

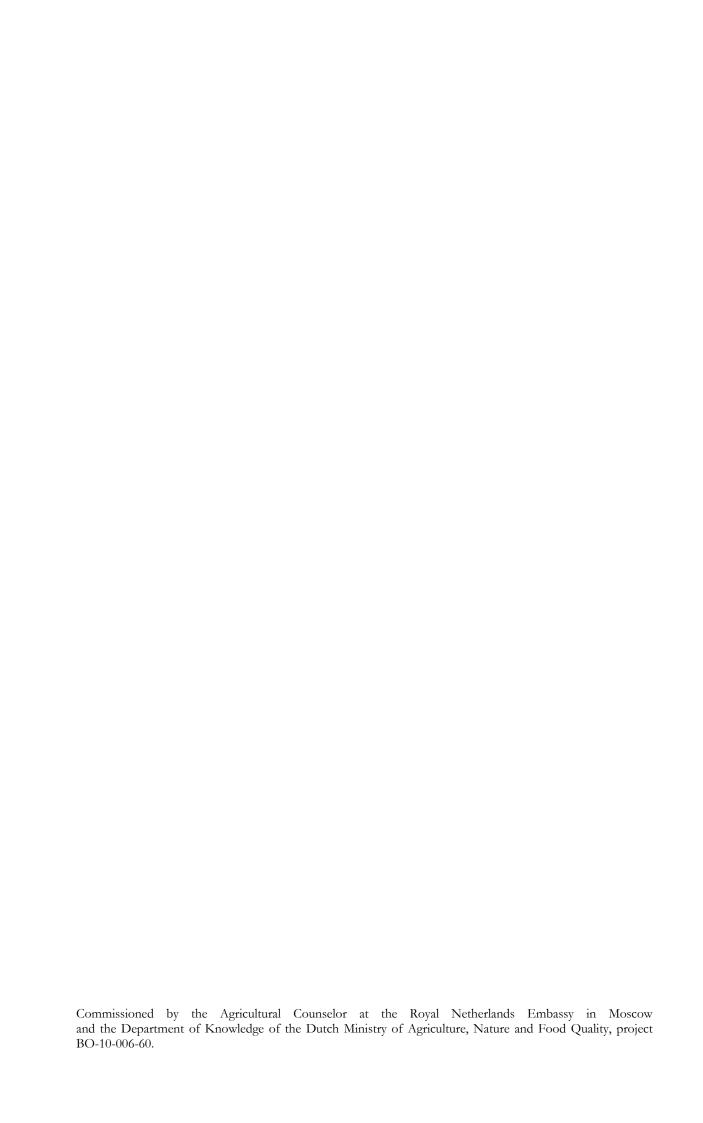
Sustainability of the wood chains between the Russian Federation and the Netherlands

Eric Arets Peter Schütz Bas Pedroli



Alterra-rapport 1809, ISSN 1566-7197

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Alterra, Wageningen, 2009

ABSTRACT

Arets, E.J.M.M., P. Schütz, G.B.M. Pedroli. 2008. Sustainability of the wood chains between the Russian Federation and the Netherlands. Wageningen, Alterra, Alterra-rapport 1809. 40 blz.; 4 figs.; 6 tables.; 27 refs.

In this report an overview of sustainability issues in Russian forestry is given, focussing on the European part of Russia and trade with the Netherlands. The present situation and developments in Russian forestry are described, taking into account the new Forest Code and increasing export tax on round wood. Trade of wood products between the Russian Federation and the Netherlands is quantified and put into an international perspective. Further sustainability issues, both from a Russian and Dutch perspective of the wood chain are assessed, including forest certification, illegal logging and stricter Dutch procurement regulations. It contains both policy recommendations and suggestions for further research.

Keywords: ENA-Fleg, export tax, forest certification, illegal logging, the Netherlands, Russian Federation, sustainable wood production, wood chains, wood trade.

ISSN 1566-7197

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Summary

Sustainability assessment of the wood chain between Russia and The Netherlands is a complex matter. Very few completely traceable wood chains between the two countries exist at this moment. The wood trade is a fairly state independent activity, largely based on personal trust and reliability of commercial partners. The sustainability of the extensive Russian forest sector is at an early stage of its development, and legal provisions have not yet stabilised. The new Forest Code – in force since 2007 – which introduced rather unfocused decentralisation and sometimes multi-interpretable definitions, has not yet proven to significantly enhance sustainability.

Although efforts are being undertaken in several regions in European Russia to develop sustainable forest management practices, in general forestry in Russia is currently characterised by large logging losses and opportunist management, often lacking adequate control and monitoring. A strong support of certification of forestry activities and wood production, and adoption of the ENA-Fleg principles to combat illegal logging – both seriously taken up by Russian governmental authorities – would certainly enhance the development of sustainable wood chains.

Since The Netherlands are a small wood trade partner of the Russian Federation (accounting for less than 0.7% of total Russian wood exports), it would be good to concentrate policy efforts and bilateral cooperation on those regions in Russia with the best opportunities to supply the requested certified wood products for the Dutch demand. It is recommended to institutionalise contacts to provide better guarantees for reliable trade lines, and to stimulate cooperation in capacity building.

Improving the knowledge in managing secondary forest – the main source of wood from European Russia – will enhance optimal conditions for re-growth and for biodiversity in the same time. Also non-timber products like game, mushrooms and berries may play an important role in the sustainable management of secondary forests, improving rural development perspectives as well.

Apart from the import of certified timber products from Russia, The Netherlands could also enhance a sustainable wood chain by investing in processing added value wood products, like pellets for bio-fuel. This might considerably reduce the large amount of unused waste products from the forest sector in Russia, offering Dutch companies new investment opportunities.

1 Introduction

This study has been undertaken at the request of the Agricultural Counsel of the Netherlands in the Russia Federation, Mr. Marinus Overheul. Reason for the request is based upon two policy lines of the Ministry of Agriculture, Nature and Food Quality in the Netherlands (LNV):

- 1. Sustainable trade chains in general.
- 2. Forests are part of the co-operation in the field of nature between the Russian Federation and the Netherlands.

Combination of these two has led to the request to give a first outline of the amount of sustainably produced timber from Russia to the Netherlands compared with the amount of non sustainably produced timber. Next to that the request was to give an overview of the players in this field, namely policy makers at government level, traders, NGOs, etc.

1.1 Starting question

The Netherlands and the EU are important importers of Russian wood. To support a bilateral policy dialogue on sustainable wood chains, better understanding is needed of the sustainability of the wood-chain for wood that is exported to the Netherlands. Questions that will be addressed are: What is the long-term impact of current logging practices and harvest intensities on future wood production and biodiversity? What are the potential effects of the recent Russian export tax on timber logs and legality issues (i.e. the ENA-Fleg process, stricter environmental requirements for procurement of timber for public use)?

1.2 Boundary conditions

The study is limited to European Russia. Social indicators of sustainability are beyond the scope of this study.

1.3 Objectives

Goal

Contribute to the policy dialogue on sustainable timber value chains between the Netherlands and the Russian Federation.

Purpose

Give an overview of sustainability issues in Russian forestry, focusing on the European part of Russia, leading to concrete policy recommendations.

1.4 Methodology

This study was carried out mainly as a desk study, incorporating various data sources and literature references. All sources of information are duly acknowledged, and a list of references is included.

Besides the desk study, interviews were held with key informants both in the Netherlands and in Russia. These informants are included in Appendix 1.



2 Present situation and developments in Russian forestry

2.1 Forest management and wood production in the Russian Federation

The Russian Federation has a total forest area of 8.3 million km² (FAO, 2006), which covers approximately 47% of its total land area and is the largest forest area for a single country world wide. In 2005, 37% was reported to be primary forest, 61% modified natural, 1.3% productive plantation and only 0.7% was productive plantation (FAO, 2006). In 2005, the growing stock on the total forest area was 80,479 million m³ (31% *Larch* sp., 20.1% *Pinus* sp., 14.4% *Betula* sp. 13.4% *Picea* sp. 10.5% *Pinus sibirica*) of which roughly half is considered commercial (FAO, 2005). The total forest area is in public ownership.

As a result of the enormous forest area, which largely is in remote and inaccessible areas, the annual removals in the Russian Federation constitute only 16% of the annual growth (compared to for instance 60% in Europe and 80% in North America) (UNECE/FAO, 2008). The total industrial round wood production in the Russian Federation increased from 73 million cubic meters in 1996 to 144.6 million cubic meters in 2006, which corresponded to 4.92% and 8.68% of the global production of industrial round wood (Table 1).

Table 1.Industrial round wood production in the Russian Federation in cubic meters, and as percentage of total round wood (RW) production (industrial round wood + fire wood) in the Russian Federation and as percentage of the global industrial round wood production. Data source: FAOstat (FAO, 2008)

	Industrial round	wood production (m ³)		% of total RW	% of global IRW
Year	Coniferous	Non-coniferous	Total	production	production
1996	46,139,000	26,866,000	73,005,000	75.41%	4.92%
1997	62,842,000	25,532,000	88,374,000	65.63%	5.78%
1998	57,700,000	19,700,000	77,400,000	81.47%	5.18%
1999	68,800,000	25,800,000	94,600,000	65.88%	6.11%
2000	76,100,000	29,700,000	105,800,000	66.92%	6.62%
2001	80,600,000	37,200,000	117,800,000	71.52%	7.74%
2002	81,200,000	37,400,000	118,600,000	71.88%	7.62%
2003	91,894,000	34,706,000	126,600,000	72.76%	7.91%
2004	101,000,000	29,600,000	130,600,000	73.21%	7.89%
2005	103,000,000	35,000,000	138,000,000	74.59%	8.08%
2006	107,800,000	36,800,000	144,600,000	75.87%	8.68%

Generally in Russia industrial round wood is produced from a final (or principal) cut (clear felling) of mature and over mature stands or from an intermediate cut, mainly thinnings but also other fellings like sanitary and reconstruction fellings (Gerasimov and Karjalainen, 2006, UNECE/FAO, 2001). The final fellings represent 85% to 90% of the total wood production from forests (Pisarenko et al., 2001,

UNECE/FAO, 2001). The category 'wood from other fellings' in these two sources refer likely to non-forest areas. Although the Russian Federation has a large area of productive plantation forests (9.2 million ha in 1990 – 11.9 million ha in 2005), this is only 1.3% of the total productive forest area of the Russian Federation.

To calculate felled and produced volumes of round wood per hectare of forest we assume that only mature forests are harvested and that the total growing stock volume is felled (156 m³ over bark (o.b.) for coniferous and 152 m³ o.b. for broadleaved forests (Table 2, Pisarenko et al., 2001). To calculate the average wood volume under bark (u.b) produced per hectare, the felled volume should be corrected using a conversion factor that takes into account bark percentage and harvesting losses.

The main timber losses in Russian forestry occur as a result of improper felling and because trees that are already cut are left behind on felling sites when areas become inaccessible after the soil thaws in spring. Reported losses are between 15% and 30%, but experts (Nabuurs, Pussinen, personal communication) consider 30% to be a low estimate of actual losses. Pisarenko et al (2001) reported a bark percentage of trees 15% for both softwoods and hardwoods. The conversion factor to calculate the volume that is felled (m³ o.b.) for each cubic meter (u.b.) produced then is 1.45, which is similar to the value reported in the European Forest Sector Outlook Study 2005 (UNECE/FAO, 2005). In the future, the losses as a result of spring thaw will likely increase with increasing global temperatures (UNECE/FAO, 2008).

Table 2. Growing stock volumes in cubic metres over bark (o.b.) per hectare in mature and over mature stands, based on Pisarenko et al., 2001 and calculated produced volumes under bark (u.b.). The combined figure is based on shares of coniferous (70%) and broadleaved (30%) species in the total fellings in the Russian Federation (from UNECE/FAO, 2000).

Forest type	Growing stock mature forest (m³ o.b. ha⁻¹)	Conversion factor (felled / produced)	Produced volume (m ³ u.b. ha ⁻¹)
Coniferous	156	1.45	108
Broadleaf	152	1.45	105
Combined	155	1.45	107

2.2 New Forest Code

Since 1 January 2007 a new Forest Code is effective in the Russian Federation. With the goal to better control harvesting and reduce illegal logging and to attract foreign investment this new forest law will transfer more control over forest management and protection to regional governments. Full implementation of the Code, however, has been hampered by a reorganisation of the Ministry of Forestry.

With this new Code, the system of leasing exploitation plots will change. The opportunities for leasing of forest areas will increase, and at the same time the maximum duration of a lease contract will be reduced from 99 to 10-49 years (TRN, 2007, UNECE/FAO, 2008). With average sustainable cutting cycles of 100 years and

more, such shorter lease periods will not stimulate sustainable management, as stewardship of companies will not be rewarded and companies will not experience the consequences of unsustainable management. Therefore especially environmental NGO's are concerned about the negative effect this may have on the management of forests. However, there still is a lot of confusion about how the Code will be implemented and the effect this will have on the Russian forest sector and the wood chain to the Netherlands.

In an early amendment to the code in July 2007, administrative barriers were removed to further facilitate the process to bring old forest lease contracts into compliance with the new Code (UNECE/FAO, 2008). At this moment (end of 2008) in all regions the regional forest management services are busy renewing all contracts on forest exploitation.

The new Forest Code foresees privatisation of forest lands, linking ownership to land tenure. It does however not clarify its relation to the Land code and so creates confusion on use of agricultural and urban forests. A new classification of forest use types is more in line with international classification systems (TRN, 2007). Some important types of protected forest are, however, not in the classification any longer (TRN, 2007), which endangers the protected status of these forests.

As a result of the decentralisation of forest governance, designation of protected areas across regional boundaries will likely become more difficult. A further complicating factor for protected areas may be that forest areas will be governed at regional level, while other non-forested areas are governed at a federal level (TRN, 2007).

In the new Code limitations on construction, industrial development and mineral resource extraction from forest areas have been reduced, potentially leading to stronger environmental degradation of forest areas. An amendment to the Code was drafted by the Ministry of Natural Resources that aims to reduce the time needed to re-classify reserve forests land for geological exploration (UNECE/FAO, 2008). For instance environmental impact assessments are no longer mandatory requirements for any developments in forest areas (TRN, 2007).

The definitions of terms used are not well defined in the new forest Code (TRN, 2007), which could lead to different interpretations and use of different use in regional regulations. The different alternative ways to interpret the Code and the difficult and unregulated transition to a decentralised system will likely increase the possibilities for uncontrolled and illegal logging

2.3 Export tax for round wood logs

Since 1 July 2007 the Russian government is gradually increasing the export tax on round wood logs (CIBC, 2007, Turner et al., 2008, UNECE/FAO, 2008). The objective of this new tax is to reduce the amount of exported logs and increase the

level of value-added wood processing in the Russian Federation because value added products are expected to yield relatively more profits than unprocessed stem wood.

The tax level is increased from an *ad valorum* (as a percentage of the good's value) level of 6.5% (minimum 6 Euros per m³) to 20% (minimum 10 Euros m⁻³) on 1 July 2007 and 25% (minimum 15 Euros per m³) on 1 April 2008. For coniferous round wood a further increase to 80% (minimum 50 Euros per m³) is expected from 1 January 2009 onwards (Turner et al., 2008) and possibly for all round wood on 1 January 2011 (Pirhonen et al., 2008). At the same time the import duties on wood processing equipment has been reduced.

Since Russia is the largest exporter of round wood world wide, the tax level increases will likely affect the forest sector world wide (Turner et al., 2008). For instance the most recent tax increase to 25% already resulted in a strong decline in Russian log exports. In the first quarter of 2008 exports to Europe fell by 44% and to Asia by 15% compared to the first quarter in 2007 (Turner et al., 2008, UNECE/FAO, 2008).

It is not unlikely that the further increase to 80% on 1 January 2009 will end export of Russian logs altogether (UNECE/FAO, 2008). The important question then is whether the taxes will sufficiently boost value added production in and export from the Russian Federation to compensate for the reduced log exports (CIBC, 2007, UNECE/FAO, 2008). There is, however, some evidence of increased foreign investment in the Russian wood processing industries (UNECE/FAO, 2008), which may also offer opportunities for Dutch companies.

Of the total of Russia's round wood exports, the People's Republic of China, Finland, Japan and Sweden import more than 64%. Although this new tax will directly affect trade of logs between the Russian Federation and these countries, this will also have world wide effects on prices of logs and other wood products (Turner et al., 2008) and thus also affect the Dutch forest based sector. Still, indirect effects through imports from Finland would be strongest for round wood trade (Moiseyev, personal communication). Since the Netherlands hardly imports round wood from Finland, the indirect effects are also likely to be negligible.

Currently an emerging European - Russian conflict on the Russian log export taxes also affects the negotiations on Russian accession to the World Trade Organisation (WTO).

2.4 Reconnaissance survey of wood chains from European Russia

To assess world wide imports and exports of wood based products for the Russian Federation and the Netherlands and the specific trade flows between these two countries, we used the EFI-WFSE Forest Products Trade Flow database (Michie and Philip, 2002). This database is built by the European Forest Institute (EFI) in collaboration with World Forests, Society and Environment (WFSE) program and is

based on the UN-COMTRADE trade data that are compiled by the United Nations Statistics Division (UNSD).

2.4.1 Timber exports from Russia

The Russian wood and paper industries contribute 1.6% to the annual GDP of the country (in 2000, World Bank, 2005). The total world wide exports of all wood products from Russia increased from 26.8 million m³ round wood equivalents (r.e.) in 1996 to 76.9 million m³ r.e. in 2006 (Figure 1), of which more that 55% was exported as industrial round wood. Over the time period the share of coniferous round wood in total exports was between 41% and 53%, while the share of non-coniferous round wood gradually decreased from 25 to 18%.

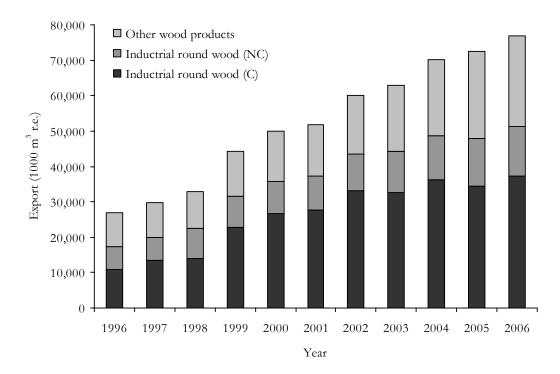


Figure 1. Export of all wood products and the shares of coniferous (C) and non-coniferous (NC) industrial round wood from the Russian Federation. Data source: EFI-WFSE Forest Products Trade Flow database (Michie and Philip, 2002).

More than 64% of all Russian round wood exports go the People's Republic of China, Finland, Japan and Sweden (Figure 2). China is becoming an increasingly dominant buyer of Russian wood.

The majority of the timber exported from North-West Russia is imported by countries in the European Union, which accounts for roughly between half and two-thirds of the production from this part of the Russia Federation (WWF, 2005). Most of it is imported by Finland as pulpwood, but also the Netherlands is one of the main buyers of sawn wood, and pulp and paper. An important indirect flow of Russian wood to the EU goes through Estonia to Finland and Sweden (WWF, 2005).

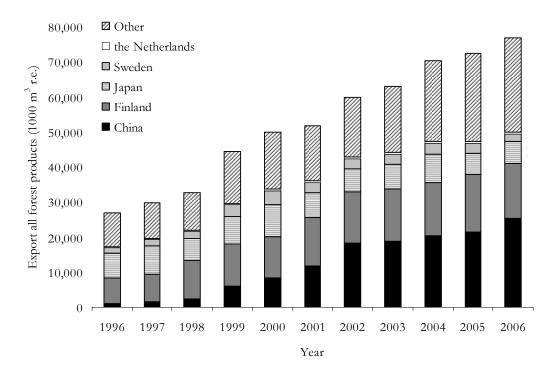


Figure 2. Russian exports of all forest products (1000 m³ r.e.) to the most important importing countries (64% in 2006), China (33% in 2006), Finland (23% in 2006), Japan (8.2% in 2006), Sweden (2.8% in 2006), and additionally the Netherlands (0.65% in 2006) and the rest of the world (35% in 2006). Data source: EFI-WFSE Forest Products Trade Flow database (Michie and Philip, 2002).

The Russian Federation has a large trade surplus in paper volume, but this is only representing a slight net trade surplus in value. This is mainly caused by import of more expensive high quality grades of paper and export of low quality paper and paperboard (UNECE/FAO, 2008).

2.4.2 Wood trade flows between the Russian Federation and the Netherlands

Because export and import data were not always the same, we only used the export data as an indication of trade flows between the Russian Federation and the Netherlands. The Russian Federation has a large trade surplus of wood products to the Netherlands.

The total volume of wood products exported from the Russian Federation to the Netherlands increased from 323,334 m³ in 1996 to 486,118 m³ in 2006 (Table 3), representing respectively a value of 53.9 million US dollars (42.5 million Euros) and 97.6 million US dollars (77.6 million Euros) (Euros based on OECD exchange rate, OECD, 2008) (Figure 3 and Figure 4). In 2006 the share of wood products in the total export value of goods to the Netherlands is only 0.7% (based on data from CBS, 2008).

At the same time the share of exports to the Netherlands compared to total Russian wood exports reduced from 1.21% to 0.65% (Table 3). In respect to export volumes in 2006 the Netherlands ranked 19th largest importer of Russian wood products. This means that total exports grew much faster than the exports to the Netherlands (see Figure 2), but also that the Dutch market is rather small for Russian exports.

Table 3. Volume (m³ round wood equivalents (r.e.)) and value of Russian export of wood products to the Netherlands. Exported volumes are also given as % of the total Russian export and % of total industrial round wood production (Table 1). Based on the production estimates per hectare (Table 2) the area needed to produce the industrial round wood used for export to the Netherlands is calculated. Source of export volume and value data: : EFI-WFSE Forest Products Trade Flow database (Michie and Philip, 2002).

Year	Export		% of total e	% of total exports		Area needed
	Volume	Value (1000	Volume	Value	production	(km^2)
	$(m^3 r.e.)$	US dollar)				
1996	323,334	53,893	1.21%	1.77%	0.44%	30.22
1997	316,358	54,574	1.06%	1.78%	0.36%	29.57
1998	339,922	51,315	1.04%	1.71%	0.44%	31.77
1999	483,906	61,487	1.09%	1.82%	0.51%	45.22
2000	499,351	66,123	1.00%	1.63%	0.47%	46.67
2001	462,216	60,542	0.89%	1.51%	0.39%	43.20
2002	513,796	62,348	0.86%	1.36%	0.43%	48.02
2003	486,118	74,799	0.77%	1.41%	0.38%	45.43
2004	435,723	72,913	0.62%	1.09%	0.33%	40.72
2005	493,895	75,816	0.68%	0.95%	0.36%	46.16
2006	498,089	97,637	0.65%	1.07%	0.34%	46.55

From 1996 to 2006 the total exports of wood products from the Netherlands to the Russian federation increased from 4,192 m³ to 22,322 m³, representing a value of 4,733 and 30,012 US dollars respectively. In 1996 the export to Russia amounted to 0.11% of the total Dutch exports of wood products, which increased to 0.23% in 2006 (Figure 3 and Figure 4).

Sawn wood makes up the largest share of all wood products exported to the Netherlands, which in 2006 contributed 423,786 m³ (85% of total volume) and had a value of 67 million US dollars (69% of total value). Most of this timber is sawn Norway spruce (*Picea abies*). Pine and larch make up only a very small part. (pers. comm. Pont Centrop Sept 2008). Other important wood products exported to the Netherlands were plywood, pulpwood and paper.



Figure 3. Exported volumes (m³ r.e.) of wood products from Russia to the Netherlands (light bars) and from the Netherlands to Russia (dark bars). Data source: EFI-WFSE Forest Products Trade Flow database (Michie and Philip, 2002).

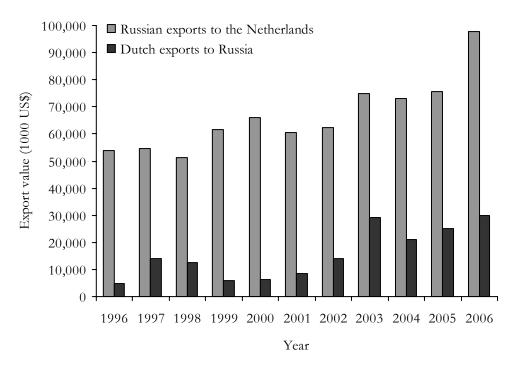


Figure 4. Value (1000 US dollars) of wood products exported from Russia to the Netherlands (light bars) and exported from the Netherlands to Russia (dark bars). Data source: EFI-WFSE Forest Products Trade Flow database (Michie and Philip, 2002).

From wood products exported from the Netherlands to the Russian federation Paper makes up the largest share with 15,856 metric ton with a value of 24.8 million US dollars. There exists, however, a large difference in paper quality and price between the paper and paperboard that the Russian Federation exports to and imports from the Netherlands. For example, in 2006 the Russian Federation exported 16,291 ton of paper and paperboard to the Netherlands while it imported slightly less, 15,843 ton. The value of the exported paper and paperboard was, however, with 7.6 million US dollar (or 470 US dollar per ton of paper) much lower than the value of the volume imported from the Netherlands, which was 19.2 million US dollar (or 1,209 US dollar per ton of paper) (Table 4).

Table 4. Paper and paper board trade between the Russian Federation and the Netherlands. Russian export of paper and paperboard to the Netherlands, and imports from the Netherlands expressed in terms of volume (metric ton), value (1000 US dollars) and value per unit of traded volume (US\$ per ton paper). Data source: EFI-WFSE Forest Products Trade Flow database (Michie and Philip, 2002).

	Volume (met	tric ton)	Value (1000) US\$)	Value/volum	ne (US\$ / ton)
Year	Export	Import	Export	Import	Export	Import
1996	5,663	2,141	2,497	2,860	441	1,336
1997	3,487	3,140	1,287	8,298	369	2,643
1998	10,998	3,932	4,406	6,712	401	1,707
1999	12,378	5,432	4,416	2,984	357	549
2000	11,323	5,146	4,056	3,200	358	622
2001	13,088	5,780	6,125	3,923	468	679
2002	10,938	11,869	4,373	8,875	400	748
2003	6,715	15,024	2,840	21,185	423	1,410
2004	2,701	20,995	1,344	35,148	498	1,674
2005	7,095	17,602	3,140	17,849	443	1,014
2006	16,291	15,843	7,664	19,151	470	1,209

Generally the wood pulp used in paper comes from several sources. It is estimated that as much as 25% of the wood used in paper and wood products exported by Finland originates from Russia. These indirect imports of Russian wood don't show up in the current analysis.

In the import data for the Netherlands, in 2006 a large increase in imports of wood residues was found. Probably this is the result of increased import of pellets from the Russian Federation. Also wrapping paper and other wrapping paper products significantly increased in 2005 and 2006 compared to the years before.

In the import data for the Netherlands, in 2006 a large increase in imports of wood residues was found. Probably this is the result of increased import of pellets from the Russian Federation. Also wrapping paper and other wrapping paper products significantly increased in 2005 and 2006 compared to the years before.

We have not yet received information from FSC on actual volumes of Dutch import of FSC certified wood from the Russian Federation, but we estimate that it is rather limited.

Overview of sustainability issues in Russian forestry, focusing on the European part of Russia

The Russian Federation takes part in most international commitments regarding sustainable use and protection of forests, like the UN Forum on Forests (UNFF), UN convention on protection of biodiversity (CBD), Pan-European Process on the Protection of Forests in Europe (MCPFE), the Montreal process on criteria and indicators for protection and sustainable use of temperate and boreal forests (UNECE/FAO/MCPFE, 2007).

3.1 Forest certification in the Russian Federation

The Russian National Council for Forest Certification (RNCFC) has developed a Forest Management and Forest Use Standard that complies with the requirements of the Program for the Endorsement of Forest Certification Schemes (PEFC) and is harmonised with the requirements of the Forest Stewardship Council (FSC). This Standard has been submitted to the PEFC Council for endorsement and recognition. A Finnish consultancy firm has been appointed to perform an independent assessment of the Standard. The procedure is almost finished and at the time of writing (end of 2008) it was expected that endorsement could be effective any time. It is clear, however, that awaiting this endorsement there is not yet any PEFC certified timber available from Russia.

The number of FSC certified forests in Russia amounts to 54 public and private forest enterprises bringing the total FSC certified forest area to 17,840,983 ha, approximately 2% of the total forest area in Russia.

Domestic demand for certified forest products is minor, which may benefit exports of certified products to the Netherlands and other European countries. So far, however, exports have not yet been constrained by a lack of certification (UNECE/FAO, 2008).

3.2 Illegal logging and trade

Illegal logging en illegal exports of wood are considered to be important issues in the Russian forestry sector. Illegal forestry activities lead to deforestation, economic loss and often or accompanied by violent conflicts. The illegal logging practices have several socio-economic, legal and sectoral causes (Roshchupkin, 2008). The high demand for Russian wood leads to high profits generated by illegal logging, while for the jobless and relatively poor population in forested areas illegal logging is an important livelihood strategy. Inadequate forest and customs legislation in combination with ineffective enforcement in remote areas further contributes to the

problem. Tracking of wood from the source to the costumer is still relatively poorly organised in Russia.

Currently it appears to be not very difficult to circumvent official requirements regarding legality of wood production and trade. The main reason identified as shortcomings in the official requirements are the paper based licensing systems that is vulnerable to forgery and fraud and is very time consuming to verify (Ottitsch et al., 2005). Another apparent shortcoming is that for exporting timber a logging license is only needed to get a phyto-sanitary certificate (Ottitsch et al., 2005). For export, no proof for origin of the wood has to be presented.

At the same time private companies buying and trading wood have systems in place to prove the origin of the wood (Ottitsch et al., 2005). Most of these systems are ISO 14001 and or EMAS certified, guaranteeing that the environmental management systems of these companies exclude illegal timber. About 75% of the timber that goes from North-West Russia to the EU is covered by such ISO certified system (Ottitsch et al., 2005). This is additional to FSC certified wood, which certification standard additionally guarantees the sustainability of the production.

Exact numbers of illegal logging and trade are difficult to assess, because these activities take place covertly. WWF (2005) assumes that 27% of the timber in North-West Russia, and even 50% of the timber from the far-east, which is mainly exported to China is from illegal sources. Another source estimates that approximately 10-30% of log exports to China are considered to be from illegal sources(UNECE/FAO, 2008).

The vast majority of the Russian wood imported into the EU originates from North-West Russia. Ottitsch et al (2005) estimated the scale of illegal logging based on the amount of exported wood that could not be explained by production, which ranged between 10 to 15% of the wood exported from North-West Russia to the EU.

According to the Russian Federal Forest Agency, however, illegal logging does not exceed 5 to 10% of the total amount of forest cuttings (Bolshakov, 2004). According the same sources, illegal logging only takes place in those territories with valuable trees and access to infrastructure and markets and close to the borders, with mainly Finland and China (i.e. North-West, Siberia and Fareast regions) (Bolshakov, 2004). With the increasing export taxes on round wood, the share of illegal exports is expected to rise in the coming years.

Illegal logging and associated trade have been estimated to lead to decreasing market prices for both legal and illegal round wood by 5 to 10% (Ottitsch et al., 2005). In the same study Ottitsch et al. (2005) also calculated monetary losses for different stakeholders, based on three scenarios of different shares of illegal logging in North-West Russia (5%, 10% and 15%). They used three different approached for calculating these monetary losses. If only unpaid stumpage fees to the Government were taken into consideration the predicted losses amounted to 2.9, 5.3 and 7.6 million US\$ (at 5, 10 and 15% illegal logging respectively) annually. When taking into

account the impact of illegal wood on legally harvested volumes and prices, legal operators were estimated to lose 120.1, 201.3 and 274 million US\$ (Ottitsch et al., 2005). If the punitive fee that the government collects in court cases of illegal logging is a good estimator of actual losses, the Russia loses 187.5, 357.5 or 555 million US\$ annually. Justification for these latter numbers, however, has not been published by the Russian government (Ottitsch et al., 2005).

FSC certified wood (or from another approved forest certification standard) should always be preferred to guarantee sustainable production. However, if not sufficient certified wood is available, buyers should be encouraged to obtain the wood from an ISO 14001 or EMAS certified supplier.

3.3 ENA-FLEG

In 2001 the World Bank initiated a Forest Law Enforcement and Governance program to address growing awareness concerning the negative effects of illegal logging in the main wood producing and exporting countries (Contreras-Hermosilla, 2007). Since the start of the program several regional Ministerial processes have taken place in East Asia, Africa and Europe and North Asia (ENA FLEG) (World Bank, 2006). The ENA FLEG process commenced with a Ministerial Conference in St Petersburg, organised by the Russian Federation. In the resulting St Petersburg declaration a course of action at national and international levels was agreed.

In April 2006, the president of the Russian Federation mandated the creation of a National Action Plan (NAP) to reduce illegal logging and associated crimes and trade. This action plan has been developed in 2007 in partnership with the private sector, NGO's and civil society (World Bank, 2006). Activities are drafted around four objectives (Contreras-Hermosilla, 2007, World Bank, 2007a, 2007b):

- 1. Increasing regulatory and legal support to prevent illegal logging and trade. Activities include updating of the legislative and regulatory framework in the new Forest Code, establishment of a forest management information system to track wood from its source to the consumer and procedures for governing interactions with regional authorities, and their authority and mandates (Contreras-Hermosilla, 2007). Since the implementation of the new Forest Code, including transfer of authority and mandates to the regional governments is very difficult, this will very likely also affect and slow down the ENA FLEG process (see 2.2, page 12).
- 2. Developing better organisational structures and processes to prevent illegal logging and trade. Activities include improvement of interagency cooperation, promoting forest certification (see also 3.1, page 21) and the development of a forest monitoring system using remote sensing of the whole forest estate (Contreras-Hermosilla,

2007).

- Improving wood export regulations.
 Activities include control on exports of valuable species and species that are not allowed to be logged (Contreras-Hermosilla, 2007).
- 4. Developing international cooperation.

 Activities include implementation of international agreements and initiatives to combat the international trade in illegally produced wood (Contreras-Hermosilla, 2007).

In a joint effort of WWF and the Russian Ministry of Natural Resources in the Evreiskaya Autonomous Oblast, in the Russian Far East, unscheduled raids, prevention of illegal loggers getting entwined with organised crime, disqualification of offenders from holding forest leases, and improved understanding between Chinese timber companies operating in Russia and Russian control agencies were identified as important key elements for successful control over illegal logging. Also a new forest monitoring system that was agreed on in the NAP and includes 100% remote sensing of all commercially exploited areas starts to produce concrete results against illegal logging (Contreras-Hermosilla, 2007, World Bank, 2006).

An important achievement of the (ENA) FLEG program is that it has generated high level political commitment and has put illegal logging higher on the agenda in international forums. Yet, only if stakeholders in the process are certain of sustained long term donor support, long-term action plans will be implemented. Reliable donor coordination and committed long-term support are essential for progress of the process.

Ottitsch et al. (2005) assessed the trade and economic effects of different scenarios of implementation of FLEGT measures in the European part of Russia using a global forest sector trade model (EFI-GTM, Kallio et al., 2004). These scenarios assumed a 100% effectiveness of FLEGT measures and three different levels of reduction of the wood from unknown (illegal) sources (5, 10 and 15%), which was subtracted from total trade or production. They compared the effects if only the share of wood from illegal sources was eliminated from trade (allowing substitution to the internal Russian wood consumption), or if total illegal production would be eliminated altogether.

On the medium and long-term banning illegal logging will mainly affect the Finnish pulp and paper industry (Ottitsch et al., 2005) as a result of reduced round wood trade. On the Russian side, the reduced production will have little effect on the pulp and paper industry, but it will have much more adverse effects on the Russian sawmilling and wood based industries (Ottitsch et al., 2005). The economic effect for the wood based industries in other EU countries, including the Netherlands will be very small.

3.4 UNFCCC

Russia is the third largest emitter of greenhouse gases, after China and the USA. Under the Kyoto Protocol, Russia is committed to stabilize its greenhouse gas emissions to 1990 levels by 2012. Currently Russian carbon emissions, however, are already projected well below the targets agreed upon, mainly as a consequence of economic collapse in the 1990's, which resulted in a reduction of industrial activities. As a result Russia has significant headroom of Assigned Amount Units (AAUs) to sell under Joint Implementation and International Emission Trading, which is in the order of 3 billion tones. As a result the urgency felt to reduce emissions from significant carbon sources like deforestation and forest degradation, appears to be limited.

3.5 Production efficiency

In general the amount of round wood needed to produce a certain amount of (semi-) finished product in the Russian Federation is rather similar to that in the Netherlands and the average for EU27 countries (Table 5 and Table 6). The efficiency of raw material use for sawn wood is better in Russia, while production of panels is more efficient in the EU27 and the Netherlands. The difference are the result of differences in technology, but is probably also determined by the type of species that are used.

Table 5. Conversion factors as used in the European forest sector outlook study (UNECE/FAO, 2005). Felling volume per m^3 of round wood production shows the conversion factors taking into account the under bark to over bark conversion, plus the differences between fellings and removals in countries (e.g. harvesting residues or losses).

Country	Felling volume per m3 of round	Volume of round wood (u.b) required to produce 1 m3 of product (m3)					
	wood production (m3)	Coniferous sawn wood	coniferous	board	Fibre board	Plywood	Veneer sheets
-			sawn wood				
Russian Federation	1.45	1.60	1.50	1.60	3.00	2.70	2.00
EU27	1.28	1.68	1.84	1.47	1.94	2.49	2.09
Netherlands	1.43	1.64	1.57	1.44	1.82	1.89	1.89

Table 6. Volume of round wood (under bark) required to produce one metric tonne of pulp product. Conversion factors as used in the European forest sector outlook study (UNECE/FAO, 2005).

Country		Volume of round wood (under bark) required to produce one metric tonne of product (m3)						
	Mechanical pulp	Chemical pulp	Semi- chemical pulp	News print	Printing & writing paper	Paper board	Recovered paper	
Russian Federation	2.50	5.20	2.90	3.50	4.20	3.80	3.80	
EU27	2.46	4.70	2.82	3.20	4.00	3.45	3.80	
Netherlands	2.27	4.48	2.86	3.20	4.00	3.39	3.80	

4 Dutch aspects of the wood chain

4.1 Biodiversity policy plan

In the Policy Programme Biodiversity 2008 – 2010 of the Government of the Netherlands, the ecological footprint of the Netherlands abroad is considered large. Timber is one of the resources that is mentioned as a priority: the Government has set as a goal that by 2010 only sustainably produced timber will be procured by governmental agencies. Next to that the Government strives for at least 50% sustainably produced timber by the year 2011 on the Dutch market.

Furthermore a Task Force Biodiversity and Natural Resources has been established under the chairmanship of former Minister for the Environment Hans Alders. The Task Force will provide the Government with suggestions for the conservation and sustainable use of biodiversity in the long run. The Task Force has been established also at the request of the Dutch trade and industry and will seek to form public-private partnerships in order to involve trade and industry with biodiversity.

4.2 Stricter procurement regulations - TPAC

In Europe and North America, governments are investing efforts in developing and refining public timber procurement policies. Although these efforts differ in their approaches and details, forest and chain of custody certification are a common basis in all countries.

The objective in the Netherlands timber procurement is that from 2010 onwards 100% of the wood and wood based products used by the Netherlands national government should be from sustainably managed forests. The Netherlands government established the Timber Procurement Assessment Committee (TPAC), which will evaluate global and national forest certification standards against a set of criteria and indicators that should guarantee sustainable production of wood. Only wood from approved certification standards will be allowed.

In November 2008 the results of the first assessment by the TPAC were announced. FSC International, PEFC Germany and PEFC Finland have been approved, which means that their certification standards meet the Dutch procurement criteria. The decision of conformity of FSC, means that also all the national standards, including the Russian standard, have been approved. The international PEFC standard is currently being assessed.

Since it is not completely certain yet whether or when the Russian PEFC standard will be endorsed by PEFC and the international PEFC standard still needs to be approved by the TPAC, at this moment only FSC certification guarantees future positive procurement of Russian wood by the Dutch government.

4.3 VVNH & Keurhout

All members of the Netherlands Timber Trade Association (NTTA, in Dutch VVNH) have endorsed a code of conduct that obliges them to preferably deal in timber that is demonstrably originating from sustainably managed forests (read certified timber) and that they only bring timber on the Netherlands market from legal sources. They will also dedicate themselves constructively to developments that will lead to more certified timber on the Netherlands market and will search for new production areas with sustainable forestry.

In the NTTA Policy Plan 2006 -2009", "The roots of timber", the Association states that the 2 primary objectives are that by 2009 certainty exists as to the origins of all timber traded by NTTA members and that by 2009 75% of all timber imported and traded by NTTA members should originate from demonstrably sustainable forests. Of the 3 secondary objectives one states that by 2009 all softwood imported by NTTA members should originate from demonstrably sustainable forests.

Based on Minimum Demands for Certification and Sustainable Forest Management, developed in 1997 by the government of the Netherlands, the Keurhout Foundation was established. The Keurhout system aimed to ensure that any certificate for sustainable forest management bearing its logo was found to comply with the just mentioned minimum demands of the government of the Netherlands after being assessed by an independent College of Experts, thus creating clearness in array of certificates.

In December 2003 the Keurhout Foundation ended all its activities due to low demand for certified timber in the Dutch market. The NTTA then decided to continue the essential activities of the system under the name Keurhout. The Keurhout logo and the database with certificates have been continued and the College of Experts was asked to continue its work in an independent way.

4.4 Bio-fuels

Across Europe government subsidies have enabled households, companies and power plants to invest in pellet burning capacity. Wood pellets have the advantage over other solid wood fuels that they are much easier to be handled and transported (UNECE/FAO, 2008).

Wood pellet production capacity is increasing in the UNECE region, including the Russian Federation. The international trade markets for pellets are evolving quickly (UNECE/FAO, 2008). The Netherlands, with a relatively small forest industry has become the largest net importer of pellets (1.4 million tons in 2007). These are mainly co-fired with coal in large power plants and not so much used in biomass heating in households (UNECE/FAO, 2008). On the other hand, the Russian Federation, where production is mainly for export to Europe, is the fifth largest net exporter of pellets with 250,000 tons exported in 2007. In the future, this could

potentially become an important wood based product for trade between the Netherlands and the Russian Federation.

4.5 Dutch importers active on the market of Russian wood products

The firm of Bekahout in Gramsbergen imports annually about 9 to 10,000 m³ of the high quality species of Siberian Larch from the area of Lake Baikal and Novosibirsk. Bekahout says that following the Code of Conduct of the NTTA (see below) in 2009 it will only import certified timber from Russia, either FSC of PEFC, depending however on how much certified timber will be on offer.

One of the main importers of Russian timber is the firm of Pont Meyer from Zaandam. This firm imports annually about 100,000 m³ of timber of which 95% spruce. Pont Meyer has a policy to import only FSC certified timber although this is not profitable since demand for certified timber in the Netherlands is still negligible. Pont Myer therefore claims that it is losing approximately 4 euros per m³ of timber because of the price difference between certified and non-certified timber. Pont Meyer is prepared to carry this loss with a view to the future, expecting that the market for certified timber will improve, certainly with the policy of the Dutch government in mind for the procurement of certified timber.

Pont Meyer described the situation on the Russian timber market as rather chaotic. There is no clear policy, there are no known officials responsible for such a policy and Russian traders choose foreign trade partners based on personal preferences and traditions, not market reasons.

Dutch timber traders have indicated that although they did not have direct encounters with mafia type individuals or groups, they are aware of their presence and they realize that they run a certain risk trading in Russia.

5 Conclusions and recommendations

5.1 Main conclusions

Sustainability difficult to assess

Sustainability of the wood chain between Russia and The Netherlands is difficult to assess because:

- Forestry in Russia is an activity covering huge, predominantly remote areas where monitoring and control are poorly developed;
- Forest legislation in Russia has changed considerably since perestroika, and legal regulations at various administrative levels have not yet reached a new balance;
- Forest certification in Russia is a recent development; the market for certified wood for export has not yet developed, whereas the demand for (uncertified) wood within Russia is large;
- The (relatively insignificant) trade in forest products between Russia en The Netherlands is largely uncoordinated, based on personal connections and trust rather than on institutionalised relationships.

Limited certification of the wood chain

Illegal logging and associated trade – accounting for 5 to 15% of the total amount of wood produced – are important issues in the Russian Federation. At the moment tracking of wood from its origin is poorly organised and it appears to be not very difficult to circumvent official legal requirements. Only FSC – and to a lesser extent ISO 140001 and EMAS – certified companies that buy and trade wood have systems in place to prove the origin of the wood. However, FSC certified wood makes up a limited proportion of the wood arriving from Russia to the Netherlands.

ENA-FLEG process supported and hampered at the same time

The ENA-Fleg program to address the illegal logging appears to be well on track and has generated high level political commitment to fight illegal logging. Also in the framework of this program a National Action Plan has been drafted and necessary activities have been identified. The difficulties of the implementation of the new forest code, however, will probably affect and slow down the ENA-Fleg process. The increasing level of tax on round wood exports is expected to aggravate the situation and increase illegal forestry activities (see below).

Lacking coordination of the wood trade

From discussions with importers of Russian timber in the Netherlands it becomes clear that the situation within the Russian Federation with respect to policy is rather anarchistic. There are no rules, Russian traders often choose trading partners for personal, not market reasons and there is not a clear field of players.

Large losses in non-certified forestry

One of the most important unsustainable aspects of Russian forestry is that wood production from non-certified forests in the Russian Federation is characterised by

relatively large losses, mainly as a result of leaving felled trees at felling areas when these become inaccessible after the soil thaws in spring. These losses can be as much as 15% to 30% of the felled volumes, which will likely increase considerably when in the future soils thaw earlier in the year as a result of climate change (see section 2.1, page 11).

The Netherlands minor importer

The wood exports from Russia to the Netherlands are rather limited and only make up 0.65% (486 thousand m³) of the total wood exports from the Russian Federation in 2006, which totalled 76.7 million m³ round wood equivalents. This makes the Netherlands only the 19th largest importer of wood from the Russian Federation. The total value of exports of wood based products to the Netherlands was only 0.7% of the total value of all Russian exports to the Netherlands.

Forest Code changed in 2007: less clarity

A complicating factor for the sustainable development of the Russian forest sector is the new Forest Code. This code since 2007 transfers control over forests from the federal government to regional governments. The objective of this change was to better control forest harvesting which should result in a reduction of illegal logging and attract foreign investment in the sector. However, so far, the transition to a decentralised system is difficult and rather unregulated. This is partly caused by a reorganisation of the Ministry of Forestry, but also because of unclear and badly defined definitions and terms in the Code, which allow multiple interpretations (see section 2.2, page 12).

The new Forest Code includes changes in forest administration and incentives that potentially could lead to a reduction of sustainability, either directly as a consequence of more open regulations (e.g. reduced limitations on resource extraction and shorter lease contracts) or through increased illegal logging activities (e.g. promoted by unclear definitions in the Code and an unregulated transition period) (see section 2.2, page 12).

Export tax on round wood not to affect imports into The Netherlands

A further complication in the sustainable management of forests in Russia is the export tax level for round wood which is gradually increasing and expected to further increase to 80% on 1 January 2009. The objective of this tax increase is to stimulate processing of the wood and generate more added value in the Russian Federation. However, processing capacity is likely to be insufficient to compensate for decreased export of logs. It is considered not unlikely that as a result of the increased export tax, total round wood exports will stop. Although this will have a world wide effect on prices of logs and other wood products, it will probably mainly affect the industry in the Russian Federation and its most important importers, China and Finland. Because the Netherlands hardly import any round wood, the economic effects will probably be relatively small (see section 2.4, page 13).

5.2 Limitations of the study

One of the goals of this study was to indicate "who is who in Russian timber trade land". This however was hampered by that fact that the consulted Russian contacts in forestry could not pinpoint actors at policy level, neither in the Ministry of Economic Affairs nor in the Ministry of Agriculture or in Chambers of Commerce. Therefore it has been decided to spend less time in Moscow looking for such contacts but focus the study on other information sources: Dutch timber traders with experience in Russia, international forestry experts, literature and official documentation. Much of the literature and the documents used in this study, however, are from or based on information from NGO's and the Russian government. This means that not all information used is necessarily from independent and objective sources. Where possible we included information from several different sources, but this was not always possible. Some of the information from for instance the World Bank documents is based on plans by the Russian government. It is not always possible to exactly asses to what extent these plans are actually implemented.

5.3 Policy recommendations

Promote certified wood supply

It is expected that the demand for certified wood in the Netherlands will increase because of the governmental timber procurement policy to only use certified wood for governmental purposes as from 2010. At this moment only FSC certified wood qualifies for such procurement. Therefore FSC forest certification in Russia should be promoted and access for Dutch buyers facilitated. The same counts for PEFC Russia, if the PEFC standard for Russia becomes endorsed by PEFC and approved by the TPAC. If FSC or PEFC certified wood is not available, buyers should be encouraged to buy wood from ISO 40001 or EMAS certified suppliers.

Capacity building needed

Sustainable forest management in Russia is still not as well developed as in Western countries resulting in a shortage of certified timber. The Netherlands could assist Russia in capacity building for sustainable forest management and independent certification of sustainably produced timber, possibly focusing on a few target regions. Basic conditions for such capacity building have been developed in earlier cooperation projects under the Dutch BBI-Matra scheme, e.g. for the Kostroma Oblast. The Model Forest approach practiced there is the first link in the wood chain. Continued involvement in this region could provide a high efficiency of cooperation efforts.

Key persons still to be identified

Contacts with Chambers of Commerce in Moscow and St Petersburg and with the Ministry of Trade should be developed. It is advisable to maintain contacts with traders and NGO's as well, in order to ascertain whether this field becomes more

transparent. Although The Netherlands is a minor trade partner of Russia in wood products, it could become an acknowledged promoter of sustainable wood chains.

Combating illegal logging

The further implementation of the actions defined under the ENA-Fleg program would benefit from structural monitoring of progress. This would require long-term financial and cooperative support and commitment in an international (EU) effort. ENA-Fleg principles should pro-actively be adopted as conditional for all Dutch official initiatives in the forest sector.

Further processing to add value to wood products: investment opportunities

The evolving trade markets for pellets for bio-fuel in which the Netherlands is becoming an important importer and the Russian Federation evolves as a net exporter could potentially be used for further intensification of wood based trade between both countries. In the same time this might considerably reduce the large amount of unused waste products from the forest sector in Russia. The transformation to more value-added processing in the Russian Federation may offer Dutch companies new investment opportunities.

5.4 Recommendations for further study

Identify potential target regions

Since procurement of certified wood is a priority issue for the Dutch government and supply of certified wood is still scattered in the Russian Federation, it would be helpful to identify the regions in Russia with the highest opportunities for producing certified wood for the Dutch market. This would not only require a study of available wood stocks, transport and processing facilities in relevant Russian regions, but also institutional capacity for certification procedures. Also the development in the potential demand on the Dutch side should be assessed.

Improve knowledge on management of secondary forest

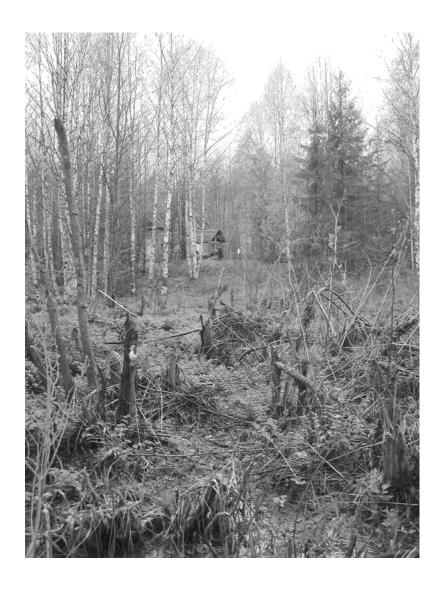
Most of the wood produced in European Russia is from second or third generation forests. There is an apparent lack of knowledge in managing secondary forest enhancing optimal conditions for re-growth and for biodiversity in the same time. Also non-timber products like game, mushrooms and berries may play an important role in the sustainable management of secondary forests. A targeted study into these aspects may considerably enhance capacity building in this area.

Assess vulnerability for log losses

Potentially the negative effects of climate change on log losses resulting from spring thaw can be very large. In this respect studies are needed to assess vulnerability of forest areas in the Russian Federation and work out new forest management principles for more sustainable management of these areas.

Consider feasibility to produce added value of wood products

A feasibility study for investments in the processing of high value wood products like pellets for bio-fuel may reveal important commercial opportunities for both Dutch companies and Russian entrepreneurs.



Literature

- Bolshakov B., 2004. National Report of the Russian Federation on Illegal Logging and Trade of Illegally Derived Forest Products. Joint UNECE/FAO Workshop on Illegal Logging and Trade of Illegally-derived Forest Products in the UNECE Region, Geneva, 16-17 September 2004. UNECE Timber Committee and the FAO European Forestry Commission, Geneva, Zwitserland.
- CBS, 2008. Handel naar goederensoorten en landen (excl. bijschattingen), Invoer van goederen uit Rusland. Centraal Bureau voor de Statistiek, Den Haag/Heerlen, the Netherlands. http://statline.cbs.nl/StatWeb/publication/?DM=SLNL&PA=70745NED &D1=a&D2=0&D3=0,42&D4=0-8,21,34,l&VW=T.
- CIBC, 2007. Russia Plans to Dramatically Increase its Export Tax on Logs. Equity Research Industry Update CIBC World Markets, New York, USA.
- Contreras-Hermosilla, A., 2007. Forest Law Enforcement and Governance program Review of implementation. The World Bank, Washington, USA.
- FAO, 2005. Global forest resources assessment 2005 Russian Federation country report.

 Global Forest Resources Assessment 2005 Country Report Series, Country Report 053. Food and Agriculture Organization of the United Nations, Rome, Italy.
- FAO, 2006. *Global forest resources assessment 2005*. Food and Agriculture Organization of the United Nations, Rome, Italy.
- FAO, 2008. FAOSTAT data. http://faostat.fao.org/site/626/default.aspx#ancor.
- Gerasimov Y. and T. Karjalainen, 2006. Development of wood procurement in Northwest Russia: round wood balance and unreported flows. *European Journal of Forest Research*, 125:189-199.
- Kallio, A. M. I., Moiseyev, A., and Solberg, B., 2004. *The global forest sector model EFI-GTM The model structure.* EFI Internal report 15 European Forest Research Institute, Joensuu, Finland.
- Michie, B. and Philip, W., 2002. *EFI/WFSE Trade Flow Database General description*. European Forest Institute, Joensuu, Finland, 2000. Updated 2002.
- OECD, 2008. OECD Factbook 2008: Economic, Environmental and Social Statistics. http://puck.sourceoecd.org/vl=3342274/cl=48/nw=1/rpsv/factbook/index.htm.
- Ottitsch, A., Moiseyev, A., Burdin, N., and Kazusa, L., 2005. *Impacts of reduction of illegal logging in European Russia on the EU and European Russia forest sector and trade.* Technical Report 19 European Forest Institute, Joensuu, Finland.
- Pirhonen, I., Ollonqvist, P., Viitanen, J., Toropainen, M., and Bungov, V., 2008. Income and employment effects of change of roundwood use in Eastern Finland and the Republic of Karelia. Working Papers 70. Finnish Forest Research Institute, Vantaa, Finland.
- Pisarenko A. I., V. V. Strakhov, R. Päivinen et al., 2001. Development of forest resources in the European part of the Russian Federation. European Forest Institute, Joensuu, Finland and Koninklijke Brill NV, Leiden, The Netherlands.

- Roshchupkin, V., 2008. Concept of National Action Plan for preventing illegal logging and associated trade. Presentation by Mr. Valery Roshchupkin, Chief of the Federal Forestry Agency of Russia, at a news conference in Moscow on March 30, 2006. Working translation from Russian (courtesy of the World Bank). http://www.illegallogging.info/item_single.php?item=document&item_id=341&approach_id=
- TRN, 2007. Comments on the new Russian Forest Code. Briefing Note Taiga Rescue Network, Jokkmokk, Sweden.
- Turner J. A., J. Buongiorno, A. Katz, and S. Zhu, 2008. Implications of the Russian roundwood export tax for the Russian and global wood products sectors. *Scandinavian Journal of Forest Research*, 23:154-166.
- UNECE/FAO, 2000. Forest resources of Europe, CIS, North America, Australia, Japan and New Zealand. ECE/TIM/SP/17. United Nations, Geneva.
- UNECE/FAO, 2001. Forest and forest products country profile Russian Federation. ECE/TIM/SP/18. United Nations, New York and Geneva.
- UNECE/FAO, 2005. European forest sector outlook study. ECE/TIM/SP/20. United Nations, Geneva.
- UNECE/FAO, 2008. Forest products annual market review 2007-2008. Geneva Timber and Forest Study Paper 23, ECE/TIM/SP/23. UN Economic Commission for Europe and UN Food and Agriculture Organisation, Timber Section, Geneva, Switzerland.
- UNECE/FAO/MCPFE, 2007. Enquiry on the implementation of MCPFE commitments 2007 and reporting on MCPFE qualitative indicators for sustainable forest management Russian Federation. UN Economic Commission for Europe in cooperation with UN Food and Agriculture Organisation and Ministerial Conference on the Protection of Forests in Europe, Geneva, Switzerland.
- World Bank, 2005. From transition to development A Country Economic Memorandum for the Russian Federation. World Bank, Moscow, Russia.
- World Bank, 2006. The Antalya Workshop from Declaration to Action. Implementing the St. Petersburg Declaration on Forest Law Enforcement and Governance (FLEG) in Europe and North Asia (ENA). Workshop proceedings The World Bank, Washington, USA.
- World Bank, 2007a. The new Russian Forestry Code and National Action Plan for illegal logging. FLEG News Forest Law Enforcement & Governance Newsletter 5 World Bank, Washington, USA.
- World Bank, 2007b. The Russian Federation: Implementing the St. Petersburg FLEG Ministerial Declaration. FLEG News Forest Law Enforcement & Governance Newsletter 6 World Bank, Washington, USA.
- WWF, 2005. Failing the forests: Europe's illegal timber trade. WWF, Godalming, UK.

Appendix 1 - Persons and organisations consulted

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Eckhardt, A., medewerker Certificering en Milieu Pont Meyer NV, Zaandam

Johannisma, A., inkoper Heuvelman, Ouderkerk a/d IJssel

Lennips, J., inkoper Bekahout, Gramsbergen

Butter, M. den, inkoper PontCentrop Houtimport, Zaandam

Moiseyev, A., European Forest Institute, Joensuu, Finland. Dr. Moiseyev is senior researcher on forest products markets. He was contacted for information on the potential effects for the Netherlands of the increased export tax of logs from the Russian Federation.

Sinitsyn, M. International Forest Institute, Moscow