhstan is appealing for the plywood plant in the Tyumen region.

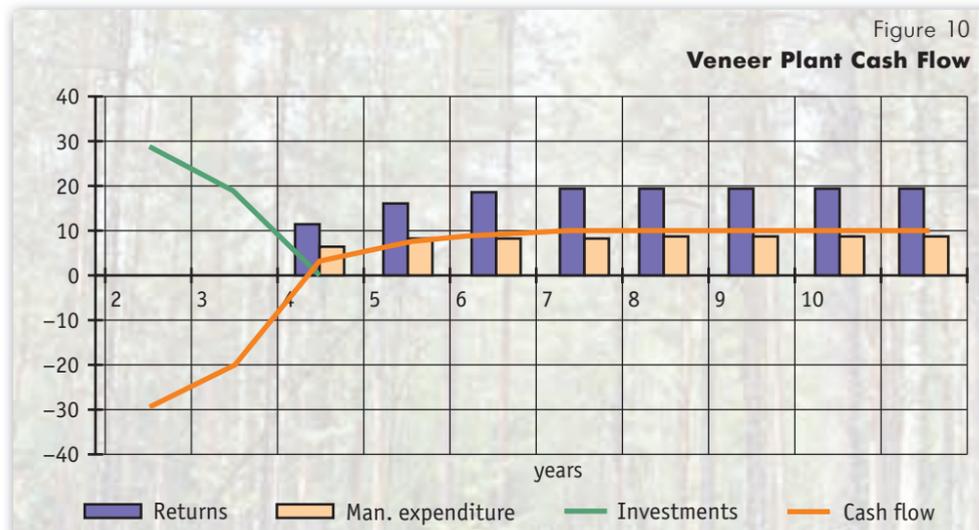
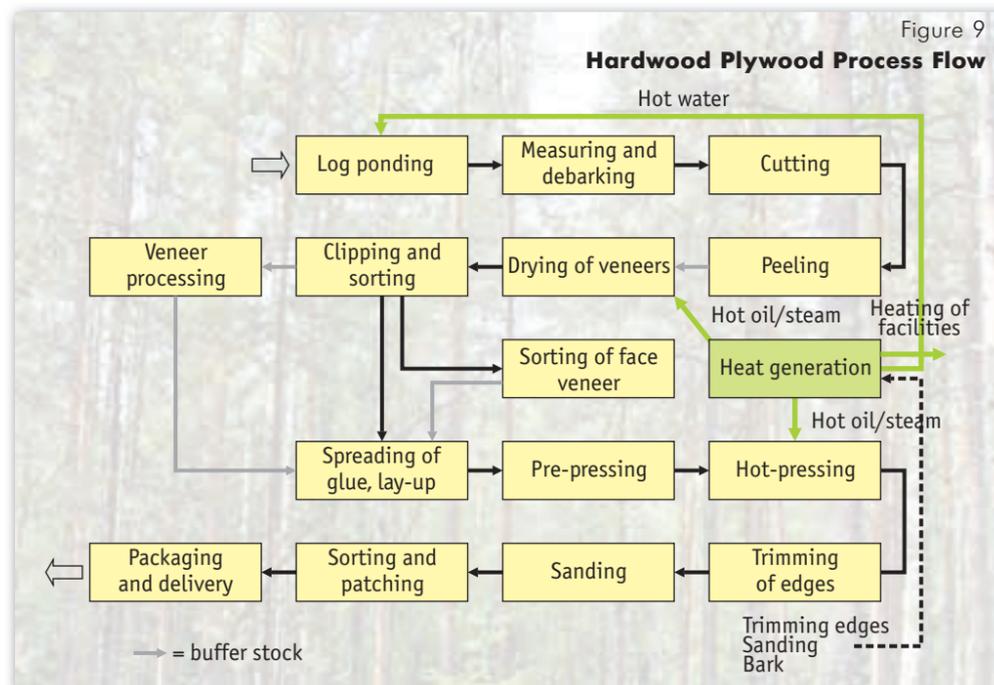
OPPORTUNITIES FOR WOOD RAW MATERIAL SUPPLIES

Wood species required – birch veneer logs.

The allowable cutting area for hardwood veneer logs in the Tyumen region is 2,084 thousand m³ a year while the real cutting volume is 158,000 m³, the domestic consumption is 116,000 m³ a year. Most of the hardwood logs cut are consumed by the functioning plywood plants. However the main deterrent for today is demand. With sufficient demand, due to the big share of birch in wood species distribution, the volume of birch veneer log supply can be growing. The estimated wood cost: €28–38/m³.

INVESTMENT COSTS

The main items of investment expenses are the building and the basic equipment (debarking, sawing, peeling, cutting, gluing, pressing, drying, and polishing machinery) that suits the technological process of plywood production (see Figure 9). The investment costs calculation is made without considering both customs duties on imported



equipment and working capital, as well as land and infrastructure costs. Total project cost is €48,5 mln.

FINANCIAL OUTLOOK

After the plant is up and running at full capacity the sale of produce will yield net profits of €19.95 mln a year. Total manufacturing expenditures will run up to €8.8 mln. Thus the annual pre-tax gross profit margin will exceed €11 mln. These figures guarantee the cost effectiveness (or internal rate of return – IRR) of veneer production at 14.2%.

The project's payback period at a 10% discount rate is 9 years.

Net present value at a 5% discount rate is €38.4 mln. Net present value at a 10% discount rate is €13.4 mln.

PROJECT RISKS

A veneer plant cost effectiveness ratio largely depends on changes in net selling prices and in volumes of production. Taking this into account it is important for an investor to elaborate marketing strategy aspects (to achieve effective marketing to increase the average net selling price) and to consider the idea of setting up a second production line, as well as to work out methods of offsetting losses in case of interruptions in production activities.

PARTICLEBOARD PLANT

The production capacity of a new competitive particleboard plant is 250,000 m³/year. Particleboard production can operate on any

Table 5
SWAT-Analysis for Plywood Production in the Tyumen Region

Strengths	Weaknesses
<ul style="list-style-type: none"> • Modern high-quality equipment • Local consumption growth • A producer of synthetic resin in the region 	<ul style="list-style-type: none"> • Remote location from markets, high transportation expenses • Difficult access to raw material
Opportunities	Threats
<ul style="list-style-type: none"> • Growing demand in Western Europe, possibilities of entering European markets • Central Asian markets, in particular Kazakhstan • Growing popularity of prefabricated wooden houses and blocks of flats • High added value, good income 	<ul style="list-style-type: none"> • Possible construction of a new plywood plant closer to consumption centers – Moscow, St. Petersburg • Competition from the neighbouring regions • Constant growth of railway tariffs



type of wood raw materials: sawmill chips, plywood waste, sawdust and roundwood. A plant requires 350,000 m³ of raw materials a year. The technical concept of a particleboard plant is briefly outlined in Figure 11.

The volume of investment is €67 mln. Setting up this production takes 1.2 years. 60% of investments is returned during the first year and 40% – during the second year. The production process described requires approximately 230 persons including maintenance and administration. The connected power of 15 MW will cover the energy demand of the plant. This production involves chemicals.

This production site, an area of 22 hectares, is situated in the Zavodoykovsk district in the Tyumen region, on the premises of the Zavodoykovsk Furniture Plant and is currently not used. It is in private ownership and the land is registered in the category of settlement area. The main advantages of this site, except ready-made production, storing and administrative facilities, is availability of wood, minimum expenditure on transportation of raw materials and production, functioning energy and water supply systems, motorways and railroads, flat landscape and high soil bearing capacity, and qualified personnel. Besides this, in this part of the region vast forest areas are being used by numerous wood-processing companies which are overstocked with poor-quality coniferous and deciduous

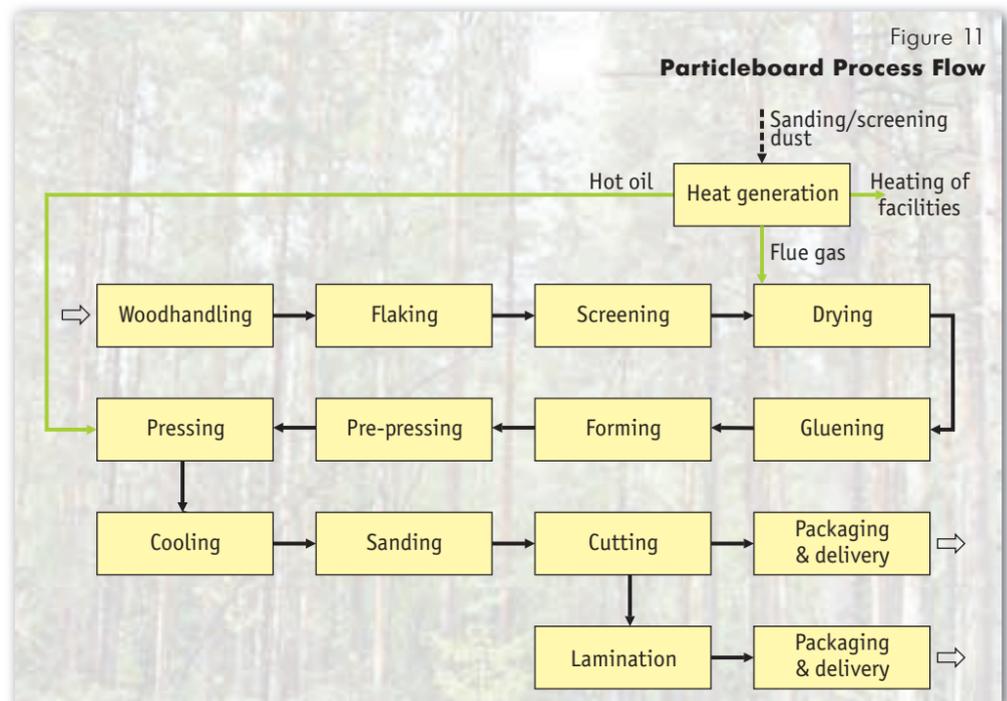
wood-products. This provides a reliable source of raw-materials for the production in question.

MARKETS

Western Europe dominates the particleboard business followed by North America and Eastern Europe. Russia consumes about 4.0 mln m³ a year, the current volume of production is 3.6 mln m³ a year, imports make up 0.4 mln m³ a year. China is an important consumer of particleboard, but only a marginal share of its demand, 7–8% is met by international trade. Particleboard is relatively cheap and, therefore, is not an object of international and transcontinental trade. Thus, Russian manufacturers export only 5% of their output to the CIS countries.

Demand for particleboard is expected to increase slightly in Western Europe, by 1.1% a year through 2015. In Russia, annual demand growth is expected to be 5.2% which translated into volume terms means a growth of around 270,000 m³ annually. Significant growth is expected to take place in the rest of Eastern Europe as well, by 3.7% annually.

Consumption in Japan is estimated to grow only by 0.9% annually while the demand in North America is expected to decline by – 1.2% annually during 2004–2015.



The most rapid growth is expected in China, approximately 8.3% or 870,000 m³ annually. Total global consumption is expected to increase by 2.6% annually.

The growth of economy means higher living standards and consequently higher demand for furniture and housing repairs. The greater demand in the market results in projects to construct particleboard manufactures in a number of counties.

There are two particleboard market-makers in the Tyumen region: Krasnyi Oktjabr, PLC, a particleboard mill with annual output of 100 000 m³, and Sibzhilstroj, PLC, a cement particleboard plant with annual output of 30,000 m³. There are also a few manufacturers in the neighbouring regions. The demand for particleboard on the part of furniture manufacturers in the Tyumen region is estimated at 90,000–100,000 m³ a year, while total demand for it in the Tyumen region and neighbouring territories is 600 000 m³ annually. Besides this, the total level of particleboard consumption in Kazakhstan, Uzbekistan and Kirgizstan is 270,000 m³ a year.

Furniture producers are the major consumers of particleboard, they account for 90% of total consumption.

Prices for particleboard in Russia are higher than, for example, in Germany and average at 150 euro/m³. It may be a good idea to export

particleboard from the Tyumen region to Central Asian countries which have the same prices.

Generally, at the level of competition existing in this market new enterprises are very admissible.

WOOD RAW MATERIAL SUPPLY SECURITY

Types of wood required/wood assortments: any pulpwood and fuel wood. The southern part of the Tyumen region is rather favorable in terms of wood raw materials supply. Wood costs €13–18/m³.

INVESTMENT OUTLAY

The major items among investment outlays are buildings and equipment produced by SCHENKMANN-PIEL-Engineering GmbH (pressing, grinding and sorting lines, etc.). The calculations below do not include tax on importing equipment, working capital, infrastructure and land costs.

Total project costs is €67.0 mln.

FINANCIAL OUTLOOK

After the plant is up and running at full capacity, the sale of produce will yield net profits of €49.6 mln a year. Total manufacturing expenditures will run up to €23.04 mln. Thus the annual pre-tax gross profit margin will exceed

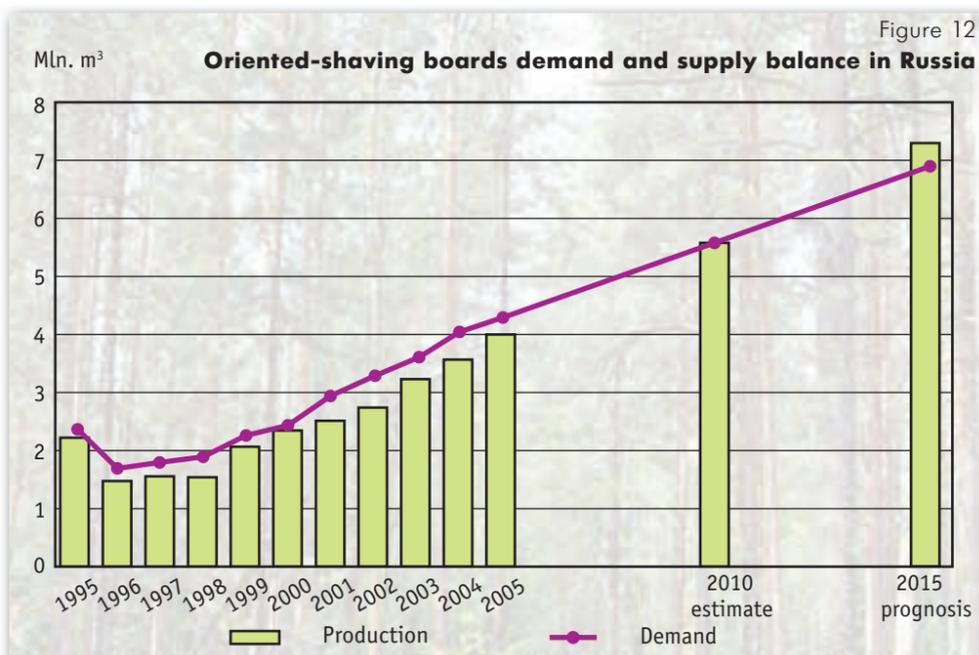




Table 6
SWOT Analysis for Particleboard production in Tyumen Region

<p>Strengths</p> <ul style="list-style-type: none"> • New plant / new technology • Growing local markets 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Remote location
<p>Opportunities</p> <ul style="list-style-type: none"> • Growing demand in Central Asia, in particular in Kazakhstan • Possibility to use locally produced synthetic resin for particleboard production in the Tyumen region • Growth in furniture production and wood-house building industries 	<p>Threats</p> <ul style="list-style-type: none"> • Constantly increasing railroad transport costs • Potential new mill in Russia located closer to consumption

€26.56 mln. These figures guarantee the cost effectiveness (or internal rate of return – IRR) of particleboard production at 25%.

The project's payback period at a 10% discount rate is 4.9 years.

Net present value at a 5% discount rate is €139.3 mln.

Net present value at a 10% discount rate is €79.1 mln.

PROJECT RISKS

A particleboard plant cost effectiveness ratio is highly sensitive to changes in net selling prices, in volumes of production and investment. It means that success in this business depends on the correlation between production capacity and marketing strategy. One of the factors securing high cost effectiveness is integrated lamination. IRR indicators remain high only if laminated particleboard makes up a good share of the output. The cost effectiveness depends also on

the considerable price gap between uncoated and laminated particleboard.

Particleboard production is relatively environment-friendly. It requires small amounts of urea-formaldehyde resin, wax and other chemicals.

Other risks depend on the project's aims and strategy of its implementation.

MEDIUM DENSITY FIBERBOARD (MDF) PLANT

The production capacity of the projected plant is 220,000 m³ a year. The raw material for this production consists of all kinds of green wood: sawmill chips, sawdust, plywood waste, and round wood. Spruce is the best raw material because of its light colour and long fiber. Other potential wood species are pine, aspen and birch. This production requires 340,000 m³ of wood waste or round wood a year.

Figure 13

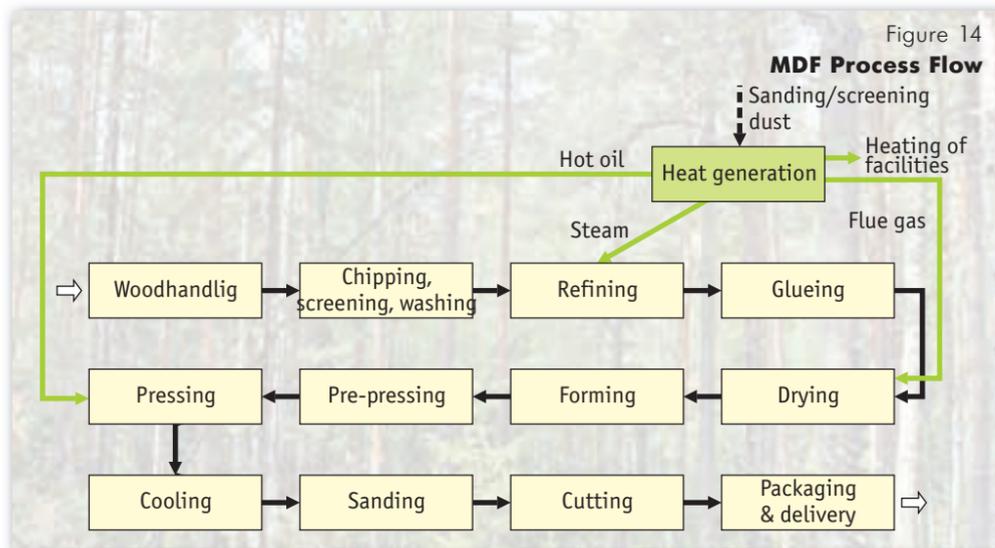
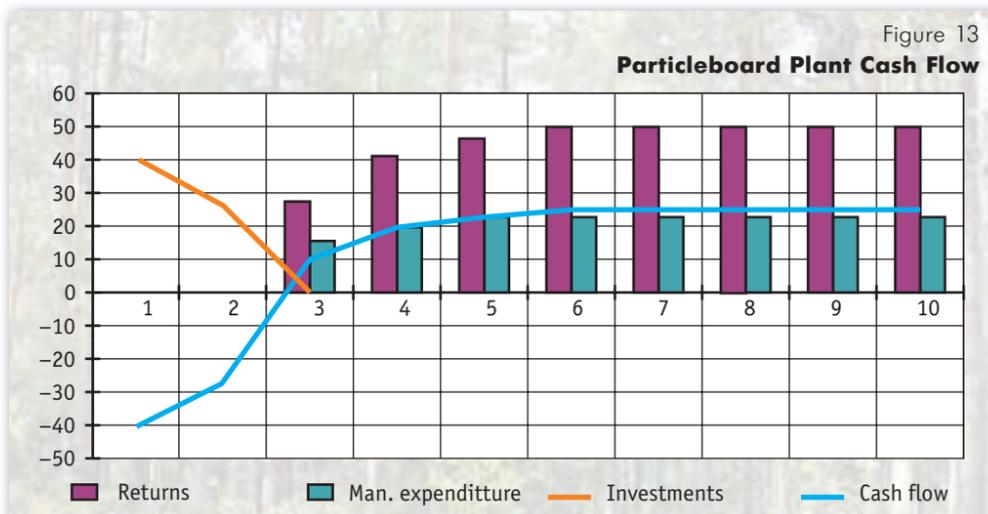


Figure 14

The volume of investment required is €77.5 mln. Setting up a new MDF plant takes 1.2 years. Similarly to other wood board plant projects, 60% of investments are projected to be absorbed during the first year and 40% – during the second year. The production process described requires approximately 170 people including maintenance and administration. The connected power of 15 MW will cover the energy demand of the plant. This production involves chemicals.

In principle, the MDF process is very similar to the particleboard process, the main difference being that wood is disintegrated into fibres and not into larger particles (see Figure 14).

The production site recommended for this project has an area of 25 hectares and is situated in the Tobolsk industrial area in the Tobolsk district of the Tyumen region. This site was chosen because of the availability of raw material (annual allowable spruce cut in the Tobolsk district and the neighbouring Uvat

district is over 500 thousand m³), because it is easily reached, has electrical, plumbing and gas provisions, convenient local railways and can be provided with qualified local labor. The site is in municipal ownership, the land is registered in the category of industrial area. There are arched constructions and a no-heating production building of reinforced concrete.

China is the greatest MDF market followed by Western Europe and the rest of Asia. In Western Europe, MDF production exceeds consumption which makes the region a net exporter of MDF panels. In Russia, demand exceeds production whereas the rest of Eastern Europe is a net exporter of MDF panels.

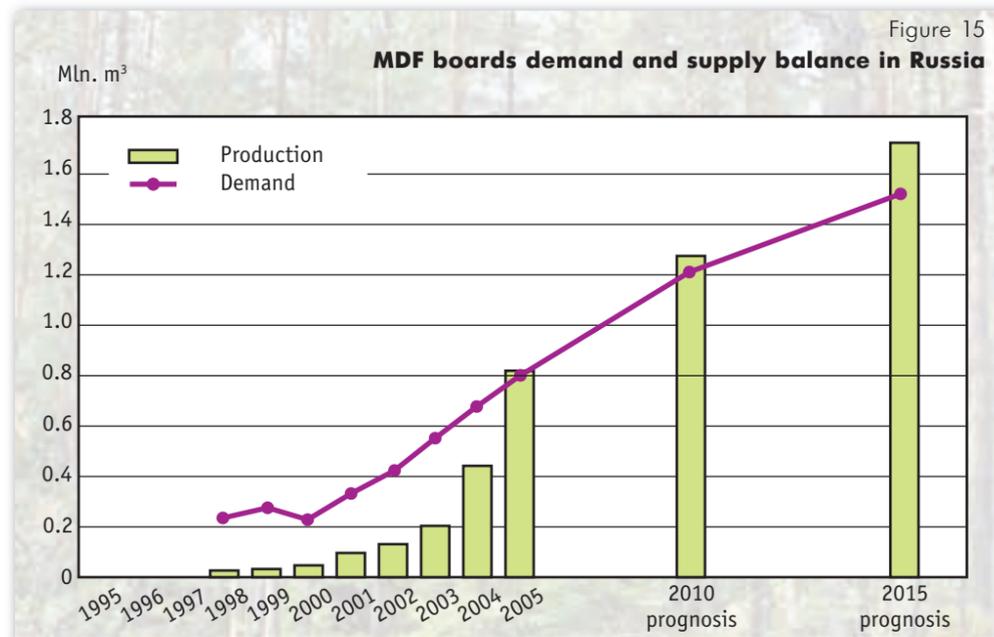
MDF trade is characterized by the high volume of internal trade in Western Europe.

MDF demand is expected to grow in every region of the world through the period of 2004–2015. The greatest growth by volume,

Table 7

SWOT Analysis for a New MDF Plant in the Tyumen region

<p>Strengths</p> <ul style="list-style-type: none"> • New plant/new technology • Growing local markets • A lot of raw materials 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Remote location • Local consumption is still low
<p>Opportunities</p> <ul style="list-style-type: none"> • Increasing demand in Central Asian countries • Tyumen-based furniture industry's growth. 	<p>Threats</p> <ul style="list-style-type: none"> • Constantly increasing transport costs • Potential new MDF plant closer to domestic consumption centres



1.7 million m³, and in percentage terms, 8.3%, a year is predicted in China. Demand in Russia is expected to increase by 7.4% annually over the same period of time, while Eastern European markets are expected to grow by 6.8% a year. Slowest annual growth is expected in Japan (0.9%) and Western Europe (2.5%).

Total volume of MDF production in Russia is 433,000 m³ a year, the annual demand being 683,000 m³.

In 2005 new MDF plants were put into operation in the Kostroma and Moscow regions which led to a reverse situation in the market: now supply exceeds demand; thus, most imported MDF was replaced by domestically produced MDF.

Higher demand for furniture and laminated floor covering will favor the growth in national production of the boards in question. The expected growth of MDF consumption in Russia is 1.5 mln m³ through 2015. In particular according to the Pöyry company, demand for MDF in the Tyumen region along with nine nearby Russian regions is about 100,000 m³ a year, and in Kazakhstan, Uzbekistan and Kirgizstan – 10,000 m³ a year. The main local MDF producer is a plant situated in the Mortka settlement of the Kondinsk district, Khanty-Mansiysk Autonomous region. MDF prices in Russia average at 260 euro/m³. MDF prices in Kazakhstan are typically at par

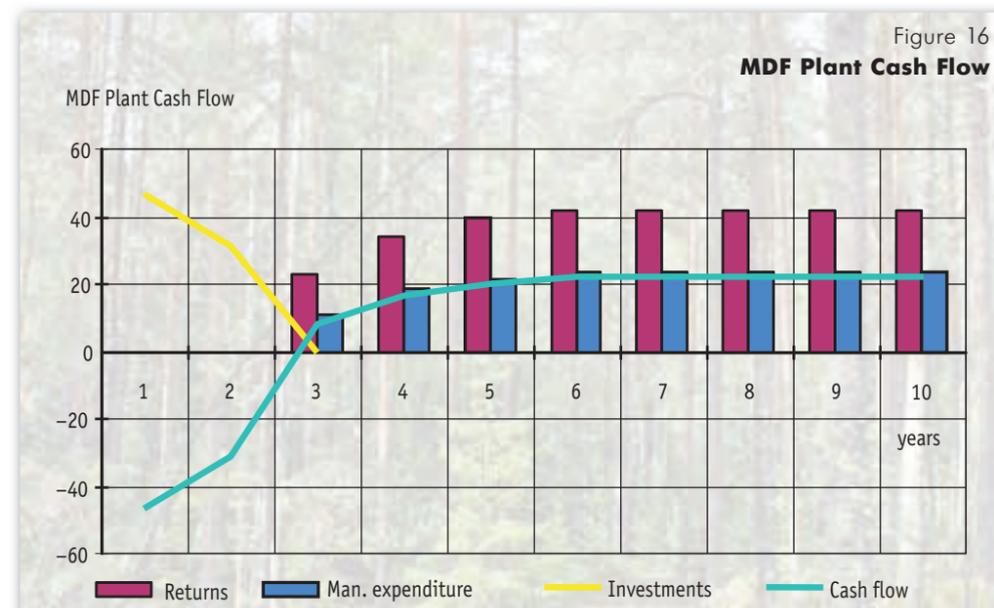
with those in Central Europe but higher than in Russia. Delivered prices in Kazakhstan are even higher than in Western Europe due to high transport costs and the deficit in the market. If the market's growth continues strong, the Central Asian region would provide an attractive target market for Tyumen-based production in the future. The majority of production should, however, be targeted to local Western Russian customers.

WOOD RAW MATERIAL SUPPLY SECURITY

Types of wood required/wood assortments: any pulpwood and fuel wood. The main lumbering areas are situated in central, southern and southeastern part of the Tyumen region. Wood requirements in MDF are rather strict. Mixing of different wood species should be avoided, and preferred wood is definitely light coloured softwoods. Wood costs €13–18/m³.

INVESTMENT OUTLAY

The major items among investment outlays are buildings and equipment. In general taking into account production the capacity of a new MDF plant, the required volume of investment can be considered moderate. The calculations below do not include tax on importing equipment and do not account for working capital, infrastructure and land costs. Total project cost is €77,5 mln.



FINANCIAL OUTLOOK

After the plant is up and running at full capacity the sale of produce will yield net profits of €42 mln a year. Total manufacturing expenditure will run up to €23.5 mln. Thus, the annual pre-tax gross profit margin will exceed €18.5 mln. These figures guarantee the cost effectiveness (or internal rate of return – IRR) of particleboard production at a 19.3%. Figures 43 and 44.

The project's payback period at a 10% discount rate is 6.4 years.

Net present value at a 5% discount rate is €105.4 mln. Net present value at a 10% discount rate is €52.3 mln.

PROJECT RISKS

MDF production cost effectiveness is less sensitive to freight costs than for example, that of particleboard production. Therefore it is a good idea to do detailed technical and economic research to assess the expediency of an MDF plant in the Tyumen region.

In case of export from the Tyumen region to far-away countries, production becomes unprofitable because of high freight, forwarding and customs processing costs (€65-110/m³). This makes domestic and Central Asia markets attractive.

The use of several wood species with different properties makes the manufacturing more complicated, because the various species must

be fed into the process in a controlled manner ensuring that the proportions of the various species remain constant.

MDF board production is relatively environment-friendly. It requires urea-formaldehyde resin, wax and small amounts of other chemicals.

Other risks do not have a significant influence on the project.

OSB PLANT

Under this project investors are offered to set up a competitive OSB plant with the capacity of 350,000 m³ a year. The calculated amount of wood raw material necessary is 630,000 m³ a year. The total investments required to carry out this project is assessed at €87.5 mln. Setting up a new OSB plant will take 1.2 years. 60% of investments are projected to be absorbed during the first year and 40% – during the second year of the project. The required number of personnel is approximately 280 people. The connected power of 15 MW will cover the energy demand of the plant. This production involves chemicals.

The production site recommended for this project has an area of 20 hectares and is situated in The pamjatnoe settlement of the Yalutorovsk district, in the Tyumen region. The land is registered in the category of industrial area, the site is in municipal ownership. There are no buildings or constructions there.



Table 8
SWOT Analysis for a New OSB Plant in Tyumen region

<p>Strengths</p> <ul style="list-style-type: none"> • New plant/new technology • Growing demand linked in particular to the development of prefabricated wooden house market 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Consumers' lack knowledge of the product • Lack of standardization • Remote location
<p>Opportunities</p> <ul style="list-style-type: none"> • This first Russian manufacturer will form the market 	<p>Threats</p> <ul style="list-style-type: none"> • Unreliable demand of products in the country • New product on the market • Potential new mill closer to main consumption centers • Increasing transport costs/railway tariffs

The main advantages of this site are availability of wood, economic logistic costs, functioning energy and water supply systems, motorways and railroads, flat landscape and high soil bearing capacity, and qualified personnel. Besides this, in this part of the region vast forest areas are being used by numerous wood-processing companies which are overstocked with poor-quality coniferous and deciduous wood-products. This provides a reliable source of raw-materials for the production in question.

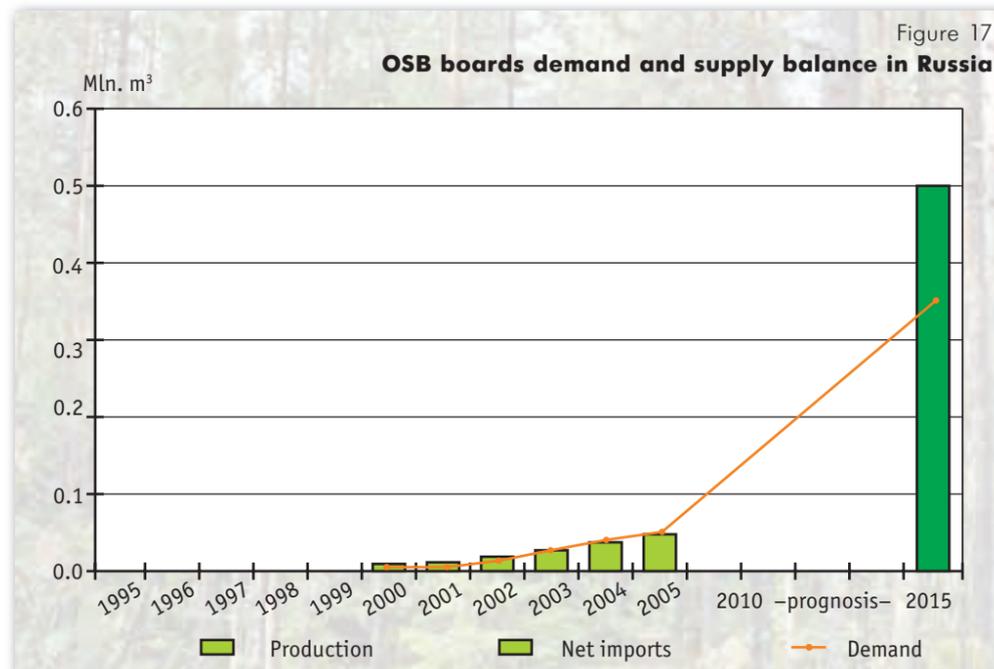
MARKETS

North America dominates the production and consumption of OSB in the world. Its share of

global production is approximately 87% (21,300 thousand m³) and the share of consumption is 88% (21,600 thousand m³). This is because OSB was invented in the USA.

OSB trade is characterized by internal trade flows in North America and Western Europe. Other important trade flows are from North America, Eastern and Western Europe to Japan.

The Russian OSB market is in an embryonic stage. There are no domestic OSB plants at the moment, and consequently 100% of the market is based on imports (35,000 m³ a year). The Swiss Krono company and Kronospan Group are main importers of OSB in Russia.



The potential demand for OSB could rise to a high level following the demand for prefabricated wooden houses in the country. A projected OSB plant would require the end use market comprising 30,000–35,000 new prefabricated houses per year (70–90 full scale timber frame house factories). The forecast balance of supply and demand for OSB in Russia is shown in Figure 48.

In addition, taking into account low manufacturing costs, as compared to European manufacturers, the plant built under this project can be export oriented, in particular the Chinese market looks promising (its growth rate is forecast at 8.3% a year while the average world growth rate is only 4%), as well as Kazakhstan and other Central Asian countries' markets.

Current OSB prices in Russia are around €340–370/m³ including VAT and delivery costs. Prices are significantly higher than for example in Germany where the current price is around €260/m³. The reason behind high prices is that OSB has a lack of local production, high customs duties and expensive freight.

This project can be economically successful if supported by state authorities, for example within the framework of the national program "Available and Comfortable Housing".

WOOD RAW MATERIAL SUPPLY SECURITY

Wood species/assortments required: aspen pulpwood, and softwood pulpwood. Availability

of aspen is poor but complemented with softwood pulpwood it can provide a basis for OSB production. Maximum additional production based on the Tyumen region wood supply potential is 300,000 m³ a year. Price of wood: €15-20/m³.

INVESTMENT OUTLAY

The major items among investment outlays are buildings and equipment. The calculations below do not include tax on importing equipment and do not account for working capital, infrastructure and land costs.

Total project costs is €87.5 mln.

FINANCIAL OUTLOOK

After the plant is up and running at full capacity the sale of production will yield net profits of €47 mln a year. Total manufacturing expenditure will run up to €31 mln. Thus the annual pre-tax gross profit margin will exceed €16 mln. These figures guarantee the cost effectiveness (or internal rate of return – IRR) of OSB production at about 15%.

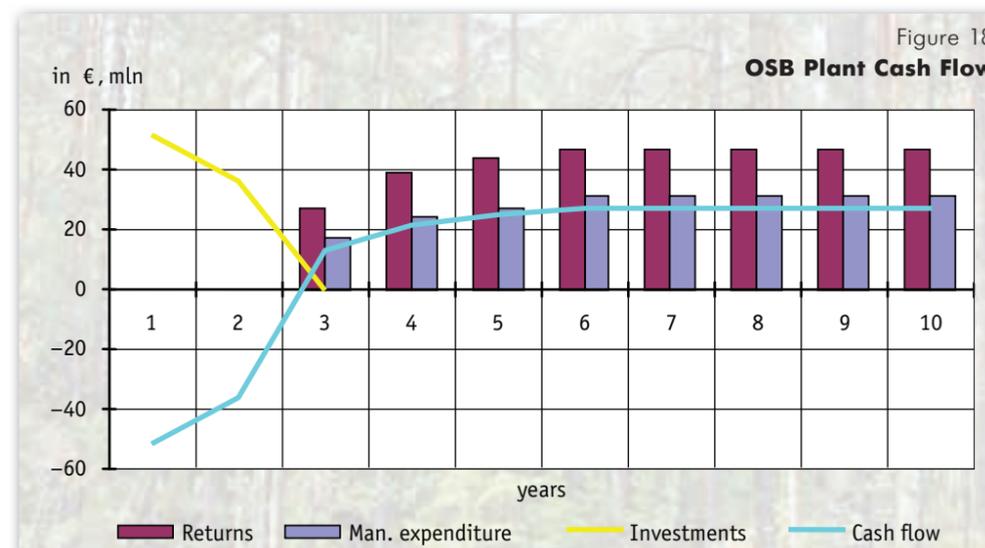
The project's payback period at a 10% discount rate is 7.5 years.

Net present value at a 5% discount rate is €112.5 mln.

Net present value at a 10% discount rate is €62.5 mln.

PROJECT RISKS

A modern competitive OSB plant has a capacity of 300,000–350,000 m³ annually. In view of this,





the domestic market is too small for a world scale line, and therefore marketing possibilities for new investments in this particular industry segment appear limited.

A full scale OSB plant (300 000-350 000 m³/a) could edge its way onto the Russian markets if it substituted the whole low-quality hardwood plywood market in the country, and provided a many-fold supply for the timber frame housing market developing in Russia.

Other risks depend on the project's aims and the strategy of its implementation as well as on the state policy in house-building sector.

PREFABRICATED WOODEN HOUSE PRODUCTION

The production capacity of a prefabricated wooden house plant is 500,000 m² a year (2,000–2,500). The estimated amount of sawn raw material required is 300,000m³ a year. The sawn wood undergoes advanced processing and is used as raw material to produce LVL, panels, windows, doors, etc. for prefabricated wooden houses.

The total investments required to carry out this project on the Siburlesprom, PLC base is assessed at €10 mln. It will take at least a year to reorganize the production process. The number of personnel required is approximately 500 people. The production will take 15 MW of connected power.

The location of the production site recommended for this project is Tyumen, Kamchatskaya Street,

194 (Lesobasa district). The site has convenient local railways and motorways, electrical, plumbing and central heating provisions, buildings and constructions, etc. The site is in the private ownership of Siburlesprom, PLC.

Siburlesprom, PLC was chosen as the base for the prefabricated wooden house project because in addition to all the necessary infrastructure services, it owns a system of auxiliary production facilities for carrying out an integrated project.

MARKETS

Wooden house building is a fast-moving sector of house-building in the USA, Canada, Finland, Germany, France, Japan, South Korea and other countries.

This market is presently taking shape in Russia. Despite of the six-fold increase in the production volume over the last 10 years, Russia still uses 20 times less wood in house building than Finland or Sweden. The ratio of houses made of wood as the main constructive material to the total number of houses made available was 8.2% in 2005 and to the total number of low rise buildings.

The promising but underestimated wooden house building market in Russia is operated by quite a number of companies which produce wooden houses; Wuokatti-Rus, Honka, Kontio, etc are leaders in the market.

The industry experts predict a two-fold growth of the wooden house market by 2010; in absolute

figures it will amount to 8.5 mln m². This trend is explained by the changes people's income and greater demand for low-rise houses.

The production cost of the wooden part of a house is \$200/m² and over, and it depends on the type of technology used and the way the production is organized. The final price of a house is affected by a number of factors including geologic site survey costs, the quality of decorating materials and type of main services supply. The average price for a wooden house in the fast-growing Tyumen market is \$500/m².

WOOD RAW MATERIAL SUPPLY SECURITY

Types of wood required/wood assortments: pine, fir and cedar saw log.

Raw wood materials are available in good quantity and don't restrict the potentialities of production setup, but the general plantation of trees in the northern part is difficult to access. The current volume of soft wood stock is about 0.7-0.8 mln m³ per year, including about 50% of saw logs. The delivery of wood raw material will be performed via railway and motor transport.

Approximate wood cost: €25–38/m³.

INVESTMENT OUTLAY

The basic capital investments should be directed to the purchasing and upgrading of manufacturing equipment. The calculations below do not include tax on importing

equipment, working capital, infrastructure and land costs.

To achieve efficient production, high-quality machining facilities and special-purpose hand electric tools should be used.

Total project cost is €14.9 mln.

FINANCIAL OUTLOOK

Net profit from selling the product at planned production capacity will be €6.78 mln per year. Total manufacturing expenditure – €4.4 mln. Thus the annual pre-tax gross profit margin will exceed €2.38 mln. These figures guarantee the cost effectiveness (or internal rate of return – IRR) of the production of prefabricated wooden houses at a 19%. Figure 54 shows the cash flow of the plant.

The project's payback period at a 10% discount rate is 6 years.

Net present value (NPV) at a 5% discount rate is €12.5 mln.

Net present value at a 10% discount rate is €6,5 mln.

PROJECT RISKS

The safety of business depends on a high-quality raw materials base, for this reason it is advisable to take part in competitions and conclude a forestry lease contract. The project involves the problem of lumbering and house-building waste recovery.

The technical risk is linked with the coordination and management of new and existing

Table 9
SWOT Analysis for the Production of Prefabricated Wooden Houses

<p>Strengths</p> <ul style="list-style-type: none"> Existing enterprise/new equipment High demand and low rates of traditional house-building 	<p>Weaknesses</p> <ul style="list-style-type: none"> Lack of standardization, territory planning, engineering infrastructure Remote location Lack of related materials and component parts production
<p>Opportunities</p> <ul style="list-style-type: none"> State support of low-rise houses building (national project "Available and comfortable accommodation") Real estate mortgage development 	<p>Threats</p> <ul style="list-style-type: none"> Psychological inexperience of people Realization of similar investment projects in the Central part of Russia Constantly increasing railroad transport costs





manufacturing equipment, which should make up a unified complex.

By now there is no adequate market of accessories and materials suppliers (for example, OSB), as well as service contractors.

Among other risks there is the imperfection of a normative base, lack of well-grounded system of low-rise housing quality parameters and their assessment methods, and insufficient support for quality evaluation of new wooden component parts and structures used in house building.

Logging Enterprise

From the forest resource and wood processing industry perspective the Tyumen region can be divided into two sub-areas:

- Northern (Uvat, Tobolsk area and the right-bank territory of the river Irtysh in the Vagaysk area)
- Central (Yarkovo, Zavodoukovsk, Yalutorovsk, Nizhnyaya Tavda, Uporovo, Isetsk, Yurga, Omutinskoye and Tyumen areas).

The main part of forest resources and the only unexploited areas in the region are located in the north. This part of the region features higher labor costs, caused by the dominant role of oil companies operating in the region. The region's harvesting companies' revenues are partly based on services they render to oil companies, including road construction, etc.

The northern part of the Tyumen region fully relies on a single road and railroad whose capacities are to a large extent utilized today. This part of the Tyumen region is almost entirely covered with swampy/inundated areas, which make harvesting and wood transportations possible only during winter months.

The central part of the region is industrially the most developed area. Furniture, panel and sawn timber industries are located here. The central part of the Tyumen region has a better road network and consequently, more utilized forest resources. It also features lower cost and higher quality of labor. Despite the quite modest volume of the annual allowable cut, a considerable portion of harvesting in the Tyumen region takes place here due to developed infrastructure and short transportation distances. Summer harvesting is

possible. Softwood resources are insignificant while hardwood resources are dominated by birch.

The southern part of the region is well covered by a road network but lacks significant forest resources. Forests are scattered and no commercial harvesting operations exist in the area. This part of the Tyumen region hardly offers any opportunities for the development of either harvesting or wood processing operations.

In view of the aforesaid, the suggested strategy of harvesting operations calls for the distribution of production facilities in the northern (particularly, softwood felling) and central manufacturing centers (particularly, hardwood felling). The prospective sites for the distribution of production facilities are in Turtas village, Uvatsk area and on the basis of LLC "Yalutorovsklesprom", in Yalutorovsk. Both sites are municipally owned. The site of LLC "Yalutorovsklesprom" is equipped with all the necessary units for receiving, sorting, primary conversion and shipping of timber: storage and administrative facilities, equipment service park, support units (boiler-house, transformer unit).

So far, lack of road network has been the biggest bottleneck in harvesting development in the area. Assuming that the additional required wood volume (i.e. 1.5 million m³) for the northern part of the Tyumen region can be sourced from a region where the share of mature and overmature forests is some 50% and that the average wood volume in mature and overmature stands is some 150 m³/ha (conservatively estimate), the total area needed to be covered by a forest road network is some 20,000 ha annually. The corresponding road construction costs are estimated at the level of 275 mln rubles per year corresponding to €7–8 mln. per year.

Thus, the investments will reach about €7–8/m³ of harvested wood. This cost estimate is on the conservative side and illustrates a maximum level of investments required for road construction. The key sensitivities in this regard are soil type, availability of gravel for road construction and possibilities to allocate harvesting operations to areas where the share of mature and overmature forests is high. However, it should be taken into account that TNK-BP, in view of developing northern oilfields, is planning the construction of a road network, which will be used by a logging enterprise, too.

Table 10

SWOT Analysis for a New Logging Enterprise in the Tyumen Region

<p>Strengths</p> <ul style="list-style-type: none"> • Modern, high-quality equipment • Growth of local consumption • Convenient infrastructure for external transportaion 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Remoteness from markets, high transport costs • Hard-to-reach raw materials
<p>Opportunities</p> <ul style="list-style-type: none"> • Markets of Central Asia – in particular, Kazakhstan • Growing popularity of wooden house-building • Construction of forest roads together with TNK-BP • Usage of aeronautic transport (airships) 	<p>Threats</p> <ul style="list-style-type: none"> • Competition from neighbouring regions • Constantly increasing railroad transport costs

MARKETS

In the Tyumen region, the wood balance, which is the difference between roundwood production and local consumption, is slightly positive for all wood species/assortments (see fig. 57).

The Tyumen region is neither a significant source of wood nor a significant target market for external wood supply.

The chart above shows the range of wood market prices related harvesting costs. Prices are shown as a range with minimum (blue) and maximum (red) levels. Actual price for a potential project would depend on required volumes and wood procurement management. Obviously, wood coming from more remote areas would be more expensive with a price close to maximum level within the range.

Price levels in the Tyumen region are comparable with the Russian Ural/Western Siberian region. The key issue for the region is low supply. Currently it is compensated with low demand but in case of new production, wood supply issues would need to be addressed and managed in order not to end

up in a situation where prices would grow just because harvesting volumes are insignificant.

Implementation of recommended investments, together with the prospects of existing wood-working enterprises development, would require increase of the current harvest level from 1.68 mln m³ per year to 3.3 mln m³ per year. In practice, the increase means that for softwood the utilization rate of softwood AAC (annual allowable cut) increases from 10 to 30% and the utilization rate of hardwood AAC increases from 3 to 25%. This is well achievable. The wood assortments determining the level of harvesting operations in the future are also softwood and hardwood sawlogs/plylogs and harvesting operations will lead to excess volumes of pulpwood in the future (the excess pulpwood volume being some 1.0 million m³ per year). This excess pulpwood volume can form the basis for further expansions in OSB and particleboard capacities.

It is reasonable to ship the excess of wood stock into the market of Central Asia (Kazakhstan, Uzbekistan), suffering from a shortage of forest resources.

Table 11. **Future Production Volumes and Industrial Wood Demand**

Product	Production volumes, 1,000 m ³ per year	Unit wood consumption, m ³ /m ³	Wood demand, 1,000 m ³ per year
Softwood sawnwood	250	2,05	513
Hardwood sawnwood	40	2,6	104
Plywood	140	2,8	392
Particleboard	350	1,55	543
MDF	220	1,67	367
Total industrial wood demand			1918



INVESTMENT OUTLAY

Development of harvesting operations with the capacity of 1.0–1.5 mln m³ per year would also require investments into machines and equipment (in total of €30 mln). It needs to be remembered though that despite having significantly different investment requirements, different harvesting methods are not that different in terms of total harvesting costs. So, lower initial investments inevitably result in higher operating costs due to lower productivity and vice versa. The calculations for this project provide for the application of a highly-mechanized Scandinavian method, implying the use of multifunctional harvesters, forwarders, and imported heavy-load log trucks.

FINANCIAL OUTLOOK

The average price for roundwood selling is 900–1,300 rubles/m³, which is 200–250 rubles (€5.5–7) more than its storage net cost, regardless of its quality grade and sort. With a sales volume of 1 mln m³ per year, the project profitability will be 22%. The cash flow of the enterprise is shown in figure 60.

The project's payback period at a 10% discount rate is 7 years.

The project's payback period without any discount is 5.25 years.

Net present value (NPV) during the 15-year period of the project's realization at a 5% discount rate is a €29.17 mln.

Net present value at a 10% discount rate is €13.35 mln.

PROJECT RISKS

The profitability of logging enterprise is most sensitive to changes in production costs and sales volumes, as the sales price is mostly dependent on the demand for the produce of more advanced processing. Under these circumstances, investors should carefully consider such issues as operational and capital outlays, the conditions for more advanced processing.

To prevent the risk of tariff growth, transport cost growth, to decrease the expenses of access to raw materials, it is recommended to use an airship as a means of equipment and produce transfer. The cost of an airship is comparable to the annual costs of forest roads construction, and shipment profitability is 6 (!) times higher than by means of traditional shipping, besides, carrying capacity of an airship is from 100 to 400 tons.

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THE LEADING ENTERPRISES OF THE TYUMEN REGION

Company's Name	Activity	Address	Contacts
DOK KRASNY OKTYA-BR, OJSC	Furniture manufacture, manufacture of oriented shaving boards, lamination of oriented shaving board, impregnation of paper	625001, Tyumen, Kombinatnaya Str., 60 Russia	Ph.: +7 (345-2) 43-30-50, 43-14-14, 43-42-12
GELIOS PLUS, CJSC	Timber cutting, manufacture of saw-timbers, planing manufacture	627017, Tyumen region, Yalutorovsk, Zheleznodorozhnaya Str., 19 Russia	Ph.: +7 (345-35) 221-53
INTEDI, Furniture plant	Furniture production		Tyumen, Ph: +7 (345-2) 75-48-64, 75-48-69; Yalutovsk, Ph: +7 (3453-50) 2-47-70 fmintedi@mail.ru www.intedi.ru
KEDR, CJSC	Manufacture of saw-timbers and windows	652048, Tyumen, Kholodil'naya Str., 114, office 51 Russia	Ph.: +7 (345-35) 3-17-41
REGIONLESPROM, CJSC	Timber cutting, manufacture of saw-timbers, planing manufacture	625000, Tyumen region, pos. Levashi, Rabochaya Str., 47 Russia	Ph.: +7 (345-2) 730-721
SIBURLESPROM, OJSC	Lamination of oriented shaving board, wooden houses, windows, doors	625034, Tyumen, Kamchatskaya Str., 194, office 306 Russia	Ph.: +7 (345-2) 482-615, 482-607
SIBSTROYKOMP, CJSC	Saw-mill manufacture and manufacture of windows	625034, Tyumen region, Tyumen, Zaslonoa K. Str., 37, Lesobaza district, next to the crossing Russia	Ph.: +7 (345-2) 48-21-64, 48-21-65
SIBZHILSTROY, OJSC	Saw-mill manufacture, manufacture of houses production of cement-shaving plates, manufacture of saw-timbers for own need	625530, Tyumen region, Tyumensky district, pos. Vinzili, Zavodskaya Str., 15 Russia	Ph.: +7 (345-2) 728-428, 728-100, 728-646
TURTAS, OJSC	Timber cutting, manufacture of saw-timbers and joiner's shop	626191, Tyumen region, Uvatsky district, pos. Turtas, Lenina Str., 25 Russia	Ph.: +7 (345-61) 25-5-94, 2-55-47 lpturtas@mail.ru www.turtas-les.ru
TYUMENSKY FANERNY KOMBINAT, OJSC	Woodworking and furniture industry. Manufacture of plywood	625005, Tyumen, Beregovaya Str., 109 Russia	Ph.: +7 (345-2) 46-27-16, 46-23-31, 46-24-29, 46-44-25 tumfk@sibtel.ru
TYUMENSKAYA LESNAYA KOMPANIA, Ltd.	Timber cutting, manufacture of saw-timbers carpentry production	625034, Tyumen, Kamchatskaya Str., 39 Russia	Ph.: +7 (345-2) 485-554
YUNION-TYUMEN, CJSC	Manufacture of the glued plywood, wood plates and panels	625047, Tyumen, selo Antipino, 7th km of Starogo Toboljskogo Trakta, Str. 3 Russia	Ph.: +7 (345-2) 214-751, 780-620
ZAGROS, CJSC	Construction and production of woodworking products, joinery manufacture (windows, doors)	627140, Tyumen region, Zavodoukovsky district, Komsomolsky pr. Russia	Ph.: +7 (345-42) 745-836
ZARECHYE, OJSC	Furniture production	625005, Tyumen, Bolshaya Zarechnaya, 41, Russia	Ph.: +7 (345-2) 25-59-06, Fax: +7 (345-2) 46-01-21 www.zarechye.ru



CHINA — HOW IT LOOKS FROM THE RUSSIAN SIDE

In recent years, China has been one of the major players in the arena of international politics. Such success can't avoid drawing interest and reasonable envy from other economically developed countries, as even now China increasingly provokes competition in some industries, not only by its prices but also by its quality.

Active external economic link development is mainly what explains Chinese success. And China's main partner within the timber complex is Russia. Read how Chinese and Russian cooperation is developing.

THE EVIDENCE

This picture is not pretty. Day and night, a long chain of wagons carrying Angarian Pine disappears from the Russian Far-East and Siberia. They are on their way to China. What for?

The main gate in China for Russian wood is the Manzhouli railway station. This town is an important gateway for timber and oil from Western and Eastern Siberia. Each day, about 18,000 m³ of Siberian pine and birch logs are reloaded there and sent throughout China.

Near the station logs are re-sorted by diameter, loaded by trucks or by wagons and sent to woodworking facilities. They saw, dry, chip, and produce furniture, and export to 30 countries (mainly the US).

WHO IS BENEFITING?

The Chinese work 24 hours 8 days a week. They get 70 euro per month and are happy to have the work. Their companies are happy to get the raw material from Russia, cheap labor, and growing US consumption.

The trading companies in importing countries, including US and European consumers, enjoy unbeatably priced wood products.

Western and Chinese investors alike are more than glad to invest in this growing industry.

And after all, Russian logging companies are happy to cut, load, send, get the money and forget about it.

WHO IS LOSING OUT?

The answer is the people living in Siberia and the Russian Far-East, and Russian and Western woodworking companies. Why, you ask? Well, everyone has their own reasons.

Western wood companies for example, are suffering. Getting their raw material from legal and honest local communities, and paying 30 times more to their workers, they are unable to compete with the prices of Chinese producers.

Woodworking enterprises also have a list of complaints. Among these, that they simply don't have enough wood to fill their capacities. They can't compete with Chinese companies, or with big Russian pulp and paper facilities producing cheap pulp for the Chinese market.

And of course, Russian people are being abused. For one thing, they certainly are not able to make a living working for 70 euro. Very little Russian labor is required for logging anyway, as we have few sawmills or panel-factories. It seems that, once, the guys were all saying, "Selling to Chinese workers and harvesters is more profitable." Now the forests around Russian villages have become fields. The regional authorities are announcing that everything is going just fine. And it is – for them.

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THE TRUTH

In April 2006, Putin gave an assignment to the Russian Government aimed at effective use of Russian forest funds. This has resulted in a newly adopted Russian Forest Code which liberalizes the Russian wood market, opens it to western investors, and implements higher export tariffs – which brings more tax money to the Russian budget and encourages investment in the Russian wood industry. A new investment climate for the Russian wood industry has been created by local authorities and investors world-wide. And it has been created by the Russian government, as well as the international community, because the investment climate is a function of local authorities together with investors. And here we wish to come together with world wood industries – for our mutual benefit

NO EMOTIONS, JUST BUSINESS

Let's take a look at how it works, and what changes will be brought. We will focus on some key points of the Chinese wood industry, and try to look at it through the loop of Russian interests.

Let's consider some key figures and think of them from a Russian point of view.

Between 1997 and 2005, China's total forest product imports more than tripled in volume (roundwood equivalent) from 40 mln m³ to 134 mln m³, and more than doubled in value. Russia is the top supplier of China's wood imports, and occupies 1st place in timber products overall with 48.8%, logs with 68.2%, and lumber with 17.7%. It also has 3rd place in wood pulp with 12.9% and in plywood with 3.1%

Let's look at how the main points of Chinese imports of Russian wood will change in the next few years.

LOGS

Russian log imports have risen dramatically over the past years. Imports were increased by a factor of 21 between 1997 and 2005, from 0.95 to 20 mln m³. The following 4 log exporters – Malaysia, PNG, Myanmar, and Gabon hold a combined 18.5%. We should note, however, that they do not export softwood logs – the main Russian export product. The sawn timber made from this lumber is the

main product for the construction industry. The consumption drivers here are US, Japanese, European, and Chinese markets.

We think that during the next two years, the tempo of Russian log imports to China will remain the same, partly because International Paper should utilize their increasing saw log volumes. China's heavy dependence on Russia for its peeler logs should be the other driver for increasing log imports from Russia. During the period between 1994 and 2004, plywood production in China skyrocketed from 2.6 mln m³ to 21 mln m³. But we should note here that Russia will get more revenues from this log export growth now due to higher export tariffs – and this is good for us.

The new export tariffs should lead to a price growth for the above-mentioned products – sawn timber and plywood. But the tariffs will also increase Chinese import of softwood logs and sawn timber from Canada (the 2nd main producer of softwood lumber in the world), because Siberia and the Russian Far-East do not have the capacities to produce sawn timber in the required volumes.

But our hope is the Ust-Ilimsk and Lesosibirsk sawmills in Siberia. During the Soviet era, they produced about 3 mln m³ of sawn softwood lumber. It should be added that their sawn softwood is famous for its quality. Currently, their output is only about 1.4 mln m³ annually.

LUMBER

Russian lumber constitutes 17.7% of Chinese lumber imports, and the USA – 14.3%. Both will increase their share. In the next 2 years, the USA may gain the lead, because they have the capacities to increase production. But we would like to draw your attention to the Ust-Ilimsk and Lesosibirsk Sawmills. Lesosibirsk's name translates as Wood City of Siberia. This town was erected in the Soviet Union around 3 sawmills which produced 3 mln m³ of softwood timber for export. It is located at the heart of an Angarian Pine Forest in the Krasnoyarsk Region.

The sawmill gets roundwood through its port on the banks of the Enisey, and delivers products both by railway and by river. Big industrial plans are being dealt with now in the Krasnoyarsk region by its new governor. The whole system is based around finishing the frozen construction

of the Soviet hydropower stations on the banks of Siberian Rivers. There is no doubt that reconstruction of the Lesosibirsk sawmills should be the next step. And they will be good competition for US exporters.

The same goes for the Ust-Ilimsk Sawmill which was owned by Ilim Pulp (the new corporation's assets are under full-scale reorganization). As soon as International Paper gets 50% of OJSC the Ilim Group, which was set up using pulp and paper assets of Ilim Pulp Corporation, the new joint enterprise created as a result of the deal receives the lease title for the forest; the sawmill will remain without its own wood procurement.

This will enhance the further growth of pulp production at the newly built Russian facilities and its export to China. A 40% growth of Russian pulp export to China is expected by the year 2011.

WOOD PULP

The plans look realistic. After the mentioned new joint venture activates, they will have about 7.5 mln m³ of annual cutting in Russia. And by 2011, they will have about 12 mln m³. I don't believe the speculations about the possible building of new Chinese pulp and paper mills, because, in the last years, few new pulp and paper facilities have been made in China. And these facilities require a lot of wood. Plus, the consumption is growing at a high speed; the demand for paper and paperboard grew by an average of 9.6% per year between 1990 and 2003, and China is



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now the second largest producer of paper and paperboard in the world after the US with most of its production being for domestic consumption.

And the Chinese work force requires labor in China. This does not leave much of a chance that there are or will be new Chinese pulp and paper mills on Russian territory.

What is possible in the next ten years, is the building of a hardwood pulp production facility with a capacity not exceeding 500 tons annually in the Far-East or the Krasnoyarsk region. But I am not sure about that. I think that Russia will maintain 3rd position here, because Canada and Indonesia (number 1 and number 2 in wood pulp imports to China) have a lot of raw material for it. But with the expansion of International Paper, they could lose some part of the Chinese market.

And when we talk about Indonesia, we refer also to plywood.

PLYWOOD

As we have mentioned before, China is dependent on Russian peeler logs. This is why we could assume that, with the new tariffs, Russian plywood export should also grow. This refers mainly to Ilim Pulp's plywood facility in Bratsk, which is in the Irkutsk Region, and to Sveza, which is the main Russian plywood producer owned by the metallurgical giant Severstal. Severstal exports both steel and lumber to China. And it could use the opportunity to increase both flows. Metal and wood always look good. Alvar Aalto houses is a good example of this.

And now is the right moment to talk about sustainability.

METAL, WOOD, AND SUSTAINABILITY – THINGS ARE CHANGING

There is a lot of talk about it, and no need to repeat it.

Just a question; have you ever been to Siberia or the Far-East? Have you ever traveled in a jeep by the forest roads? First of all, it's a little bit frightening, because there are no people at all. And

if you meet them, basically there are two types: gold miners and loggers. There are thousands of kilometers of Taiga. How do you think sustainable logging can be managed here?

When it comes to the Ilim Group (International Paper), the question is clear. Their forests are mainly certified or finishing the process. This means that they could be more easily controlled. But what about the others?

First of all, we should understand how the system of timber trade between China and Russia works. And then one can think over the possibilities regarding how to control it.

An agreement existing between China and Russia, about no-visa tourist exchanges between the two countries, provides opportunities for Chinese "illegal tourists". About 60 percent of them don't return after 30 days of staying in Russia on the "no-visa tourist exchange agreement".

These people stay in Russia and form trading companies which purchase and resell Russian metal and wood to China. Many short-lived Chinese companies, vanishing after completing successful export operations without paying taxes, are created. Russian central and local budgets receive nothing from this trade.

The most interesting thing here is to see how regional authorities, together with the big companies, are trying to change this situation. In the Irkutsk region, the right to load logs on the railway now belongs only to big companies, who get the license to load roundwood from authorities through the mechanism of so-called wood terminals. This should cut off small Chinese traders from the possibility of exporting directly to China without paying taxes. And it will increase roundwood export in the hands of a few big companies.

The biggest are Ilim Group, Sibexportles, and companies affiliated with Abramovitch's Evrazholding. We can say that these three players (and in the immediate future, half of the Ilim Group will be owned by International Paper) are now the driving force of Russian log exports to China (and to Japan), and soon the world timber market will depend very much on them.

We should also mention here that Sibexportles and Abramovitch are not profiled investors, and I think that they will be looking to sell their

assets in Siberia and in the Far-East sooner or later. And these are about 4 mln m³ of roundwood annually.

BUT WHAT IS GOOD HERE FOR LOCAL RUSSIAN COMMUNITIES?

At this point, I am remembering the beginning of this story and wonder to myself, what is good in all this for local Russian communities in Siberia and the Far-East? Does anything change for them if three big companies increase log trade with China? They are still off-the-road.

But this is only the first step. Accumulation of log flow in the hands of big companies should lead to increased sustainability. Even if we forget that one of them is IP. And for western investors, it will be easier to deal with Evrazholding structures, whose main enterprises are well known in the world and traded on the stock-exchanges. So, the process is going in the right direction. And this should definitely lead to the creation of new wood enterprises, which will give jobs to Russian people. Russians simply don't want to be the hostages of low prices.

THE HOSTAGES OF LOW PRICES

Where do the low prices for wood products come from? From the skills of the company, of course. But some other things in the value chain could contribute as well.

The chip wood products made in China are sold in the whole world through big DIY chains. IKEA, for example, procures 20% of its global fiber supply in Russia, and 25% of its wood products are manufactured in China. Only about 5% of the Russian wood it uses in its

Chinese factories is certified.

Of course each company carries out its own inspection, but we can assume that one could easily not meet many IKEA inspectors in the woods of Siberia and the Far-East. And the process of inspecting the documents is not very thorough.

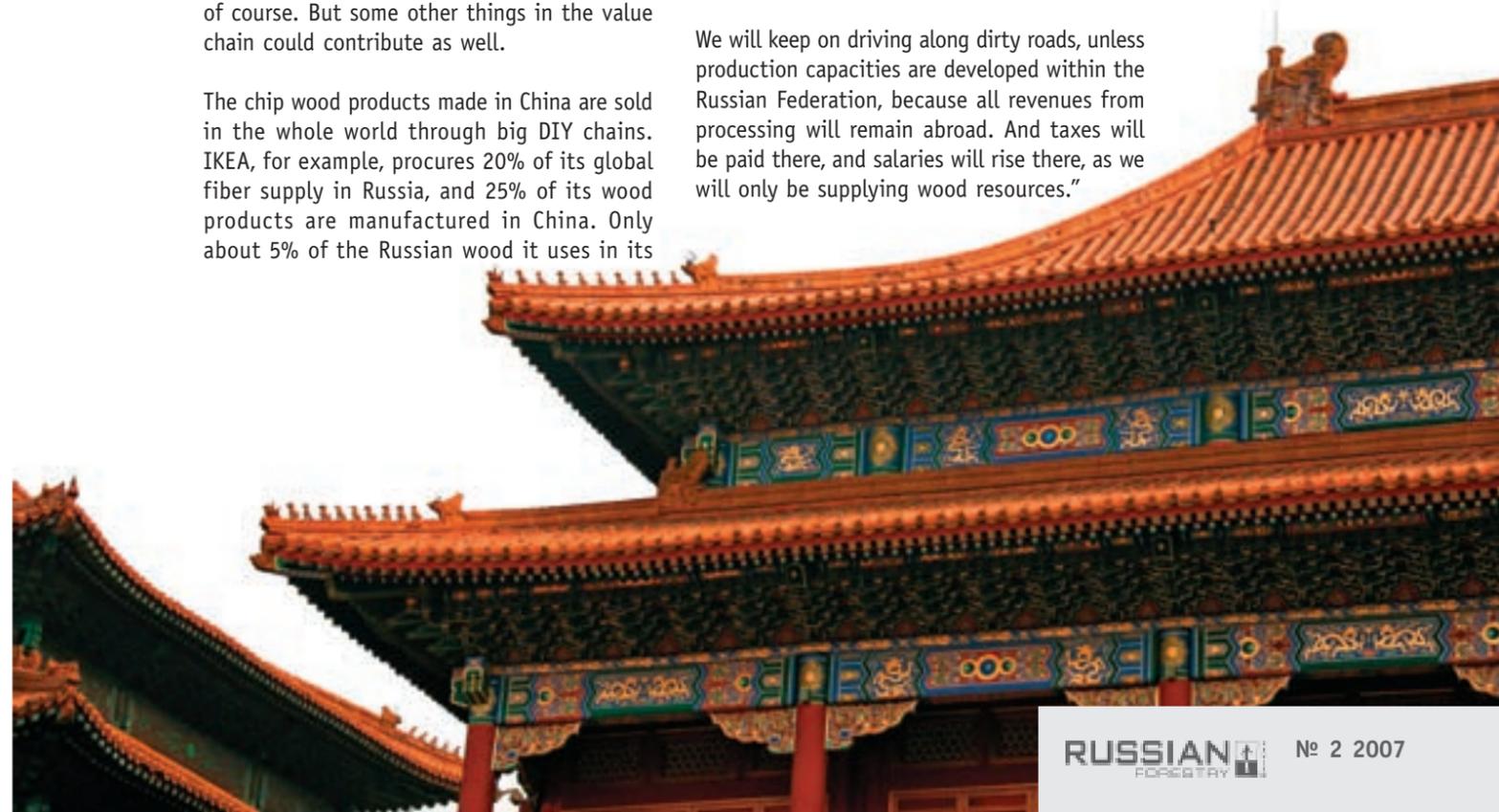
The same situation occurs with all major retailers who purchase wood products from China. The new Russian forest law and export taxes are very serious steps, and they are made not only for the Russian wood industry's benefit. They can stop the abuse upon the rights of the people who have been honestly cultivating and cutting forests with love for hundreds of years. And they can stop abuse upon the rights of consumers of logs provided by these people, as well as abuse of the rights of many honest people who live in Russia and other countries and work in the wood industry and other industries. The point is to find ways of cooperating through different political and industrial channels.

PUTIN'S THOUGHTS

It seems like a good idea to me to finish with the words of Vladimir Putin:

"Our global lead in terms of forest exports often implies blunt dissipation of national resources, resulting in the lost opportunities we would have by processing the wood domestically.

We will keep on driving along dirty roads, unless production capacities are developed within the Russian Federation, because all revenues from processing will remain abroad. And taxes will be paid there, and salaries will rise there, as we will only be supplying wood resources."



LARCH IN RUSSIA

INTRODUCTION

Larch (*Larix*) is the main wood species in Russia. It occupies nearly half of the coniferous forests. The main stocks of larch wood are in East Siberia and in the Far-East.

In the Middle Ages, larch wood was widely used in the construction of buildings, ships, bridges, etc. Wooden buildings and churches more than 300 years old can be found in Russia. Before 1862, in Arkhangelsk, 500 military ships were built of larch wood. Larch was widely used for many buildings and roads too.

Larch has some positive properties which make it possible to use as a structural material. This wood is characterized by very high mechanical properties, which are 30–60% higher than those of pine. Larch heartwood has a high decay resistance, due to its density and large natural resins content.

Despite its growing stocks, high mechanical properties, and decay resistance, the logging of larch does not exceed 5% of the total volume of logging and industrial use in Russia. One of the reasons for larch wood's limited industrial use is the difficulty connected with its treatment, which is a result of the wood's structure.

Larix sibirica Ldb and *Larix daurica* tursz are two larch wood species which are widely grown in Russia. Of the many positive properties they share, the main advantage is their natural decay resistance. Such high decay resistance and perfect mechanical properties make it possible to use this wood in different fields.

It's widely known that the European larch wood, *L. deciduas* mill, also has a high natural decay resistance. However, Siberian and Daurican larch still exceed European larch in this respect, thanks to those subspecies' greater density, as will be shown in this paper.

HISTORICAL DATA ABOUT LARCH WOOD'S DECAY RESISTANCE

P.Pallas (1741–1811), a Russian academician, was one of the first scientists to notice the perfect decay and fungus resistance of larch wood. After some traveling in Siberia, he came to the following conclusion, "Larch wood doesn't decay, and that is why it is used for dams, bridges, piles, pipes for water moving, mills and barrels".

Contemporary historical literature gives us many examples of buildings, and both hand-made and manufactured articles, which were made in the 17th and 18th centuries. These constructions remain intact despite very harsh conditions. Some examples are as follows: the wooden towers in Jakutsk and Ilimsk, which were built in the 17th and 18th centuries; the remains of the Mangaseisk defenses (dated 1601); a dam on the Iset river in Yekaterinburg, which worked 240 years; several different buildings in Perm, Solikamsk, Cherdyn, Verkhoturie, and in many other cities and towns; etc.

Archived data shows that larch wood was the main building material used by the Russian navy in the 18th and 19th centuries. Larch proved a better choice than oak for those conditions.

It is very difficult to find wood in archaeological excavations. Specialists pay close attention to every find. Some perfectly preserved larch wood articles and constructions of Pazyryk barrows have been found in Russia, in the Altai Republic (180 km from Teletskoe Lake). These articles belonged to Scythian tribes, who lived there in the first thousand years A.D.

GROWTH OF LARCH STOCK

The full stock of larch wood is more than 28 billion cubic meters. However, the distribution of larch forest in Russia is irregular, as shown in Table 1.

More than 95% of the total growing stock of larch is in Eastern Siberia and in the Far-East. There are more than 10 species of larch in Russia (*L. sibirica*, *L. decidua*, *L. dahurica*, *L. sucachevii*, *L. lubarskogo*, *L. primorskaja*, *L. olchinskaja*, and others). But the quantity of these subspecies of larch wood differs. *L. daurica* occupies about 86% of total Russian forests. Nearly 13% is *L. sibirica*. And only 1% is occupied by other subspecies.

STRUCTURE OF LARCH WOOD, AND ITS PHYSICAL AND MECHANICAL PROPERTIES

Larch trees can be 30–45 meters high and up to 1 meter in diameter. The average diameter of larch wood for industrial use is 30–40 cm. Some data about larch trees is given in table 2.

There are some specific characteristics of larch wood structure. It has a very thin layer of sapwood which is about 8–20 mm in total diameter. The width of the annual ring is 0.4–2.2 mm and depends on growing conditions and the age of the tree. The width of late wood can be from 0.07 to 0.76 mm, to 20–30% of the full width of the annual ring. The quantity of late wood can reach 39% for larch, 31% for silver fir (Siberian), and 27% for Siberian pine. This characteristic is the main reason for the mechanical properties of larch.

The main component of coniferous wood is its tracheids. Tracheids are more than 90% of the volume of the wood. The sizes of tracheids of some coniferous species of wood are shown in table 3.

There are big differences between early and late wood. As a result, the physical and mechanical properties of early and late wood differ too (table 4).

The physical and mechanical properties of wood depend on its age too. The correlation between density and age is the following:

Density continues to increase until the tree reaches the age of 70–80 years.

After the age of 70–80 years, density begins to decrease. The average data is (*L. daurica*):

Average data presented in table 6 shows that the main mechanical properties of larch wood are 30–60% higher than those of pine wood.

The data shows that Siberian Larch, which grows in West Siberia, has the most durability. The influence of the growth's conditions on the properties of the wood is noted by A. I. Terletsky (table 7).

RESULTS OF INVESTIGATIONS OF LARCH

Investigations of natural larch wood decay resistance were carried out during the 1960s by scientists of the USSR Academy of Science (Institute of Forest and Wood), and the Siberian Technological Institute. Telegraph poles were used for this research work. These investigations showed that the average duration of natural larch wood pillars is 19–23 years in the Abakan region, and 24 years in the Krasnojarsk region. The first sign of dilapidation was visible after 4 years of exploitation. During 4–15 years of work nearly 10–20% of the telegraph poles were destroyed. After 25 years of exploitation, nearly 50% of the poles were still intact. It was noted that fungus attacks the sap of the wood. High heartwood resistance is what explains the wood's chemical structure and very low penetration ability for liquid and gas. As a result, the investigations concluded that wood resistance is dependant on the different types of soil where this wood is located.

Table 1

Larch Stock Growth

Region	Forest Percentage	Stock Growth Percentage	Average growing stock, m ³ per ha
Vologda, Arkhangelsk, Komi, and Central Region	0.16%	0.2%	106
Ural	0.04%	0.05%	159
Western Siberia	1.9%	2.15%	131
Eastern Siberia	78.5%	77.0%	102
Far-East	19.4%	20.6%	110

Table 2
Relative Volumes of Different Parts of Tree

Wood species	Volume of different parts of tree,%		
	trunk	branches	roots
Larch spp	77-82	6-8	12-15
Pine spp	65-77	8-10	15-25
Birch spp	78-90	5-10	5-12
Beech spp	55-70	5-10	20-25

Table 3
Tracheid Sizes in Some Coniferous Species of Wood

Species of wood	The sizes of the cross section of tracheids, mkm						The length of the tracheids, mm
	radial		tangential		The thickness of the wall		
	early wood	late wood	early wood	late wood	early wood	late wood	
Larch ¹ spp	52,4	21,8	32,0	27,4	3,3	6,6	2,6
Pine ² spp	40,0	20,0			2,0	5,5	2,8
Pine ³ spp	40,9	19,7	29,4	32,5	1,5	5,9	
Spruce ⁴ spp	35,0	13,0			2,2	3,9	
Spruce ⁵ spp	45,0	22,0			3,0	5,0	

*Note: data presented by: ¹ Vikhrov V. E.; ² Perelygin L. M.; ³ Moskaleva V. E.; ⁴ Gartman A. N.; ⁵ Melekhova T. A.

Table 4
Physical and Mechanical Properties of Larch Wood's Annual Ring

Name of the property	Average meaning of:	
	early wood	late wood
Density, kg/m ³		
at: moisture content = 0	362(383*)	863
moisture content A max	1030	1090
Max moisture content%	206	80
Shrinkage,%		
full	13.43	22,8
tangential	7.87	13,9
radial	1.57	7,1
Quantity of pores,%	66(75.3*)	21(46,7*)
Tensile strength along of grain, MPa	44.2*	151,0*
Bending strength, MPa		
at: moisture content = 9%	48.3*	259,0*
moisture content >=30%	25.8*	104,7*

*Note: data presented by Vikhrov V. E.

Table 5
Relationship Between Width of Annual Ring and Density of Larch Wood (*Larix daurica*) at a Moisture Content of 12%

Width of annual ring, mm	0.4-0.5	0.5-0.6	0.6-0.7	0.8-0.9	0.9-1.0	1.1-1.2	1.3-1.4
Density, kg/m ³	772	750	697	727	760	691	710
Width of annual ring, mm	1.5-1.6	1.6-1.7	1.7-1.8	1.8-1.9	1.9-2.0	2.0-2.1	2.1-2.2
Density, kg/m ³	570	576	598	600	658	626	526

More than a few thousand pillars were observed during these investigations, thus accounting for highly accurate data.

Samples for the tests were made from parts of a 230-year-old larch wood building in the city of Krasnojarsk. The results of the tests showed that the durability of this wood is 15-30% less when compared with the average data of larch wood in this region.

LABORATORY INVESTIGATIONS OF LARCH WOOD'S DECAY RESISTANCE

The resistance of natural larch wood against decay and fungus attack was investigated in different laboratories of the former USSR. The results, which were observed by L. A. Petrenko, are very important.

Samples measuring 20x20x10 mm were tested. The experiments were carried out over a period of 4 months, at temperatures of 18-20°C and relative air humidity of 60-70%. The findings of this research are shown in table 8.

LARCH USE

Despite great growing stock, high mechanical properties and decay resistance, the logging of larch does not exceed 5% of the total volume of logging and industrial use in Russia. In the last 5 years, wood logging in Russia was reduced from 380 million m³ to 150 million m³ per year. From these 150 million m³, larch accounts for nearly 7 million m³. Most of this larch wood is exported, especially to Japan.

One of the reasons for the limited industrial use of larch wood is the difficulty connected with its treatment which results from the wood's structure. Some properties have negative effects on treatment. The main ones are as follows:

- high density, and the large difference between sapwood and heartwood density and the density of late and early wood;
- large differences between the physical and mechanical properties of the heart wood and sapwood, and the early and late wood;
- high content of natural resins and gum (about 22.6% in *L. daurica*);
- lowest vapour and gas penetrating ability.

Some results of these properties are:

- fast obstruction (pitching) of tools. During sawing, for example, resins and gum get stuck between the teeth of the saw and this makes sawing impossible;
- big internal stress and deformation during drying and pressing, which results in contraction cracks;
- low surface activity in finishing, resulting in glue bonds which are weaker than those of other wood species.

These are the reasons why larch wood requires special methods of treatment during sawing, rotary cutting, drying, gluing, and finishing.

Lumber production is described in detail, and the schedule of plywood manufacture is given.

Laminated veneer lumber (LVL) is one of the most progressive ways of structural lumber production, because the gluing makes it possible to get material of any length, width, and thickness.

Besides the fact that the strength of LVL is greater than that of lumber (sawn beam and sawn board), due to the even the spreading of natural defects – especially knots – laminated veneer lumber has fewer anisotropic properties than usual as a result of its structure.

Experimental work to produce LVL has been carried out on a large scale in the St. Petersburg Forest Technical Academy and the Bratsk plywood factory.

The main mechanical properties of the laminated veneer lumber from larch veneer are higher than those of pine veneer. Larch wood LVL has perfect mechanical properties (1.2-1.6 times higher than those of structural lumber), and it has less anisotropic properties due to the fact that some internal sheets of veneer have a perpendicular direction of grain in relation to those of outside sheets.

Anatoly CHUBINSKY
Maxim CHUBINSKY

St. Petersburg Forest Technical Academy

Table 5
The density depends on the width of annual ring

age, year	density, kg/m ³
20	490
80	736

Table 6
Mechanical Properties of Larch Wood

Wood species	Density, kg/m ³	Compression strength along grain, MPa	Bending strength, MPa	Tensile strength along grain, MPa	Shear strength, MPa	Hardness, MPa	Modulus of elasticity, GPa
Larch							
(<i>Larix</i> spp)	640	56.7	98.5	119.5	8.7	24.9	13.8
(<i>Larix daurica</i>) ¹	650	57.3	106.2		7.7		13.0
(<i>Larix daurica</i>) ²	620	52.2	93.2		9.1	24.9	12.9
(<i>Larix sibirica</i>) ³	660	61.5	97.8	120.5	8.5		14.9
(<i>Larix sibirica</i>) ⁴	640	55.3	96.4	118.6	9.3		14.6
Spruce							
(<i>Picea</i> spp)	450	39.0	70.3	100.3	6.3	16.5	9.3
Silver fir							
(<i>Abies</i> spp)	380	34.4	60.3	65.6	5.8	15.5	8.7
Pine							
(<i>Pinus</i> spp)	470	39.6	71.8	84.1	6.2		11.9

Notes: Region of growing: ¹ Primorsky; ² Yakutia; ³ West Siberia; ⁴ East Siberia. Modules of shear of larch wood are 0.8-0.9 GPa.

Table 7
Influence of Growth's Conditions on Physical and Mechanical Properties of Larch

Growing region	Density, kg/m ³	Bending strength, MPa	Modulus of elasticity, GPa
Leningrad region	584	82.0	7.64
Komi Republic	563	104.5	10.79
East Siberia (Yakutia)	685	132.3	10.31

Table 8
Larch Wood's Resistance to Fungal Attack

Larch wood resistance to attack of fungus. Wood	Fungus	Loss of dry weight of wooden samples,%
Larch, sap of wood	<i>Coniophora cerebella</i> Pers. <i>Merulius lacrymans</i> Fr.	32.15 14.20
Larch, heartwood	<i>Coniophora cerebella</i> Pers. <i>Merulius lacrymans</i> Fr.	23.30 6.0
Pine, sap of wood	<i>Coniophora cerebella</i> Pers. <i>Merulius lacrymans</i> Fr.	63.80 18.50



BASIC PRODUCERS IN RUSSIA

Saw-timber (Softwood, Hardwood)

Tairiku Trading Co. Ltd. – 550,000 m³ per year
 Group of Solombalsk Timber Mill – 500,000 m³ per year
 OJSC “Novoyeniseysk Timber Mill” – 475,000 m³ per year
 “Ilim Group” – 460,000 m³ per year
 OJSC “Lesosibirskiy Woodworking Enterprise №1” – 450,000 m³ per year
 “Titan” group – 380,000 m³ per year
 OJSC “NLK” – 300,000 m³ per year
 LLC “Tekhtransstroy” – 300,000 m³ per year
 UPM – 300,000 m³ per year
 LLC “Saw Mill Continental Management” – 290,000 m³ per year

Plywood

“Sveza” Holding Company – 370,000 m³ per year
 “United Panel Group” – 265,000 m³ per year
 “Ilim Group” – 200,000 m³ per year
 LLC “Syktyvkar Plywood Mill” – 140,000 m³ per year
 IPC Group – 120,000 m³ per year
 OJSC “Fankom” – 100,000 m³ per year
 UPM – 95,000 m³ per year
 Nella Investments – 80,000 m³ per year
 OJSC “Arkhangelsk Plywood Mill” – 75,000 m³ per year
 OJSC “Plywood mill Krasniy Yakor” – 75,000 m³ per year

Particleboard

OJSC “Experimantal Particleboard Mill” – 380,000 m³ per year
 “United Panel Group” – 375,000 m³ per year
 OJSC “Plitprom” – 350,000 m³ per year
 Egger – 250,000 m³ per year
 LLC “Syktyvkar Plywood Mill” – 190,000 m³ per year
 OJSC “TomsK Particleboard Mill” – 190,000 m³ per year
 OJSC “Furniture Plant Shatura” – 175,000 m³ per year
 LLC “Sheksninskiy Particleboard Mill” – 170,000 m³ per year
 Eastbridge Capital Partners – 160,000 m³ per year
 Swiss Krono – 150,000 m³ per year

MDF

Swiss Krono – 430,000 m³ per year
 Kronospan Group – 400,000 m³ per year
 United Panel Group – 120,000 m³ per year
 Promstroibank, SPb – 100,000 m³ per year
 OJSC “Plitspichprom” – 80,000 m³ per year
 OJSC “Novovyatskiy Ski Industrial Center” – 75,000 m³ per year
 OJSC “Saw Mill “Tyndales” – 60,000 m³ per year
 “YUG” Group – 50,000 m³ per year
 LLC “Sheksninskiy Particleboard Mill” – 50,000 m³ per year

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Oleg PRUDNIKOV
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Elena ROSCHINA
Chief Editor
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LesPromInform, an industrial magazine for those associated with the TIC, is our core product, and we have been publishing it for five years. Over the years, **LPI** has become one of the most influential journals in the country, having won the recognition of specialists and experts at various levels: production supervisors, managers, TIC company owners, researchers, lawyers, financiers, officials, legislators, etc.



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15–18 January	Construction and architecture	Krasnoyarsk	VK Krasnoyarskaya yarmarka / Ostrov Otdiha	(+7-3912) 36-24-25, 36-24-50 golovchenko_g@krasfair.ru
19–21 March	Ecology of a big city. Managing of waste products: technologies and equipment	St.-Petersburg	OJSC Lenexpo/ VK Lenexpo	(+7-812) 321-27-18, 321-26-39 ecology@mail.lenexpo.ru, www.ecology.lenexpo.ru
20–22 March	Sibles. Woodworking. Furniture technology	Novosibirsk	Ltd. Sibirskaia Yarmarka	(+7-383) 210-6290, 225-5151 korus@sibfair.ru, www.sibfair.ru
20–23 March	Wooden building/ HOLZHAUS	Moscow	Exhibition holding MVK/ MVC "Krokus Expo" Pavillion 1, Hall 3	(+7-495) 268-9511, 268-9914 rta@mvk.ru, www.holzhaus.ru
24–26 March	Forum-exhibition GOSZAKAZ 2008	Moscow	Ministry of Economic Development and Trade RF, Interregional public organization "Moscow association of entrepreneurs" / MVC Krokus Expo	(+7-495) 258-0026, 959-0698 goszakaz@inconnect.ru, www.goszakaz.inconnect.ru
26–28 March	Lesprom	Syktivkar	Ltd. KomiEXPO/ International Trade Center	(+7-8212) 206-121, 21-58-93 komiexpo@tppkomi.ru, www.tppkomi.ru
26-28 March	Wood and woodworking	Arkhangelsk	Ltd. VC Pomorskaya Yarmarka/ Sport Palace "Profsoyuzov"	(+7-8182) 20-1031, 65-2522 info@pomfair.ru, www.pomfair.ru
27 – 30 March	UMIDS - Southern furniture and woodworking salon	Krasnodar	Ltd. KrasnodarEXPO	(+7-861) 210-9892, 210-9893 baza@krasnodarexpo.ru, www.krasnodarexpo.ru
1–3 April	Style. Furniture. Kitchen. Urallesdrevmash	Yekaterinburg	VO Uralskie vistavki - 2000/ International Trade Center "Yekaterinburg"	(+7-343) 370-3374, 370-3375 vystavka@r66.ru, www.uv2000.ru
1–4 April	DREMA 2008	Poznan, Poland	Mezduнародnie Poznanskiye Yarmarki	(+48-61) 869-2000, 866-5827 info@mtp.pl, www.drema.pl
8–11 April	Furniture. Interior. Woodworking	Ufa	KIC Ligas	(+7-3472) 281-377, 523-988 ligas@ufanet.ru, www.ligas-expo.ru
April	Lespromindustria 2008	Nizhniy Novgorod	CJSC Nizhegorodskaya yarmarka	(+7-8312) 77-5880, 77-5589 yarmarka@yarmarka.ru, www.yarmarka.ru
10–13 April	Wooden house	Moscow	Ltd. World Expo Group/ Expocenter na Krasnoy Presene	(+7-909) 650-6255, 650-6257 weg@weg.ru, www.weg.ru
17–20 April	TEKHNO DREV the Far East 2008	Khabarovsk	OJSC Khabarovsk's International Fair, VO RESTEC/ Athletic riding-hall of the stadium by V.I. Lenin	(+7-4212) 34-61-29, 34-47-36, director@khabexpo.ru, www.KhabExpo.ru
April (to be precised)	Timber sector	Yekaterinburg	Ural CIC/ VC InExpo	(+7-343) 353-5412, 353-5861 expo@ucci.ur.ru, www.ucci.ur.ru
April (to be precised)	Karelian forest. Furniture. Woodworking	Petrozavodsk	VA Euroforum	(+7-8142) 76-8300, 76-8796 euroforum@karelia.ru, gnetov@onego.ru www.euroforum.karelia.ru
13–17 May	Euroexpofurniture/ EEM'2008 Interkomplekt'2008	Moscow	MVK/ MVC Krokus Expo	(+7-495) 268-1407, 105-3413. avn@mvk.ru, www.eem.ru
20–23 May	Woodworking 2008	Lvov, Ukraine	SC Gal-EXPO/ Sport Palace "Ukraine"	(+380-32) 297-0628, 297-1369 exhib@galexpo.lviv.ua, www.galexpo.lviv.ua
20–23 May	Siberian building week	Omsk	International exhibition center Intersib	(+7-3812) 22-01-59, 25-25-20
27-29 May	World Bioenergy 2008	Jongkoping, Sweden	Elmia AB	(+46) 36 15 21 93 per.jonsson@elmia.se, www.elmia.se/skogselmia
27–30 May	Biotopexpo	St.-Petersburg	VO Sibel/ Peterburgskiy SKK	(+7-812) 324-6416, 596-38-03 sivel@sivel.spb.ru, www.sivel.spb.ru
27-31 May	XYLEXPO/ Sasmil	Milan, Italy	Fiera Milano, Eumabois/ Fiear Milano	(+39 02) 89210200, 8259009 info@xylexpo.com, www.xylexpo.com
29 May – 1 June (to be precised)	Lesderevtekh 2008	Minsk, Byelorussia	NVC Belexpo	(+375-17) 234-0131, 234-2678 kirya@belexpo.by, www.belexpo.by
3–5 June	Tissue Russia 2008	St.-Petersburg	VO Sivel/ VC SZRF	(+7-812) 324-6416, 596-3781 sivel@sivel.spb.ru, www.sivel.spb.ru
4–6 June	Tcaricinskiy furniture saloon	Volgograd	VC Tcarisinskaya yarmarka	(+7-8442) 23-3377, 26-5034 zarexpo@avtfg.ru, www.zarexpo.ru
4-7 June	KWF Tagung	Shmallenberg, Germany	KWF	(+49) 6078-7850 tagung@kwf-online.de, www.kwf-online.de
17-20 June	Interles	St.-Petersburg	VO RESTEC/ Leningrad Region, 64 km of "Scandinavia" line (E-18)	(+7-812) 320-9684, 320-9694 wood@restec.ru, www.restec.ru/interles
17–21 June	CTT/ Construction Technique and Technologies 2008	Moscow	MVC Krokus Expo	(+7-495) 961-2262, 203-4100 info@mediaglobe.ru, www.ctt-expo.ru

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10-12 June	Woodworking: Instruments. Plants. Equipment	Yekaterinburg	RTE-Group/ VC KOSK "Russia"	(+7-495) 101-4407, 101 44 17 wood@rte-expo.ru, www.uralexpotool.ru
17-20 June	TEKHODREV Ural. Povolzhye 2008	Perm	VC Permskaya yarmarka and VO RESTEC/ VC Permskaya yarmarka	(+7-812) 320-9684, 320-9694 wood@restec.ru, www.restec.ru/lpkexpo-perm (+7-342) 262-5833, 262-5847 fair@fair.perm.ru, www.fair.perm.ru
June (to be precised)	Forest. Woodworking	Tomsk	OJSC Tomskiy International Business center "TEKHOPARK"	(+7-3822) 41-9470, 41-9768 fair@t-park.ru, www.t-park.ru
27-30 August	Tra&Teknik/ Elmia Timber	Geteborg, Sweedn	Elmia AB/ Svenska Massan	(+46-36) 15-20-00, 16-46-92 www.trateknik.info
28-30 August	FinnMETKO – fair of the forestry equipment	Helsinki, Finland	FinnMetko Oy	(+358 9) 566 0010, 563 0329 info@finnmetko.fi, www.finnmetko.fi
28-31 August	Holzmesse	Klagenfurt, Austria	Klagenfurter Messe GmbH/ Messe Gelände	(+43 463) 568 000, 568 0029 info@kaerntnermessen.at, www.holzmesse.info
1- 4 September	Lesdrevmash 2008	Moscow	The Central Exhibition Center "Expocentr", pavilions 2 and 8, and open air	(+7 495) 255-37-94 les@expocentr.ru www.lesdrevmash-expo.ru, www.expocentr.ru
2-5 September	Siblesopolzovanie. Woodworking	Irkutsk	OJSC SibExpocenter	(+7-3952) 35-3033, 35-4347 reklama@sibexpo.ru, www.sibexpo.ru
9-12 September	TEKHODREV Siberia 2008	Krasnoyarsk	VK Krasnoyarsk Fair, VO RESTEC/ International exhibition-business center "Siberia"	(+7-3912) 36-22-00 zarubin@krasfair.ru, www.krasfair.ru
23-26 September	Woodworking	Kazan	VC Kazanskaya yarmarka	(+7-843) 570-51-11, 570-51-07 vico@tbit.ru, www.expokazan.ru
23-27 September	Primus: Woodworking industry	Kiew, Ukraine	BK Primus Ukraine	(+38-044) 537-6999, 537-6996 info@theprimus.com, www.theprimus.com
24-27 September	TEKHODREV South	Rostov-na- Donu	VC VertolExpo, VO RESTEC/ Pavillions of VC "VertolExpo"	(+7-863) 292-43-20, 292-43-21 ugmebel@vertolexpo.ru, www.vertolexpo.ru
September (to be precised)	Woodworking 2008	Minsk, Byelorussia	JSC Minskexpo/ Football Hall	(+375-17) 226-9193, 226-9192 derevo@minskexpo.com, www.minskexpo.com
7-10 October	X International Forestry Forum	St.-Petersburg	Ltd. RESTEC LESPROM, Ltd. Lesinformconsult/ Tavricheskiy Palace, Hotel "Pribaltiyskaja", VK Lenexpo in Gavan	(+7-812) 320-80-96 interior@restec.ru
7-10 October	TEKHODREV North-West 2008. Primary woodworking. Wooden construction. Transles. Regions of Russia. Investment potential of TIC. IFEP tm	St.-Petersburg	VO RESTEC/ VK Lenexpo in Gavan	(+7-812) 320-96-84, 320-96-94 tekhnodrev@restec.ru, www.restec.ru/lpkexpo, www.ipptf.com
October (to be precised)	Woodworking	Luhti, Finland	Ltd. Lahti Fair/ Lahti Fair Centre	(+358) 3-525-820 helpdesk@ lahdenmessut.fi, www.lahdenmessut.fi
October (to be precised)	12-я yearly conference of the Adam Smith's Institute "Pulp-and-Paper Industry of Russia and CIS"	Wena, Austria	Adam Smith's Institute/ Penta Renaissance Hotel	(+44 20) 7490 3774, 7505 0079 www.russian-paper.com
October (to be precised)	Bioenergy-2008	Moscow	VVC	(+7 495) 748-37-59 bioenergetica@mail.ru, www.apkvvc.ru
11-14 November	Pap-For Russia 2008	St.-Petersburg	OJSC Lenexpo/ VK Lenexpo	(+7 812) 321-26-41, 3231-26-34 e-expo@mail.lenexpo.ru, www.lenexpo.ru
6 - 9 November	Wooden building/ HOLZHAUS	Moscow	MVK/ MVC Krokus Expo	(+7-495) 268-9511, 268-9914 rta@mvk.ru, www.holzhaus.ru
November (to be precised)	ZOW 2008	Moscow	VO RESTEC/ Expocenter na Krasnoy Presne	(+7-812) 320-80-96, 303-88-65 www.zow.ru, development@restec.ru
December (to be precised)	Lestekhprodukcija/ Woodex 2008	Moscow	MVK/ MVC Krokus Expo	(+7-495) 105-3413, 268-1407 v_v@mvk.ru, www.woodexpo.ru
December (to be precised)	Russian Forest 2008	Vologda	VC Russkiy Dom	(+7-8172) 72-9297, 75-7709 rusdom@vologda.ru, www.rusdom.region35.ru



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- International Paper – Ilim Group briefing with top managers
- Panel discussion – The future market shape of the forestry industry
- Spotlight on new entrants to the market
- Focus on key growth segments
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